UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K

(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, 2019
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 001-09712

UNITED STATES CELLULAR CORPORATION
(Exact name of Registrant as specified in its charter)

Delaware	**62-1147325**
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)

8410 West Bryn Mawr, Chicago, Illinois 60631
(Address of principal executive offices) (Zip code)

Registrant's Telephone Number: (773) 399-8900

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Shares, $1 par value	USM	New York Stock Exchange
6.95% Senior Notes Due 2060	UZA	New York Stock Exchange
7.25% Senior Notes Due 2063	UZB	New York Stock Exchange
7.25% Senior Notes Due 2064	UZC	New York Stock Exchange

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

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 the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company,” and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☒	Accelerated filer	☐
Non-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 ☒

As of June 28, 2019, the aggregate market value of the registrant's Common Shares held by non-affiliates was approximately $703 million, based upon the closing price of the Common Shares on June 28, 2019, of $44.67, as reported by the New York Stock Exchange. For purposes hereof, it was assumed that each director, executive officer and holder of 10% or more of any class of voting equity security of U.S. Cellular is an affiliate.

The number of shares outstanding of each of the registrant's classes of common stock, as of January 31, 2020, is 53,142,600 Common Shares, $1 par value, and 33,005,900 Series A Common Shares, $1 par value.

DOCUMENTS INCORPORATED BY REFERENCE

Those sections or portions of the registrant's 2019 Annual Report to Shareholders (Annual Report), filed as Exhibit 13 hereto, and of the registrant’s Notice of Annual Meeting of Shareholders and Proxy Statement (Proxy Statement) to be filed prior to April 30, 2020, for the 2020 Annual Meeting of Shareholders scheduled to be held May 19, 2020, are herein incorporated by reference into Parts II and III of this report.

United States Cellular Corporation

Annual Report on Form 10-K
For the Period Ended December 31, 2019

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PART I

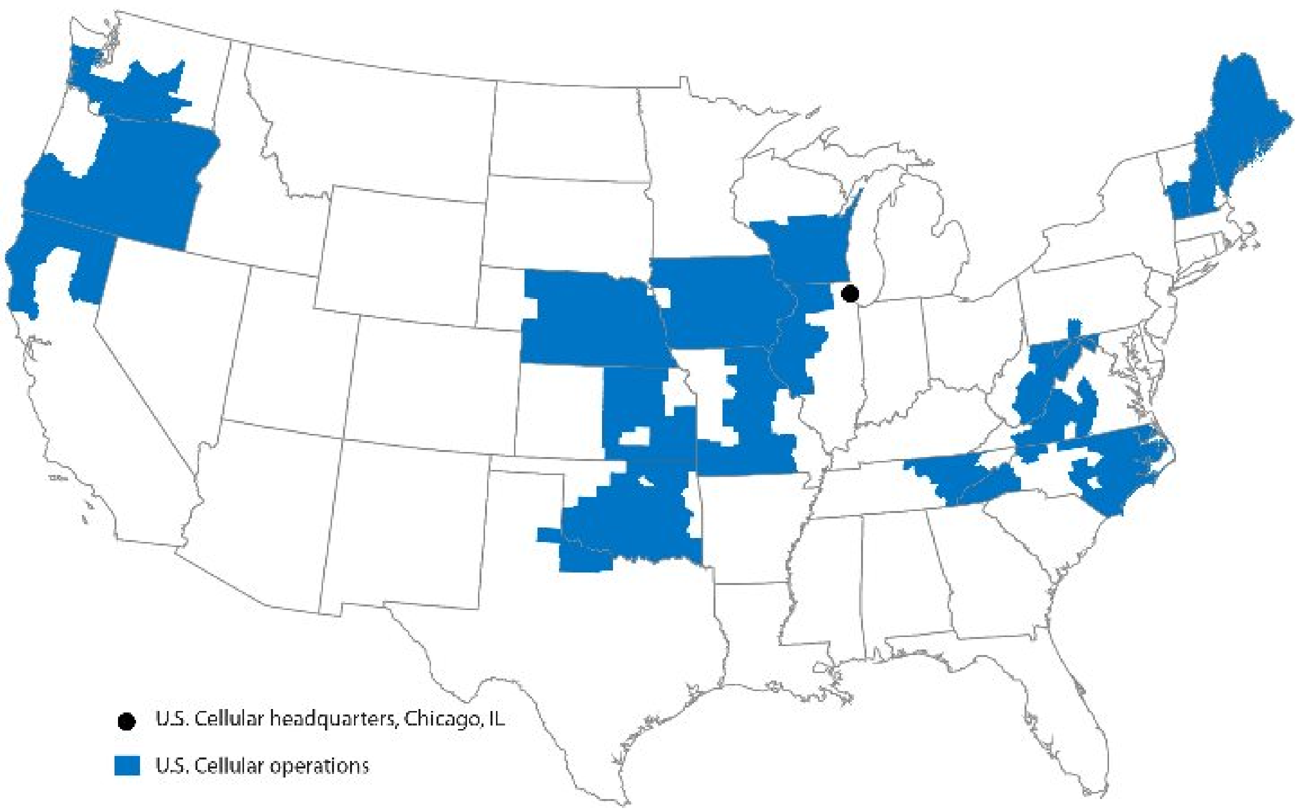
Item 1. Business

General

United States Cellular Corporation (U.S. Cellular) provides wireless telecommunications services to customers with 4.9 million connections in 20 states collectively representing a total population of 31 million. U.S. Cellular operates in one reportable segment, and all of its wireless operating markets are in the United States.

- U.S. Cellular's strategy is to attract and retain wireless customers through a value proposition comprised of a high-quality network, outstanding customer service, and competitive devices, plans and pricing, all provided with a local focus.
- U.S. Cellular Common Shares trade on the New York Stock Exchange (NYSE) under the ticker symbol "USM."
- U.S. Cellular is a majority-owned subsidiary of Telephone and Data Systems, Inc. (NYSE: TDS). As of December 31, 2019, TDS owns 82% of U.S. Cellular's Common Shares, has the voting power to elect all of the directors of U.S. Cellular and controls 96% of the voting power in matters other than the election of directors of U.S. Cellular.
- U.S. Cellular was incorporated under the laws of the state of Delaware in 1983.

The map below highlights areas of operation of U.S. Cellular's consolidated operating markets.



Customers, Services and Products

Customers. U.S. Cellular provides service to postpaid and prepaid customers from a variety of demographic segments. U.S. Cellular focuses on retail consumers, government entities, and business customers located in its service territories. These customers are served primarily through U.S. Cellular's retail and direct sales channels. U.S. Cellular builds customer loyalty by offering high-quality network services, outstanding customer-focused support services, competitive pricing, and other benefits as discussed further in "Marketing, Customer Service, and Sales and Distribution Channels" below.

Services. U.S. Cellular's customers are able to choose from a variety of national plans with voice, messaging and data usage options and pricing that are designed to fit different customer needs, usage patterns and budgets. Helping a customer find the right plan is an important element of U.S. Cellular's brand positioning. U.S. Cellular's national plans price all domestic calls as local calls, regardless of where they are made or received in the United States, with no long distance or roaming charges, made possible by roaming agreements with other wireless carriers. See "Network Technology, Roaming, and System Design" section below for further discussion related to roaming.

U.S. Cellular offers advanced wireless solutions to consumers and business and government customers, including a growing suite of connected machine-to-machine (M2M) solutions and software applications across the categories of monitor and control (e.g., sensors and cameras), business automation/operations (e.g., e-forms), communication (e.g., enterprise messaging, back-up router for business continuity services) and asset management (e.g., navigation system, fleet management). U.S. Cellular intends to continue to further enhance these offerings for customers in 2020 and beyond.

Devices and Products. U.S. Cellular offers a comprehensive range of wireless devices such as handsets, tablets, mobile hotspots, home phones and routers for use by its customers. U.S. Cellular offers wireless devices that are compatible with its 4G LTE and third generation (3G) networks and are compliant with the Federal Communications Commission (FCC) enhanced wireless 911 requirements. In addition, U.S. Cellular also offers a wide range of accessories, including wireless essentials such as cases, screen protectors, chargers, and memory cards as well as an assortment of consumer electronics such as headphones, smart speakers, wearables and home automation products (e.g., cameras, sensors, and thermostats).

New postpaid handset sales to retail consumers are made primarily under equipment installment plans (EIP); business and government customers may continue to purchase equipment under alternative plans subject to a service contract. For certain installment plans, after a specified period of time or number of payments, the customer may have the right to upgrade to a new device prior to reaching the end of the installment term, thus enabling customers to access the latest smartphones and provide a better overall customer experience.

U.S. Cellular also offers accessories for purchase on installment plans. These plans allow new and existing postpaid customers to purchase certain accessories payable over a specified time period.

U.S. Cellular offers its Device Protection+ program, which includes overnight delivery of a replacement device for damaged, lost and stolen devices, and AppleCare services for Apple iOS customers. Its Device Protection+ Advanced program also includes local or on-demand repair for eligible devices. In addition, U.S. Cellular offers a Trade-In program through which U.S. Cellular buys customers' used equipment.

U.S. Cellular offers a full array of iconic smartphones with options for both Android and iOS customers. U.S. Cellular continues to bolster its expanding smartphone portfolio with the Samsung Galaxy S® 10e and Note10/Note10+, the iPhone® 11/11 Pro/11 Pro Max, the Google Pixel 4, and the Motorola Moto e6. Along with the iconic devices, U.S. Cellular supports the larger ecosystem of Samsung and Apple devices, such as the Samsung Galaxy Watch, the Samsung Gear Sport and the Apple Watch Series 5. For tablets, U.S. Cellular offers the full complement of iPads and the Samsung Galaxy Tab series. U.S. Cellular's smartphone offerings play a significant role in attracting customers and driving data service usage and revenues. U.S. Cellular also offers additional services and products that utilize U.S. Cellular's network, including feature phones, mobile hotspots, LTE home internet, LTE wireless routers, LTE wireless cameras, and home phones.

U.S. Cellular purchases wireless devices and accessory products from a number of original equipment manufacturers and distributors, including Samsung, Apple, Google, Motorola, LG, Inseego, Tessco, Voicecomm and Superior. U.S. Cellular manages relationships with its suppliers to ensure best possible pricing and identifies opportunities for promotional support. U.S. Cellular does not own significant product warehousing and distribution infrastructure; rather, it contracts with third party providers for the majority of its product warehousing, distribution and direct customer fulfillment activities. U.S. Cellular also contracts with third party providers for services related to its device service programs.

U.S. Cellular continuously monitors the financial condition of its wireless device and accessory suppliers. Since U.S. Cellular has a diversified portfolio of products from more than one supplier, U.S. Cellular does not expect the financial condition of any single supplier to affect its ability to offer a competitive portfolio of wireless devices and accessories for sale to customers.

Marketing, Customer Service, and Sales and Distribution Channels

Marketing and Advertising. U.S. Cellular's marketing plan is focused on acquiring, retaining and enhancing customer relationships by maintaining a high-quality wireless network, providing outstanding customer service, and offering a comprehensive portfolio of services and products built around customer needs at fair prices with a local focus. U.S. Cellular believes that creating positive relationships with its customers enhances their wireless experience and builds customer loyalty. In 2019, U.S. Cellular completed a brand refresh centered around its brand promise of doing what is right for customers, which is expressed through a new marketing campaign, 'Bringing Fairness to Wireless'. U.S. Cellular also introduced new Basic, Everyday and Even Better Unlimited plans. These plans allow customers to choose and customize plans to match their needs and lifestyles.

To attract new customers and retain existing customers, and increase their usage of U.S. Cellular's services, U.S. Cellular's advertising is directed at increasing the public awareness of the U.S. Cellular brand, knowledge of the outstanding network that works in places where other carriers do not have coverage, and understanding of the wireless services it offers. U.S. Cellular supplements its advertising with a focused public relations program that seeks to improve overall brand sentiment and awareness, encourages engagement, supports sales of services and products, and builds preference and loyalty for the U.S. Cellular brand. The approach combines national and local media relations in mainstream and social media channels with market-specific activities, events, and sponsorships.

U.S Cellular focuses its philanthropic and volunteer activities on K-12 STEM (Science, Technology, Engineering and Math) for youth in the communities U.S. Cellular serves. U.S Cellular also collaborates with organizations such as the Boys & Girls Clubs of America and JASON Learning. Since 2015, U.S. Cellular's The Future of Good program has demonstrated the commitment to fairness by highlighting and supporting young humanitarians that have taken extraordinary actions to make their communities a better place.

Customer Service. U.S. Cellular manages customer retention by focusing on outstanding customer service through the development of processes that are customer-friendly, extensive training of frontline sales and support associates and the implementation of retention programs.

U.S. Cellular operates four regional customer care centers in its operating markets with personnel who are responsible for customer service activities, and a national financial services center with personnel who perform credit and other customer payment activities. U.S. Cellular also contracts with third parties that provide additional customer care and financial services support.

Sales and Distribution Channels. U.S. Cellular supports a multi-faceted distribution program, including retail sales, direct sales, third-party national retailers, and independent agents, plus a website and telesales.

Company retail store locations are designed to market wireless services and products to the consumer and small business segments in a setting familiar to these types of customers. As of December 31, 2019, retail sales associates work in 262 U.S. Cellular-operated retail stores and kiosks. Direct sales representatives sell traditional wireless services as well as Internet of Things (IoT) and M2M products and solutions to medium- and large-sized businesses and government entities. Additionally, the U.S. Cellular website enables customers to purchase wireless services and devices online.

U.S. Cellular maintains an ongoing training program to improve the effectiveness of retail sales associates and direct sales representatives by focusing their efforts on obtaining customers by facilitating the sale of appropriate packages for the customer's expected usage and value-added services that meet the individual needs of the customer.

U.S. Cellular has relationships with exclusive and non-exclusive agents (collectively "agents"), which are independent businesses that obtain customers for U.S. Cellular on a commission basis. At December 31, 2019, U.S. Cellular had contracts with these businesses aggregating 448 locations. U.S. Cellular provides support and training to its agents to increase customer satisfaction and to ensure a consistent customer experience. U.S. Cellular's agents are generally in the business of selling wireless devices, wireless service plans and other related products. No single agent accounted for 10% or more of U.S. Cellular's operating revenues during the past three years.

U.S. Cellular services and products also are offered through third-party national and on-line retailers. Wal-Mart, Sam's Club, Cashland, Family Dollar and Dollar General offer U.S. Cellular services and products at select retail locations in U.S. Cellular's service areas. U.S. Cellular continues to explore new relationships with additional third-party retailers as part of its strategy to expand distribution.

Seasonality. Seasonality in operating expenses may cause operating income to vary from quarter to quarter. U.S. Cellular's operating expenses tend to be higher in the fourth quarter due to increased marketing and promotional activities during the holiday season.

Competition

The wireless telecommunication industry is highly competitive. U.S. Cellular competes directly with several wireless service providers in each of its markets. In general, there are between two and five competitors in each wireless market in which U.S. Cellular provides service, excluding resellers and mobile virtual network operators (MVNOs). In its footprint, U.S. Cellular competes to varying degrees against each of the national wireless companies: Verizon Wireless, AT&T Mobility, Sprint, and T-Mobile USA, in addition to a few smaller regional carriers and cable providers such as Comcast and Charter in specific areas of its footprint. All of the national competitors have substantially greater financial and other resources than U.S. Cellular. In addition, U.S. Cellular competes with other companies that use alternative communication technology and services to provide similar services and products.

Since each of these wireless competitors operates on systems using spectrum licensed by the FCC and has comparable technology and facilities, competition among wireless service providers for customers is principally on the basis of types of services and products, price, size of area covered, network quality, network speed and responsiveness of customer service. Types of services and products include non–wireless related services such as content offerings that are bundled with wireless services. U.S. Cellular employs a customer satisfaction strategy that includes maintaining an outstanding wireless network throughout its markets. U.S. Cellular owns and operates low-band spectrum (less than 1 GHz) that covers the majority of its footprint and enables more efficient coverage in rural areas (compared to spectrum above 1 GHz), which strengthens its network quality positioning. To the extent existing competitors or new entrants hold or acquire such spectrum in U.S. Cellular markets, U.S. Cellular could face increased competition over time. In addition, fifth generation (5G) technology will likely introduce increased competition from industry participants on bases such as network speed and new product offerings.

The use of national advertising and promotional programs by the top four wireless service providers and certain cable providers is a source of additional competitive and pricing pressures in all U.S. Cellular markets, even if those operators do not provide direct service in a particular market. Over the past year, competition among top carriers has continued to be robust, with the top four carriers and certain cable providers offering rich promotions related to both service plans and devices. In addition, in the current wireless environment, U.S. Cellular's ability to compete depends on its ability to continue to offer national voice and data plans. U.S. Cellular provides wireless services comparable to the national competitors, but the national wireless companies operate in a wider geographic area and are able to provide such services over a wider area on their own networks than U.S. Cellular can offer on its network. Although U.S. Cellular offers similar coverage area as these competitors, U.S. Cellular incurs roaming charges for data sessions and calls made in portions of the coverage area which are not part of its network, thereby increasing its cost of operations. U.S. Cellular depends on roaming agreements with other wireless carriers to provide voice and data roaming capabilities in areas not covered by U.S. Cellular's network. Similarly, U.S. Cellular provides roaming services on its network to other wireless carriers' customers who travel within U.S. Cellular's coverage areas and receives revenue from other carriers for the provision of these services.

Convergence of connectivity is taking place on many levels, including wireless devices that can act as wireless or wireline replacement devices and the incorporation of wireless "hot spot" technology in wireless devices making internet access seamless regardless of location. Although less directly a substitute for other wireless services, wireless data services such as Wi-Fi may be adequate for those who do not need mobile wide-area roaming or full two-way voice services. If the trend toward convergence continues, U.S. Cellular is at a competitive disadvantage to larger competitors, including the national wireless carriers, traditional cable companies, MVNOs and other potential large new entrants with much greater financial and other resources in adapting to such convergence. Cable companies compete in the wireless market; most notably, Comcast and Charter currently offer wireless services.

U.S. Cellular's approach in 2020 and in future years will be to focus on the unique needs and attitudes of its customers towards wireless service. U.S. Cellular will deliver high-quality services and products at competitive prices and intends to continue to differentiate itself by seeking to provide an overall outstanding customer experience, founded on a high-quality network. U.S. Cellular's ability to compete successfully in the future will depend upon its ability to anticipate and respond to changes related to new service offerings, consumer preferences, competitors' pricing strategies and new product offerings, technology, demographic trends, economic conditions and its access to adequate spectrum resources.

Network Technology, Roaming, and System Design

Technology. Wireless telecommunication systems transmit voice and data signals over networks of radio towers using radio spectrum licensed by the FCC. Access to local, regional, national and worldwide telecommunications networks is provided through system interconnections. A high-quality network, supported by continued investments in that network, will remain an important factor for U.S. Cellular to remain competitive.

VoLTE technology allows customers to utilize a 4G LTE network for both voice and data services, and offers enhanced services such as high definition voice and simultaneous voice and data sessions. VoLTE technology is now available to nearly 70% of U.S Cellular's subscribers, and deployments in additional operating markets are expected in 2020 and 2021.

5G technology is expected to help address customers' growing demand for data services as well as create opportunities for new services requiring high speed, reliability and low latency. U.S. Cellular is working with leading companies in the wireless infrastructure and handset ecosystem to provide rich 5G experiences for customers, initially focused on mobility services and using its low band spectrum. At the same time, U.S. Cellular has begun acquiring high band spectrum to further enable the delivery of additional 5G services in the future. U.S. Cellular has begun to deploy 5G technology in its network and expects to launch commercial 5G services in selected markets in 2020. In addition, in the markets in which U.S. Cellular is deploying 5G technology, customers using U.S. Cellular's 4G LTE network will experience faster network speeds due to the network modernization efforts.

Roaming. Inter-carrier roaming agreements are negotiated between wireless operators to enable customers who are in a wireless service area other than the customer's home service area to use wireless services in that service area. U.S. Cellular has entered into 4G LTE and VoLTE roaming agreements with national wireless companies and, as a result, a majority of customers currently have access to these services on a nationwide basis. In addition, U.S. Cellular offers a variety of international roaming options.

System Design and Construction. U.S. Cellular designs and constructs its systems in a manner it believes will permit it to provide high-quality service to substantially all types of compatible wireless devices. Designs are based on engineering studies which relate to specific markets, in support of the larger network. Network reliability is given careful consideration and extensive backup redundancy is employed in many aspects of U.S. Cellular's network design. Route diversity, redundant equipment, ring topology and extensive use of emergency standby power also are used to enhance network reliability and minimize service disruption from any particular network element failure.

U.S. Cellular has selected high-capacity, carrier-class digital wireless switching systems that are capable of serving multiple markets through a single mobile telephone switching office. Centralized equipment, used for network and data management, is located in high-availability facilities supported by multiple levels of power and network redundancy. U.S. Cellular's systems are designed to incorporate Internet Protocol (IP) packet-based Ethernet technology, which allows for increased data capacity and a more efficient network. Interconnection between the mobile telephone switching office and the cell sites utilizes Ethernet technology for nearly all 4G LTE sites, over fiber or microwave links.

Construction of wireless systems is capital-intensive, requiring substantial investment for land and improvements, buildings, towers, mobile telephone switching offices, cell site equipment, transport equipment, engineering and installation. U.S. Cellular primarily uses its own personnel to engineer each wireless system it owns and operates, and engages contractors to construct the facilities.

As a result of increasing demand for high–speed data and the deployment of 5G technology, U.S. Cellular expects to acquire additional wireless spectrum licenses and to make significant investments in its network to provide sufficient capacity and throughput.

The costs to develop the systems which U.S. Cellular operates (including the costs to acquire wireless spectrum licenses) have historically been financed primarily through proceeds from debt offerings, with cash generated by operations, and proceeds from the sales of wireless interests and other non-strategic assets.

Business Development Strategy

U.S. Cellular operates a regional wireless network. U.S. Cellular's interests in wireless spectrum licenses include both direct interests whereby U.S. Cellular is the licensee and investment interests in entities which are licensees; together, these direct and investment interests involve operating and non-operating wireless spectrum licenses covering 30 states and a total population of approximately 52 million at December 31, 2019.

U.S. Cellular's business development strategy is to obtain interests in or access to wireless spectrum licenses in its current operating markets and in areas that are adjacent to or in close proximity to its other wireless spectrum licenses, thereby building larger geographic operating market areas. U.S. Cellular believes that the acquisition of additional wireless spectrum licenses within its current operating markets will enhance its network capacity and speed to meet its customers' growing demand for data services. From time to time, U.S. Cellular has divested outright or included in exchanges for other wireless interests certain consolidated and investment interests that were considered less essential to its current and expected future operations. As part of its business development strategy, U.S. Cellular may periodically be engaged in negotiations relating to the acquisition, exchange or disposition of companies, strategic properties, investment interests or wireless spectrum.

The FCC conducts auctions through which additional spectrum is made available for the provision of wireless services. Historically, U.S. Cellular has participated in certain FCC auctions both directly and indirectly through its limited partnership interests. During 2018 and 2019, the FCC conducted two auctions of wireless spectrum licenses in the 28 GHz and 24 GHz bands. The 28 GHz auction (Auction 101) offered two 425 MHz wireless spectrum licenses in the 28 GHz band over portions of the United States that do not have incumbent licensees. The 24 GHz auction (Auction 102) offered up to seven 100 MHz wireless spectrum licenses in the 24 GHz band in Partial Economic Areas covering most of the United States. On June 3, 2019, the FCC announced by way of public notice that U.S. Cellular was the provisional winning bidder for 408 wireless spectrum licenses in Auction 101 and 282 wireless spectrum licenses in Auction 102 for an aggregate purchase price of $256 million. The wireless spectrum licenses from Auction 101 were granted by the FCC on October 2, 2019, and the wireless spectrum licenses from Auction 102 were granted by the FCC on December 11, 2019.

On July 11, 2019, the FCC released a Public Notice establishing procedures for an auction offering wireless spectrum licenses in the 37, 39 and 47 GHz bands (Auction 103). Auction 103 is offering 34 100 MHz blocks in the Upper 37 GHz, 39 GHz, and 47 GHz bands in all Partial Economic Areas. On September 9, 2019, U.S. Cellular filed an application to participate in Auction 103 and was announced as a qualified bidder on October 31, 2019. Bidding in this auction commenced on December 10, 2019. The initial phase of this auction closed on January 30, 2020 and the assignment phase commenced on February 18, 2020.

Regulation

U.S. Cellular's operations are subject to federal, state and local regulation. Key regulatory considerations are discussed below.

U.S. Cellular provides various wireless services, including voice and data services, pursuant to wireless spectrum licenses granted by the FCC. The construction, operation and transfer of wireless systems in the United States are regulated to varying degrees by the FCC pursuant to the Communications Act of 1934, as amended (Communications Act). The FCC currently does not require wireless carriers to comply with a number of statutory provisions otherwise applicable to common carriers that provide, originate or terminate interstate or international telecommunications. However, the FCC has enacted regulations governing construction and operation of wireless systems, licensing (including renewal of wireless spectrum licenses) and technical standards for the provision of wireless services under the Communications Act.

Wireless spectrum licenses segmented by geographic areas are granted by the FCC. The completion of acquisitions, involving the transfer of control of all or a portion of a wireless system, requires prior FCC approval. The FCC determines on a case-by-case basis whether an acquisition of wireless spectrum licenses is in the public interest. Wireless spectrum licenses are granted generally for a ten-year term or, in some cases, for a twelve-year or fifteen-year term. The FCC establishes the standards for conducting comparative renewal proceedings between a wireless license holder seeking renewal of its license and challengers filing competing applications. All of U.S. Cellular's wireless spectrum licenses for which it applied for renewal since 1995 have been renewed. U.S. Cellular expects to continue to meet the criteria of the FCC's license renewal process.

As part of its data services, U.S. Cellular provides internet access. Such internet access services may be subject to different regulatory requirements than other wireless services.

Although the Communications Act generally pre-empts state and local governments from regulating the entry of, or the rates charged by, wireless carriers, certain state and local governments regulate other terms and conditions of wireless services, including billing, termination of service arrangements, imposition of early termination fees, advertising, network outages, the use of handsets while driving, zoning, land use, privacy, data security and consumer protection. Further, the Federal Aviation Administration also regulates the siting, lighting and construction of transmitter towers and antennae.

Reference is made to Exhibit 13 to this Form 10-K under "Regulatory Matters" for information regarding any significant recent developments and proposals relating to the foregoing regulatory matters.

Employees

U.S. Cellular had approximately 5,500 full-time and part-time employees as of December 31, 2019. None of U.S. Cellular's employees are represented by labor organizations.

Location and Company Information

U.S. Cellular executive offices are located at 8410 West Bryn Mawr Avenue, Chicago, Illinois 60631. U.S. Cellular's telephone number is 773-399-8900. U.S. Cellular's website address is www.uscellular.com. U.S. Cellular files with, or furnishes to, the Securities and Exchange Commission (SEC) annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, as well as various other information. Investors may access, free of charge, through the Investor Relations portion of the website, U.S. Cellular's annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to such reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practical after such material is filed electronically with the SEC. The public may also view electronic filings of U.S. Cellular by accessing SEC filings at www.sec.gov.

Item 1A. Risk Factors

PRIVATE SECURITIES LITIGATION REFORM ACT OF 1995
SAFE HARBOR CAUTIONARY STATEMENT

This Annual Report on Form 10-K, including exhibits, contains statements that are not based on historical facts and represent forward-looking statements, as this term is defined in the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical facts, that address activities, events or developments that U.S. Cellular intends, expects, projects, believes, estimates, plans or anticipates will or may occur in the future are forward-looking statements. The words “believes,” “anticipates,” “estimates,” “expects,” “plans,” “intends,” “projects” and similar expressions are intended to identify these forward-looking statements, but are not the exclusive means of identifying them. Such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results, events or developments to be significantly different from any future results, events or developments expressed or implied by such forward-looking statements. Such risks, uncertainties and other factors include those set forth below under “Risk Factors” in this Form 10-K. Each of the following risks could have a material adverse effect on U.S. Cellular’s business, financial condition or results of operations. However, such factors are not necessarily all of the important factors that could cause actual results, performance or achievements to differ materially from those expressed in, or implied by, the forward-looking statements contained in this document. Other unknown or unpredictable factors also could have material adverse effects on future results, performance or achievements. U.S. Cellular undertakes no obligation to update publicly any forward-looking statements whether as a result of new information, future events or otherwise. You should carefully consider the following risk factors and other information contained in, or incorporated by reference into, this Form 10-K to understand the material risks relating to U.S. Cellular’s business.

Risk Factors

1) Intense competition in the markets in which U.S. Cellular operates could adversely affect U.S. Cellular’s revenues or increase its costs to compete.

Competition in the wireless industry is intense and is expected to intensify in the future due to multiple factors such as increasing market penetration, introduction of new products, new competitors and changing prices. There is competition in service plan pricing; handsets and other devices; network quality, coverage, speed and technologies, including 5G technology; distribution; new entrants; bundled services and products, such as content; and other categories. In particular, wireless competition includes aggressive service plan and device pricing, including pricing for unlimited plans, which could result in switching activity and churn. In addition, competition based on network speed may increase as customer demand for higher speeds increases. U.S. Cellular’s ability to compete effectively will depend, in part, on its ability to anticipate and respond to various competitive factors affecting the telecommunications industry. In addition, unlimited plans and other data pricing constructs across the industry may limit U.S. Cellular’s ability to monetize future growth in data usage. U.S. Cellular anticipates that these competitive factors may cause the prices for services and products to decline and the costs to compete to increase.

U.S. Cellular’s primary competitors are national or global telecommunications companies that are larger than U.S. Cellular, possess greater financial and other resources, possess more extensive coverage areas and more spectrum within their coverage areas, and market other services with their communications services that U.S. Cellular does not offer. U.S. Cellular's competitors are actively marketing their deployment of 5G and, as a result, are raising consumer awareness of the technology. If U.S. Cellular cannot keep pace with its competitors in deploying 5G or other comparable offerings, or if U.S. Cellular's deployment of 5G technology does not result in significant incremental revenues, U.S. Cellular's financial condition, results of operations or ability to do business could be adversely affected. Further, other companies that currently are less competitive may also add more efficient low-band spectrum to become more competitive in U.S. Cellular’s primary markets. In particular, to the extent that existing competitors or new entrants acquire low-band (e.g., 600 MHz) spectrum or deploy newer wireless technologies in U.S. Cellular markets, U.S. Cellular could face increased competition over time. In addition, U.S. Cellular may face competition from technologies that may be introduced in the future. New technologies, services and products that are more commercially effective than the technologies, services and products offered by U.S. Cellular may be developed. Further, new technologies may be proprietary such that U.S. Cellular is not able to adopt such technologies. There can be no assurance that U.S. Cellular will be able to compete successfully in this environment.

Sources of competition to U.S. Cellular’s business typically include two to five competing wireless telecommunications service providers in each market, wireline telecommunications service providers, cable companies, resellers (including MVNOs), and providers of other alternate telecommunications services. Many of U.S. Cellular’s wireless competitors and other competitors have substantially greater financial, technical, marketing, sales, purchasing and distribution resources than U.S. Cellular.

If U.S. Cellular does not adapt to compete effectively in such a highly competitive environment, such competitive factors could result in product, service, pricing or cost disadvantages and could have an adverse effect on U.S. Cellular’s business, financial condition or results of operations.

2) A failure by U.S. Cellular to successfully execute its business strategy (including planned acquisitions, spectrum acquisitions, divestitures and exchanges) or allocate resources or capital effectively could have an adverse effect on U.S. Cellular's business, financial condition or results of operations.

U.S. Cellular is a regional wireless carrier, but competes primarily against much larger national wireless carriers with much greater resources. Its business strategy in attempting to attract and retain wireless customers through a value proposition comprised of a high-quality network, outstanding customer service, and competitive devices, plans and pricing, all provided with a local focus has not resulted in, and in the future may not result in, performance that achieves returns in line with or above its cost of capital. U.S. Cellular's current forecast indicates that U.S. Cellular will not achieve a return on capital that exceeds its cost of capital in the foreseeable future. U.S. Cellular also might be unable to adopt technologies, services and products as fast as its larger competitors. As a result, consumers who are eager to adopt new technologies, services and products more quickly may select U.S. Cellular's competitors rather than U.S. Cellular as their service provider. To the extent that U.S. Cellular does not attract or retain these types of customers, U.S. Cellular could be at a competitive disadvantage and have a customer base that generates lower profit margins relative to its competition.

The successful execution of strategy and optimal capital allocation decisions depend on various factors, many of which are not in U.S. Cellular's control. U.S. Cellular's ability to achieve projected financial results by implementing and executing its business strategy and optimally allocating its assets and capital could be affected by such factors. Such factors include but are not limited to pricing practices by competitors, relative scale, purchasing power, roaming and other strategic agreements, wireless device availability, timing of introduction of wireless devices, access to spectrum, emerging technologies, changes in tax or import tariff regulations and other factors. In addition, there is no assurance that U.S. Cellular's strategy will be successful. Even if U.S. Cellular executes its business strategy as intended, such strategy may not be successful in the long term at achieving growth in customers, revenues, net income, or generating a return on capital greater than U.S. Cellular's cost of capital. A failure by U.S. Cellular to execute its business strategy successfully or to allocate resources or capital optimally could have an adverse effect on U.S. Cellular's wireless business, financial condition or results of operations.

3) Uncertainty in U.S. Cellular's future cash flow and liquidity or the inability to access capital, deterioration in the capital markets, other changes in U.S. Cellular's performance or market conditions, changes in U.S. Cellular's credit ratings or other factors could limit or restrict the availability of financing on terms and prices acceptable to U.S. Cellular, which could require U.S. Cellular to reduce its construction, development or acquisition programs, reduce the amount of wireless spectrum licenses acquired, and/or reduce or cease share repurchases.

U.S. Cellular operates a capital-intensive business. Historically, U.S. Cellular has used internally-generated funds and also has obtained substantial funds from external sources for general corporate purposes. In the past, U.S. Cellular's existing cash and investment balances, funds available under its revolving credit and receivables securitization agreements, funds from other financing sources, including a term loan and other long-term debt, and cash flows from operating and certain investing and financing activities, including sales of assets or businesses, provided sufficient liquidity and financial flexibility for U.S. Cellular to meet its normal day-to-day operating needs and debt service requirements, to finance the build-out and enhancement of markets and to fund acquisitions. There is no assurance that this will be the case in the future. It may be necessary from time to time to increase the amount of permissible borrowings under the existing revolving credit and receivables securitization agreements, to put in place new credit agreements, or to obtain other forms of financing in order to fund potential expenditures. U.S. Cellular's liquidity would be adversely affected if, among other things, U.S. Cellular is unable to obtain short or long-term financing on acceptable terms, U.S. Cellular makes significant spectrum license purchases, U.S. Cellular makes significant capital investments, U.S. Cellular makes significant business acquisitions, the Los Angeles SMSA Limited Partnership (LA Partnership) discontinues or significantly reduces distributions compared to historical levels, or Federal USF and/or other regulatory support payments decline.

U.S. Cellular's credit rating currently is sub-investment grade. U.S. Cellular has incurred negative free cash flow (defined as Cash flows from operating activities less Cash paid for additions to property, plant and equipment) at times in the past and this could occur in the future. U.S. Cellular may require substantial additional capital for, among other uses, funding day-to-day operating needs including working capital, acquisitions of providers of wireless telecommunications services, spectrum license or system acquisitions, capital expenditures, debt service requirements, the repurchase of shares, or making additional investments. There can be no assurance that sufficient funds will continue to be available to U.S. Cellular or its subsidiaries on terms or at prices acceptable to U.S. Cellular. Insufficient cash flows from operating activities, changes in U.S. Cellular's credit ratings, defaults of the terms of debt or credit agreements, uncertainty of access to capital, deterioration in the capital markets, reduced regulatory capital at banks which in turn limits their ability to borrow and lend, other changes in the performance of U.S. Cellular or in market conditions or other factors could limit or restrict the availability of financing on terms and prices acceptable to U.S. Cellular, which could require U.S. Cellular to reduce its acquisition, capital expenditure and business development programs, reduce the acquisition of wireless spectrum licenses, and/or reduce or cease share repurchases. U.S. Cellular cannot provide assurance that circumstances that could have a material adverse effect on its liquidity or capital resources will not occur. Any of the foregoing would have an adverse impact on U.S. Cellular's business, financial condition or results of operations.

4) U.S. Cellular has a significant amount of indebtedness which could adversely affect its financial performance and in turn adversely affect its ability to make payments on its indebtedness, comply with terms of debt covenants and incur additional debt.

U.S. Cellular has a significant amount of indebtedness and may need to incur additional indebtedness. U.S. Cellular’s level of indebtedness could have important consequences. For example, it (i) may limit U.S. Cellular’s ability to obtain additional financing for working capital, capital expenditures or general corporate purposes, particularly if the ratings assigned to its debt securities by rating organizations are revised downward; (ii) will require U.S. Cellular to dedicate a substantial portion of its cash flow from operations to the payment of interest and principal on its debt, thereby reducing the funds available to U.S. Cellular for other purposes including expansion through acquisitions, capital expenditures, marketing spending and expansion of its business; and (iii) may limit U.S. Cellular’s flexibility to adjust to changing business and market conditions and make U.S. Cellular more vulnerable to a downturn in general economic conditions as compared to U.S. Cellular’s competitors. U.S. Cellular’s ability to make scheduled payments on its indebtedness or to refinance it will depend on its financial and operating performance which, in turn, is subject to prevailing economic and competitive conditions and other factors beyond its control. In addition, U.S. Cellular’s leverage may put it at a competitive disadvantage to some of its competitors that are not as leveraged.

U.S. Cellular’s revolving credit agreement, term loan agreement and receivables securitization agreement require U.S. Cellular to comply with certain affirmative and negative covenants, including certain financial covenants. Depending on the actual financial performance of U.S. Cellular, there is a risk that U.S. Cellular could fail to satisfy the required financial covenants. If U.S. Cellular breaches a financial or other covenant of any of these agreements, it would result in a default under that agreement, and could involve a cross-default under other debt instruments. This could in turn cause the affected lenders to accelerate the repayment of principal and accrued interest on any outstanding debt under such agreements and, if they choose, terminate the agreement. If appropriate, U.S. Cellular may request the applicable lenders for an amendment of financial covenants in the U.S. Cellular agreements, in order to provide additional financial flexibility to U.S. Cellular, and may also seek other changes to such agreements. There is no assurance that the lenders will agree to any amendments. If the lenders agree to amendments, this may result in additional payments or higher interest rates payable to the lenders and/or additional restrictions. Restrictions in such debt instruments may limit U.S. Cellular’s operating and financial flexibility.

As a result, U.S. Cellular’s level of indebtedness, restrictions contained in debt instruments and/or possible breaches of covenants, defaults, and acceleration of indebtedness could have an adverse effect on U.S. Cellular’s business, financial condition, revenues, results of operations and cash flows.

5) Changes in roaming practices or other factors could cause U.S. Cellular's roaming revenues to decline from current levels, roaming expenses to increase from current levels and/or impact U.S. Cellular's ability to service its customers in geographic areas where U.S. Cellular does not have its own network, which could have an adverse effect on U.S. Cellular's business, financial condition or results of operations.

U.S. Cellular’s service revenues include roaming revenues related to the use of U.S. Cellular’s network by other carriers’ customers who travel within U.S. Cellular’s coverage areas. Changes in FCC rules or actions, industry practices or the network footprints of carriers due to mergers, acquisitions or network expansions could have an adverse effect on U.S. Cellular’s roaming revenues. For example, consolidation among other carriers which have network footprints that currently overlap U.S. Cellular’s network could decrease the amount of roaming revenues for U.S. Cellular.

Similarly, U.S. Cellular's customers can access another carrier’s network automatically only if the other carrier allows U.S. Cellular's customers to roam on its network. U.S. Cellular relies on roaming agreements with other carriers to provide roaming capability to its customers in areas of the U.S. and internationally outside of its service areas and to improve coverage within selected areas of U.S. Cellular's network footprint. Such agreements cover traditional voice services as well as data services. Although U.S. Cellular currently has long-term roaming agreements with certain other carriers, these agreements generally are subject to renewal and termination if certain events occur. FCC rules and orders impose certain requirements on wireless carriers to offer certain roaming arrangements to other carriers. However, carriers frequently disagree on what is required. Although U.S. Cellular has entered into roaming agreements with national carriers, there is no assurance that U.S. Cellular will be able to maintain these agreements and/or enter into new agreements with other carriers to provide roaming services or that it will be able to do so on reasonable or cost-effective terms.

Some competitors may be able to obtain lower roaming rates than U.S. Cellular is able to obtain because they have larger data usage or call volumes or may be able to reduce roaming charges by providing service principally over their own networks. In addition, the quality of service that a wireless carrier delivers to a U.S. Cellular customer while roaming may be inferior to the quality of service U.S. Cellular provides, the price charged by U.S. Cellular for an international roaming call may not be competitive with prices other wireless carriers charge for such call, U.S. Cellular’s customers may not be able to use some of the advanced features that U.S. Cellular’s customers enjoy when making calls on U.S. Cellular’s network (e.g., voicemail notification or data applications), and U.S. Cellular customers’ service experience may be negatively impacted, particularly when accessing data services, upon reaching a defined allotment of high-speed usage. U.S. Cellular’s rate of adoption of new technologies, such as those enabling high-speed data and voice services, could affect its ability to enter into or maintain roaming agreements with other carriers. In addition, U.S. Cellular’s wireless technology may not be compatible with technologies used by other carriers, which may limit the ability of U.S. Cellular to enter into voice or data roaming agreements with such other carriers. Carriers whose customers roam on U.S. Cellular’s network could switch their business to new operators, limit their high-speed usage or, over time, move traffic to their own networks. Changes in roaming usage patterns, rates for roaming usage, or roaming relationships with other carriers could have an adverse effect on U.S. Cellular’s roaming revenues and/or expenses.

To the extent that other carriers expand their networks in U.S. Cellular's service areas, the roaming arrangements between U.S. Cellular and these other carriers could become less strategic for them. That is, these other carriers will have fewer or less extensive geographic areas where roaming services are required by their customers and, as a result, the roaming arrangements could become less critical to serving their customer base. This presents a risk to U.S. Cellular in that, to the extent U.S. Cellular is not able to enter into economically viable roaming arrangements with these other carriers, this could impact U.S. Cellular's ability to service its customers in geographic areas where U.S. Cellular does not have its own network.

If U.S. Cellular's roaming revenues decline, or its roaming expenses increase, or if U.S. Cellular is unable to obtain or maintain roaming agreements with other carriers that contain pricing and other terms that are competitive and acceptable to U.S. Cellular and that satisfy U.S. Cellular's quality and interoperability requirements, its business, financial condition or results of operations could be adversely affected.

6) A failure by U.S. Cellular to obtain access to adequate radio spectrum to meet current or anticipated future needs and/or to accurately predict future needs for radio spectrum could have an adverse effect on U.S. Cellular's business, financial condition or results of operations.

U.S. Cellular's business depends on the ability to use portions of the radio spectrum licensed by the FCC. U.S. Cellular could fail to obtain access to sufficient spectrum capacity, including spectrum needed to support 5G technology, in new or existing markets, whether through FCC auctions or other transactions, in order to meet the anticipated spectrum requirements associated with increased demand for existing services, especially increases in customer demand for data services, and to enable deployment of next-generation services. U.S. Cellular believes that this increased demand for data services reflects a trend that will continue for the foreseeable future. Data usage, including usage under unlimited plans, could exceed current forecasts resulting in a need for increased investment in spectrum or network. U.S. Cellular could fail to accurately forecast its future spectrum requirements considering changes in plan offerings, customer usage patterns, technology requirements and the expanded demands of new services. Such a failure could have an adverse impact on the quality of U.S. Cellular's services or U.S. Cellular's ability to roll out such future services in some markets, or could require that U.S. Cellular curtail existing services in order to make spectrum available for next-generation services. Spectrum constrained providers could be effectively capped in increasing market share. As spectrum constrained providers gain customers, they use up their network capacity. Since they lack spectrum, they can respond to demand only by adding cell sites, which is capital intensive, adds fixed operating costs, is limited by zoning considerations, and ultimately may not be cost effective.

U.S. Cellular may acquire access to spectrum through a number of alternatives, including acquisitions, exchanges and participation in spectrum auctions. U.S. Cellular may participate in spectrum auctions conducted by the FCC in the future. As required by law, the FCC has conducted auctions for wireless spectrum licenses to use some parts of the radio spectrum. The decision to conduct auctions, and the determination of what spectrum frequencies will be made available for auction and the determination of geographic size of wireless spectrum licenses, are made by the FCC pursuant to laws that it administers. The FCC may not be able to allocate spectrum sufficient to meet the demands of all those wishing to obtain wireless spectrum licenses for new market entry or to expand their spectrum holdings to meet the expanding demand for data services or to address other spectrum constraints. Due to factors such as geographic size of wireless spectrum licenses and auction bidders that may raise prices beyond acceptable levels, U.S. Cellular may not be successful in FCC auctions in obtaining access to the spectrum that it believes is necessary to implement its business and technology strategies.

In addition, newly auctioned spectrum may not be compatible with existing spectrum, and vendors may not create suitable products to use such spectrum. Further, access to wireless spectrum licenses won in FCC auctions may not be available on a timely basis. Such access is dependent upon the FCC actually granting wireless spectrum licenses won, which can be delayed for various reasons. Furthermore, newly licensed spectrum may not be available for immediate use since the radio operations of incumbent users, including in some cases government agencies, may need to be relocated to other portions of the radio spectrum, and/or the newly licensed spectrum may be subject to sharing and coordination obligations. U.S. Cellular also may seek to acquire radio spectrum through purchases and exchanges with other spectrum licensees. However, U.S. Cellular may not be able to acquire sufficient spectrum through these types of transactions, and U.S. Cellular may not be able to complete any of these transactions on favorable terms.

7) To the extent conducted by the FCC, U.S. Cellular may participate in FCC auctions for additional spectrum or for funding in certain Universal Service programs in the future directly or indirectly and, during certain periods, will be subject to the FCC's anti-collusion rules, which could have an adverse effect on U.S. Cellular.

From time to time, the FCC has conducted auctions through which additional spectrum is made available for the provision of wireless services, or through which universal service support funding is dispersed. U.S. Cellular has participated in such auctions in the past and may participate in other auctions conducted by the FCC in the future. FCC anti-collusion rules place certain restrictions on business communications and disclosures by participants in an FCC auction. These anti-collusion rules may restrict the normal conduct of U.S. Cellular's business, U.S. Cellular's acquisition, divestiture, exchange and other corporate development activity and/or disclosures by U.S. Cellular relating to an FCC auction. The restrictions could have an adverse effect on U.S. Cellular's business, financial condition or results of operations.

8) Failure by U.S. Cellular to timely or fully comply with any existing applicable legislative and/or regulatory requirements or changes thereto could adversely affect U.S. Cellular's business, financial condition or results of operations.

U.S. Cellular's operations are subject to varying degrees of regulation by the FCC, state public utility commissions and other federal, state and local regulatory agencies and legislative bodies. Changes in the administration of the various regulatory agencies and legislative bodies could result in different policies with respect to many federal laws and regulations, including but not limited to changes to fiscal and tax policies, trade policies and tariffs on import goods. New or amended regulatory requirements could increase U.S. Cellular's costs and divert resources from other initiatives. Adverse decisions, increased regulation, or changes to existing regulation by regulatory bodies could negatively impact U.S. Cellular's operations by, among other things, permitting greater competition or limiting U.S. Cellular's ability to engage in certain sales or marketing activities, or retention and recruitment of skilled resources. New regulatory mandates or enforcement may require unexpected or increased capital expenditures, lost revenues, higher operating expenses or other changes. Court decisions and rulemakings could have a substantial impact on U.S. Cellular's operations, including rulemakings on broadband access to the internet, intercarrier access compensation and state and federal support funding. Litigation and different objectives among federal and state regulators could create uncertainty and delay U.S. Cellular's ability to respond to new regulations. Further, wireless spectrum licenses are subject to renewal by the FCC and could be revoked in the event of a violation of applicable laws or regulatory requirements. Also, although FCC rules relating to net neutrality have been repealed, some state legislators and regulators are seeking to or have already enacted state laws to reinstate net neutrality regulations and other rules. Interpretation and application of these rules, including conflicts between federal and state laws, may result in additional costs for compliance and may limit opportunities to derive profits from certain business practices or resources. For additional information related to U.S. Cellular's regulatory environment, see Risk Factor Number 15 below and "Regulatory Matters" in Exhibit 13 to this Form 10-K.

U.S. Cellular attempts to timely and fully comply with all regulatory requirements. However, U.S. Cellular is unable to predict the future actions of the various legislative and regulatory bodies that govern U.S. Cellular, but such actions could have adverse effects on U.S. Cellular's business. Any failure by U.S. Cellular to timely or fully comply with any regulatory requirements could adversely affect U.S. Cellular's financial condition, results of operations or ability to do business.

9) An inability to attract people of outstanding talent throughout all levels of the organization, to develop their potential through education and assignments, and to retain them by keeping them engaged, challenged and properly rewarded could have an adverse effect on U.S. Cellular's business, financial condition or results of operations.

U.S. Cellular's business is highly technical and competition for skilled talent in the wireless industry is intense. Due to competition and/or limited supply for qualified management, technical, sales and other personnel, there can be no assurance that U.S. Cellular will be able to continue to attract and/or retain people of outstanding potential for the development of its business. The loss of the services of existing key personnel due to competition and/or retirements as well as the failure to recruit additional qualified personnel in a timely manner could have an adverse effect on U.S. Cellular's business, financial condition or results of operations.

The market for highly skilled leaders in the wireless industry also is extremely competitive. The future success of U.S. Cellular and its business depends in substantial part on U.S. Cellular's ability to recruit, hire, motivate, develop, and retain talented and highly skilled leaders for all areas of its organization. The loss of any of U.S. Cellular's key leaders could have an adverse effect on its business, financial condition or results of operations. Effective succession planning is also important to U.S. Cellular's long-term success. Failure to ensure effective transfer of knowledge and smooth transition involving key employees could also adversely affect U.S. Cellular's business, financial condition and results of operations.

10) U.S. Cellular's assets and revenue are concentrated in the U.S. wireless telecommunications industry. Consequently, its operating results may fluctuate based on factors related primarily to conditions in this industry.

The U.S. wireless telecommunications industry is facing significant change and an uncertain operating environment. U.S. Cellular's focus on the U.S. wireless telecommunications industry, together with its positioning relative to larger competitors with greater resources within the industry, may represent increased risk for investors due to the lack of diversification. This could have an adverse effect on U.S. Cellular's ability to attain and sustain long-term, profitable revenue growth and could have an adverse effect on its business, financial condition or results of operations.

11) U.S. Cellular's smaller scale relative to larger competitors that may have greater financial and other resources than U.S. Cellular could cause U.S. Cellular to be unable to compete successfully, which could adversely affect its business, financial condition or results of operations.

There has been a trend in the telecommunications and related industries towards consolidation of service providers through acquisitions, reorganizations and joint ventures. This trend could continue, leading to larger competitors over time. U.S. Cellular has smaller scale efficiencies compared to larger competitors. U.S. Cellular may be unable to compete successfully with larger companies that have substantially greater financial, technical, marketing, sales, purchasing and distribution resources or that offer more services than U.S. Cellular, which could adversely affect U.S. Cellular's revenues and costs of doing business. Specifically, U.S. Cellular's smaller scale relative to most of its competitors could have the following impacts, among others:

- Low profit margins and returns on investment that are below U.S. Cellular's cost of capital;
- Increased operating costs due to lack of leverage with vendors;
- Inability to successfully deploy 5G or other wireless technologies, or to realize significant incremental revenues from their deployment;
- Limited opportunities for strategic partnerships as potential partners are focused on wireless companies with greater scale and scope;
- Limited access to content, as well as limited ability to obtain acceptably priced content;
- Limited ability to influence industry standards;
- Reduced ability to invest in research and development of new services and products;
- Vendors may deem U.S. Cellular non-strategic and not develop or sell services and products to U.S. Cellular, particularly where technical requirements differ from those of larger companies;
- Limited access to intellectual property; and
- Other limited opportunities such as for software development or third party distribution.

U.S. Cellular's business increasingly depends on access to content for data and access to new wireless devices being developed by vendors. U.S. Cellular's ability to obtain such access depends in part on other parties. If U.S. Cellular is unable to obtain timely access to new content or wireless devices being developed by vendors, its business, financial condition or results of operations could be adversely affected.

As a result of the foregoing, U.S. Cellular's smaller scale relative to larger competitors could adversely affect U.S. Cellular's business, financial condition or results of operations.

12) Changes in various business factors, including changes in demand, consumer preferences and perceptions, price competition, churn from customer switching activity and other factors, could have an adverse effect on U.S. Cellular's business, financial condition or results of operations.

Changes in any of several factors could have an adverse effect on U.S. Cellular's business, financial condition or results of operations. These factors include, but are not limited to:

- Demand for or usage of services, particularly data services;
- Consumer preferences, including type of wireless devices;
- Consumer perceptions of network quality and performance;
- Consumer expectations for self-service options through digital means;
- The pricing of services, including an increase in price-based competition;
- The overall size and growth rate of U.S. Cellular's customer base;
- Penetration rates;
- Churn rates;
- Selling expenses;
- Net customer acquisition and retention costs;
- Customers' ability to pay for wireless service and the potential impact on bad debts expense;
- Roaming agreements and rates;
- Third-party vendor support;
- Capacity constraints;
- The mix of services and products offered by U.S. Cellular and purchased by customers; and
- The costs of providing services and products.

13) Advances or changes in technology could render certain technologies used by U.S. Cellular obsolete, could put U.S. Cellular at a competitive disadvantage, could reduce U.S. Cellular's revenues or could increase its costs of doing business.

The telecommunications industry is experiencing significant changes in technologies and services expected by customers, as evidenced by evolving industry standards, ongoing improvements in the capacity and quality of digital technology, shorter development cycles for new services and products, and enhancements and changes in end-user requirements and preferences. Widespread deployment of new technologies, including 5G and VoLTE technology, could cause the technology used on U.S. Cellular's wireless networks and devices, including CDMA technology, to become less competitive or obsolete. Further, fixed-mobile convergence services that combine wireline broadband services with mobile services represent a competitive threat. If the trend toward convergence continues, U.S. Cellular is at a competitive disadvantage to larger competitors, including the national wireless carriers and other potential large new entrants with much greater financial and other resources in adapting to such convergence. Future technological changes or advancements may enable other wireless technologies to equal or exceed U.S. Cellular's current levels of service and render its system infrastructure obsolete. U.S. Cellular may not be able to respond to such changes and implement new technology on a timely or cost-effective basis, which could reduce its revenues or increase its costs of doing business. If U.S. Cellular cannot keep pace with these technological changes or other changes in the telecommunications industry over time, its financial condition, results of operations or ability to do business could be adversely affected.

14) Complexities associated with deploying new technologies present substantial risk and U.S. Cellular investments in unproven technologies may not produce the benefits that U.S. Cellular expects.

U.S. Cellular has completed the transition to 4G LTE and has implemented 4G LTE as well as VoLTE roaming agreements with national carriers. VoLTE technology is now available to nearly 70% of U.S. Cellular's subscribers, and deployments in additional operating markets are expected in 2020 and 2021. In addition, U.S. Cellular has begun to deploy 5G technology in its network and expects to launch commercial 5G services in selected markets in 2020. The deployment of 5G technology will require substantial investments in U.S. Cellular's wireless networks to remain competitive in the industry. Transition to 5G or other new technologies involves significant time, cost and risk, and anticipated products and revenues may not be realized. Furthermore, the wireless business experiences rapid technology changes and new services and products. If U.S. Cellular fails to effectively deploy new wireless technologies, services or products on a timely basis, this could have an adverse impact on U.S. Cellular's business, financial condition and results of operations.

Furthermore, it is not certain that U.S. Cellular's investments in various new, unproven technologies and the related service and product offerings will be effective. The markets for some of these services, products and solutions may still be emerging and the overall potential for these markets, including revenues to be realized, may be uncertain. If customer demand for these new services, products and solutions does not develop as expected, U.S. Cellular's business, financial condition or results of operations could be adversely affected.

15) U.S. Cellular receives regulatory support and is subject to numerous surcharges and fees from federal, state and local governments, and the applicability and the amount of the support and fees are subject to great uncertainty, which could have an adverse effect on U.S. Cellular's business, financial condition or results of operations.

Telecommunications companies may be designated by states, or in some cases by the FCC, as an Eligible Telecommunications Carrier (ETC) to receive universal service support payments if they provide specified services in "high cost" areas. U.S. Cellular has been designated as an ETC in certain states and received $92 million in high cost support for service to high cost areas in 2019.

In 2011, the FCC released an order (USF Order) to: reform its universal service and intercarrier compensation mechanisms; establish a new, broadband-focused support mechanism; and propose further rules to advance reform. For a discussion of the USF Order and risks to such regulatory support, see "Regulatory Matters - FCC Mobility Fund/5G Fund" in Exhibit 13 to this Form 10-K, which is incorporated by reference herein. If the foregoing regulatory support is reduced from current levels, this could have an adverse effect on U.S. Cellular's business, financial condition or operating results.

Telecommunications providers pay a variety of surcharges and fees on their gross revenues from interstate and intrastate services, including USF fees and common carrier regulatory fees.

The division of services between interstate services and intrastate services, including the divisions associated with Federal USF fees, is a matter of interpretation and in the future may be contested by the FCC or state authorities. The FCC in the future also may change the basis on which Federal USF fees are charged. The Federal government and many states also apply transaction-based taxes to sales of telecommunications services and products and to purchases of telecommunications services from various carriers. In addition, state regulators and local governments have imposed and may continue to impose various surcharges, taxes and fees on telecommunications services. The applicability of these surcharges and fees to U.S. Cellular's services is uncertain in many cases and jurisdictions may contest whether U.S. Cellular has assessed and remitted those monies correctly. Periodically, state and federal regulators may increase or change the surcharges and fees U.S. Cellular currently pays. In some instances, U.S. Cellular passes through these charges to its customers. However, Congress, the FCC, state regulatory agencies or state legislatures may limit the ability to pass through transaction-based tax liabilities, regulatory surcharges and regulatory fees imposed on U.S. Cellular to customers. U.S. Cellular may or may not be able to recover some or all of those taxes from its customers and the amount of taxes may deter demand for its services or increase its cost to provide service which could have an adverse effect on its business, financial condition or operating results.

16) Changes in U.S. Cellular’s enterprise value, changes in the market supply or demand for wireless spectrum licenses, adverse developments in the business or the industry in which U.S. Cellular is involved and/or other factors could require U.S. Cellular to recognize impairments in the carrying value of its wireless spectrum licenses and/or physical assets.

A large portion of U.S. Cellular’s assets consists of indefinite-lived intangible assets in the form of wireless spectrum licenses. U.S. Cellular also has substantial investments in long-lived assets such as property, plant and equipment. U.S. Cellular reviews its wireless spectrum licenses and other long-lived assets for impairment annually or whenever events or circumstances indicate that the carrying amount of such assets may not be fully recoverable. An impairment loss may need to be recognized to the extent the carrying value of the assets exceeds the fair value of such assets. The amount of any such impairment loss could be significant and could have an adverse effect on U.S. Cellular’s reported financial results for the period in which the loss is recognized. The estimation of fair values requires assumptions by management about factors that are uncertain. Different assumptions for these factors could create materially different results.

17) Costs, integration problems or other factors associated with acquisitions, divestitures or exchanges of properties or wireless spectrum licenses and/or expansion of U.S. Cellular’s business could have an adverse effect on U.S. Cellular’s business, financial condition or results of operations.

As part of U.S. Cellular’s operating strategy, U.S. Cellular from time to time may be engaged in the acquisition, divestiture or exchange of companies, businesses, strategic properties, wireless spectrum or other assets. U.S. Cellular may change the markets in which it operates and the services that it provides through such acquisitions, divestitures and/or exchanges. In general, U.S. Cellular may not disclose the negotiation of such transactions until a definitive agreement has been reached.

These transactions commonly involve a number of risks, including:

- Identification of attractive companies, businesses, properties, spectrum or other assets for acquisition or exchange, and/or the selection of U.S. Cellular’s businesses or assets for divestiture or exchange;
- Competition for acquisition targets and the ability to acquire or exchange businesses at reasonable prices;
- Inability to make acquisitions that would achieve sufficient scale to be competitive with competitors with greater scale;
- Possible lack of buyers for businesses or assets that U.S. Cellular desires to divest and the ability to divest or exchange such businesses or assets at reasonable prices;
- Ability to negotiate favorable terms and conditions for acquisitions, divestitures and exchanges;
- Significant expenditures associated with acquisitions, divestitures and exchanges;
- Risks associated with integrating new businesses or markets, including risks relating to cybersecurity and privacy;
- Ability to enter markets in which U.S. Cellular has limited or no direct prior experience and competitors have stronger positions;
- Ability to integrate and manage businesses that are engaged in activities other than traditional wireless service;
- Uncertain revenues and expenses associated with acquisitions, with the result that U.S. Cellular may not realize the growth in revenues, anticipated cost structure, profitability, or return on investment that it expects;
- Difficulty of integrating the technologies, services, products, operations and personnel of the acquired businesses, or of separating such matters for divested businesses or assets;
- Diversion of management’s attention;
- Disruption of ongoing business;
- Impact on U.S. Cellular’s cash and available credit lines for use in financing future growth and working capital needs;
- Inability to retain key personnel;
- Inability to successfully incorporate acquired assets and rights into U.S. Cellular’s service offerings;
- Inability to maintain uniform standards, controls, procedures and policies;
- Possible conditions to approval by the FCC, the Federal Trade Commission and/or the Department of Justice; and
- Impairment of relationships with employees, customers or vendors.

No assurance can be given that U.S. Cellular will be successful with respect to its acquisition, divestiture or exchange strategies or initiatives. If U.S. Cellular is not successful with respect to its acquisitions, divestitures or exchanges, its business, financial condition or results of operations could be adversely affected.

18) A failure by U.S. Cellular to complete significant network construction and systems implementation activities as part of its plans to improve the quality, coverage, capabilities and capacity of its network, support and other systems and infrastructure could have an adverse effect on its operations.

U.S. Cellular’s business plan includes significant construction activities and enhancements to its network, support and other systems and infrastructure. Additionally, the deployment of new wireless technologies, including 5G, may require substantial investments in U.S. Cellular's wireless network. As U.S. Cellular deploys, expands and enhances its network, it may need to acquire additional spectrum. Also, as U.S. Cellular continues to build out and enhance its network, U.S. Cellular must, among other things, continue to:

- Lease, acquire or otherwise obtain rights to cell and switch sites;
- Obtain zoning variances or other local governmental or third-party approvals or permits for network construction;
- Complete and update the radio frequency design, including cell site design, frequency planning and network optimization, for each of U.S. Cellular’s markets; and
- Improve, expand and maintain customer care, network management, billing and other financial and management systems.

Any difficulties encountered in completing these activities, as well as problems in vendor equipment availability, technical resources, system performance or system adequacy, could delay implementation and deployment of new technologies, delay expansion of operations and product capabilities in new or existing markets or result in increased costs. Failure to successfully deploy new technologies, including 5G, and/or build-out and enhance U.S. Cellular’s network, support facilities and other systems and infrastructure in a cost-effective manner, and in a manner that satisfies consumers' expectations for quality and coverage, could have an adverse effect on U.S. Cellular’s business, business prospects, financial condition or results of operations.

19) Difficulties involving third parties with which U.S. Cellular does business, including changes in U.S. Cellular's relationships with or financial or operational difficulties of key suppliers or independent agents and third party national retailers who market U.S. Cellular’s services, could adversely affect U.S. Cellular’s business, financial condition or results of operations.

U.S. Cellular has relationships with independent agents and third party national retailers who market U.S. Cellular services. If such relationships are seriously harmed or if such parties experience financial difficulties, including bankruptcy, U.S. Cellular’s business, financial condition or results of operations could be adversely affected.

U.S. Cellular depends upon certain vendors to provide it with equipment (including wireless devices), services or content that meet its quality and cost requirements on a timely basis to continue its network construction and upgrades, and to operate its business. U.S. Cellular does not have operational or financial control over such key suppliers and has limited influence with respect to the manner in which these key suppliers conduct their businesses. If these key suppliers (i) experience financial difficulties or file for bankruptcy or experience other operational difficulties or (ii) deem U.S. Cellular non-strategic and not develop or sell services and products to U.S. Cellular, particularly where technical requirements differ from those of larger companies, they may not provide equipment, services or content to U.S. Cellular on a timely basis, or at all, or they may otherwise fail to honor their obligations to U.S. Cellular. Furthermore, consolidation among key suppliers may result in less competition and higher prices or the discontinuation of support for equipment owned by U.S. Cellular.

Operation of U.S. Cellular’s supply chain and management of its inventory require accurate forecasting of customer growth and demand, which has become increasingly challenging. If overall demand for wireless devices or the mix of demand for wireless devices is significantly different than U.S. Cellular’s expectations, U.S. Cellular could face inadequate or excess supplies of particular models of wireless devices. This could result in lost sales opportunities or an excess supply of inventory. Further, U.S. Cellular's supply chain could be disrupted unexpectedly by raw material shortages, wars, natural disasters, disease or other factors. Any of these situations could adversely affect U.S. Cellular’s revenues, costs of doing business, results of operations or financial condition.

Also, U.S. Cellular has other arrangements with third parties, including arrangements pursuant to which U.S. Cellular outsources certain support functions to third party vendors. Operational problems associated with such functions, including any failure by the vendor to provide the required level of service under the outsourcing arrangements, including possible cyber-attacks or other breaches of network or information technology security or privacy, could have adverse effects on U.S. Cellular’s business, financial condition or results of operations.

20) U.S. Cellular has significant investments in entities that it does not control. Losses in the value of such investments could have an adverse effect on U.S. Cellular’s financial condition or results of operations.

U.S. Cellular has significant investments in entities that it does not control, including equity investments and interests in certain variable interest entities. U.S. Cellular’s interests in such entities do not provide U.S. Cellular with control over the business strategy, financial goals, network build-out plans or other operational aspects of these entities. U.S. Cellular cannot provide assurance that these entities will operate in a manner that will increase or maintain the value of U.S. Cellular’s investments, that U.S. Cellular’s proportionate share of income from these investments will continue at the current level in the future or that U.S. Cellular will not incur losses from the holding of such investments. Losses in the values of such investments or a reduction in income from these investments could adversely affect U.S. Cellular’s financial condition or results of operations. In addition, certain investments have historically contributed significant cash flows to U.S. Cellular and a reduction or suspension of such cash flows could adversely affect U.S. Cellular’s financial condition.

21) A failure by U.S. Cellular to maintain flexible and capable telecommunication networks or information technology, or a material disruption thereof, could have an adverse effect on U.S. Cellular’s business, financial condition or results of operations.

U.S. Cellular relies extensively on its telecommunication networks and information technology to operate and manage its business, process transactions and summarize and report results. These networks and technology are subject to obsolescence and, consequently, must be upgraded, replaced and/or otherwise enhanced over time. Enhancements must be more flexible and dependable than ever before. All of this is capital intensive and challenging. A failure by U.S. Cellular to maintain flexible and capable telecommunication networks or information technology could have an adverse effect on U.S. Cellular’s business, financial condition or results of operations.

The increased provision of data services has introduced significant new demands on U.S. Cellular’s network and also has increased complexities related to network management. Further, the increased provision of data services on U.S. Cellular’s networks has created an increased level of risk related to quality of service. This is due to the fact that many customers increasingly rely on data communications to execute and validate transactions. As a result, redundancy and geographical diversity of U.S. Cellular’s network facilities are critical to providing uninterrupted service. Also, the speed of repair and maintenance procedures in the event of network interruptions is critical to maintaining customer satisfaction. U.S. Cellular’s ability to maintain high-quality, uninterrupted service to its customers is critical, particularly given the increasingly competitive environment and customers’ ability to choose other service providers.

In addition, U.S. Cellular’s networks and information technology and the networks and information technology of vendors on which U.S. Cellular relies are subject to damage or interruption due to various events, including power outages, computer, network and telecommunications failures, computer viruses, security breaches, hackers and other cyber security risks, catastrophic events, natural disasters, errors or unauthorized actions by employees and vendors, flawed conversion of systems, disruptive technologies and technology changes.

22) U.S. Cellular has experienced, and in the future expects to experience, cyber-attacks or other breaches of network or information technology security of varying degrees on a regular basis, which could have an adverse effect on U.S. Cellular's business, financial condition or results of operations.

U.S. Cellular experiences cyber-attacks of varying degrees on a regular basis. These include cyber-attacks intended to wrongfully obtain private and valuable information, or cause other types of malicious events, including denial of service attacks which may cause U.S. Cellular's services to be disrupted or unavailable to customers. U.S. Cellular maintains administrative, technical and physical controls, as well as other preventative actions, to reduce the risk of security breaches. Although to date U.S. Cellular has not discovered a material security breach, these efforts may be insufficient to prevent a material security breach stemming from future cyber-attacks. If U.S. Cellular’s or its vendors’ networks and information technology are not adequately adapted to changes in technology or are damaged or fail to function properly, and/or if U.S. Cellular’s or its vendors’ security is breached or otherwise compromised, U.S. Cellular could suffer adverse consequences, including theft, destruction or other loss of critical and private data, including customer and/or employee data, interruptions or delays in its operations, inaccurate billings, inaccurate financial reporting, and significant costs to remedy the problems. If U.S. Cellular’s or its vendors’ systems become unavailable or suffer a security breach of customer or other data, U.S. Cellular may be required to expend significant resources and take various actions to address the problems, including notification under data privacy laws and regulations, may be subject to fines, sanctions and litigation, and its reputation and operating results could be adversely affected. U.S. Cellular continues to experience denial of service attacks. Although U.S. Cellular has implemented and continues to enhance its protection and recovery measures in response to such attacks, these efforts may be insufficient to prevent a material denial of service attack in the future. Any material disruption in U.S. Cellular’s networks or information technology, including security breaches, could have an adverse effect on U.S. Cellular’s business, financial condition or results of operations.

23) Changes in facts or circumstances, including new or additional information, could require U.S. Cellular to record adjustments to amounts reflected in the financial statements, which could have an adverse effect on U.S. Cellular’s business, financial condition or results of operations.

The preparation of financial statements requires U.S. Cellular to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. U.S. Cellular bases its estimates on historical experience and on various other assumptions and information that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities. Actual results may differ from estimates under different assumptions or conditions. Changes in facts or circumstances, including new or additional information, could require U.S. Cellular to record charges in excess of amounts accrued in the financial statements, if any, which could have an adverse effect on U.S. Cellular’s business, financial condition or results of operations.

24) Disruption in credit or other financial markets, a deterioration of U.S. or global economic conditions or other events could, among other things, impede U.S. Cellular's access to or increase the cost of financing its operating and investment activities and/or result in reduced revenues and lower operating income and cash flows, which would have an adverse effect on U.S. Cellular's business, financial condition or results of operations.

Disruptions in the credit and financial markets, declines in consumer confidence, increases in unemployment, declines in economic growth, increased tariffs on import goods and uncertainty about corporate earnings could have a significant negative impact on the U.S. and global financial and credit markets and the overall economy. Such events could have an adverse impact on financial institutions resulting in limited access to capital and credit for many companies. Furthermore, economic uncertainties make it very difficult to accurately forecast and plan future business activities. Changes in economic conditions, changes in financial markets, changes in U.S. trade policies, deterioration in the capital markets or other factors could have an adverse effect on U.S. Cellular's business, financial condition, revenues, results of operations and cash flows.

25) Settlements, judgments, restraints on its current or future manner of doing business and/or legal costs resulting from pending and future litigation could have an adverse effect on U.S. Cellular's business, financial condition or results of operations.

U.S. Cellular is regularly involved in a number of legal and policy proceedings before the FCC and various state and federal courts. Such legal and policy proceedings can be complex, costly, protracted and highly disruptive to business operations by diverting the attention and energies of management and other key personnel.

The assessment of legal and policy proceedings is a highly subjective process that requires judgments about future events. Additionally, amounts ultimately received or paid upon settlement or resolution of litigation and other contingencies may differ materially from amounts accrued in the financial statements. Depending on a range of factors, these or similar proceedings could impose restraints on U.S. Cellular's current or future manner of doing business. Such potential outcomes could have an adverse effect on U.S. Cellular's financial condition, results of operations or ability to do business.

26) The possible development of adverse precedent in litigation or conclusions in professional studies to the effect that radio frequency emissions from wireless devices and/or cell sites cause harmful health consequences, including cancer or tumors, or may interfere with various electronic medical devices such as pacemakers, could have an adverse effect on U.S. Cellular's business, financial condition or results of operations.

Media reports and certain professional studies have suggested that certain radio frequency emissions from wireless devices may be linked to various health problems, including cancer or tumors, and may interfere with various electronic medical devices, including hearing aids and pacemakers. U.S. Cellular is a party to and may in the future be a party to lawsuits against wireless carriers and other parties claiming damages for alleged health effects, including cancer or tumors, arising from wireless phones or radio frequency transmitters. Concerns over radio frequency emissions may discourage use of wireless devices or expose U.S. Cellular to potential litigation. In addition, the FCC or other regulatory authorities may adopt regulations in response to concerns about radio frequency emissions. Any resulting decrease in demand for wireless services, costs of litigation and damage awards or regulation could have an adverse effect on U. S. Cellular's business, financial condition or results of operations.

In addition, some studies have indicated that some aspects of using a wireless device while driving may impair a driver's attention in certain circumstances, making accidents more likely. These concerns could lead to potential litigation relating to accidents, deaths or serious bodily injuries, any of which could have an adverse effect on U.S. Cellular's business, financial condition or results of operations.

27) Claims of infringement of intellectual property and proprietary rights of others, primarily involving patent infringement claims, could prevent U.S. Cellular from using necessary technology to provide products or services or subject U.S. Cellular to expensive intellectual property litigation or monetary penalties, which could have an adverse effect on U.S. Cellular's business, financial condition or results of operations.

U.S. Cellular faces possible effects of industry litigation relating to patents, other intellectual property or otherwise, that may restrict U.S. Cellular's access to devices or network equipment critical to providing services to customers. If technology that U.S. Cellular uses in products or services were determined by a court to infringe a patent or other intellectual property right held by another person, U.S. Cellular could be precluded from using that technology and could be required to pay significant monetary damages. U.S. Cellular also may be required to pay significant royalties to such person to continue to use such technology in the future. The successful enforcement of any intellectual property rights, or U.S. Cellular's inability to negotiate a license for such rights on acceptable terms, could force U.S. Cellular to cease using the relevant technology and offering services incorporating the technology. Any litigation to determine the validity of claims that U.S. Cellular's products or services infringe or may infringe intellectual property rights of another, regardless of their merit or resolution, could be costly and divert the effort and attention of U.S. Cellular's management and technical personnel. Regardless of the merits of any specific claim, U.S. Cellular cannot give assurance that it would prevail in litigation because of the complex technical issues and inherent uncertainties in intellectual property litigation. Although U.S. Cellular generally seeks to obtain indemnification agreements from vendors that provide it with technology, there can be no assurance that any claim of infringement will be covered by an indemnity or that U.S. Cellular will be able to recover all or any of its losses and costs under any available indemnity agreements. Any claims of infringement of intellectual property and proprietary rights of others could prevent U.S. Cellular from using necessary technology to provide its services or subject U.S. Cellular to expensive intellectual property litigation or monetary penalties, which could have an adverse effect on U.S. Cellular's business, financial condition or results of operations.

28) There are potential conflicts of interests between TDS and U.S. Cellular.

TDS owns over 80% of the combined total of both classes of common stock of U.S. Cellular, including a majority of the outstanding Common Shares and 100% of the Series A Common Shares, and controls 96% of their combined voting power. As a result, TDS is effectively able to elect all of U.S. Cellular's eleven directors and otherwise control the management and operations of U.S. Cellular. Six of the eleven directors of U.S. Cellular are also directors of TDS and/or executive officers of TDS and/or U.S. Cellular. Directors and officers of TDS who are also directors or officers of U.S. Cellular, and TDS as U.S. Cellular's controlling shareholder, are in positions involving the possibility of conflicts of interest with respect to certain transactions concerning U.S. Cellular. When the interests of TDS and U.S. Cellular diverge, TDS may exercise its influence in its own best interests.

U.S. Cellular and TDS have entered into contractual arrangements governing certain transactions and relationships between them. Some of these agreements were executed prior to the initial public offering of U.S. Cellular's Common Shares and were not the result of arm's-length negotiations. Accordingly, there is no assurance that the terms and conditions of these agreements are as favorable to U.S. Cellular as could have been obtained from unaffiliated third parties. See "Certain Relationships and Related Transactions" in this Form 10-K.

Conflicts of interest may arise between TDS and U.S. Cellular when faced with decisions that could have different implications for U.S. Cellular and TDS, including technology decisions, financial decisions, the payment of distributions by U.S. Cellular, agreements or transactions between TDS and U.S. Cellular, business activities and other matters. TDS also may take action that favors its other businesses and the interests of its shareholders over U.S. Cellular's wireless business and the interests of U.S. Cellular shareholders and debt holders. Because TDS controls U.S. Cellular, conflicts of interest could be resolved in a manner adverse to U.S. Cellular and its other shareholders or its debt holders.

The U.S. Cellular Restated Certificate of Incorporation provides that, so long as not less than 500,000 Series A Common Shares are outstanding, U.S. Cellular, without the written consent of TDS, shall not, directly or indirectly own, invest or otherwise have an interest in, lease, operate or manage any business other than a business engaged solely in the construction of, the ownership of interests in and/or the management of wireless telephone systems. This limitation on the scope of U.S. Cellular's potential business could hurt the growth of U.S. Cellular's business. This restriction would preclude U.S. Cellular from pursuing attractive related or unrelated business opportunities unless TDS consents in writing. TDS has no obligation to consent to any business opportunities proposed by U.S. Cellular and may withhold its consent in its own best interests.

29) Certain matters, such as control by TDS and provisions in the U.S. Cellular Restated Certificate of Incorporation, may serve to discourage or make more difficult a change in control of U.S. Cellular or have other consequences.

The control of U.S. Cellular by TDS may tend to deter non-negotiated tender offers or other efforts to obtain control of U.S. Cellular and thereby deprive shareholders of opportunities to sell shares at prices higher than those prevailing in the market.

The U.S. Cellular Restated Certificate of Incorporation also contains provisions which may serve to discourage or make more difficult a change in control of U.S. Cellular without the support of TDS or without meeting various other conditions. In particular, the authorization of multiple classes of capital stock with different voting rights could prevent shareholders from profiting from an increase in the market value of their shares as a result of a change in control of U.S. Cellular by delaying or preventing such change in control.

The U.S. Cellular Restated Certificate of Incorporation also authorizes the U.S. Cellular Board of Directors to designate and issue Preferred Shares in one or more classes or series from time to time. Generally, no further action or authorization by the shareholders is necessary prior to the designation or issuance of the additional Preferred Shares authorized pursuant to the U.S. Cellular Restated Certificate of Incorporation unless applicable laws or regulations would require such approval in a given instance. Such Preferred Shares could be issued in circumstances that would serve to preserve TDS' control of U.S. Cellular.

The provisions of the U.S. Cellular Restated Certificate of Incorporation and the existence of different classes of capital stock and voting rights could result in the exclusion of U.S. Cellular Common Shares from certain major stock indices at some point in the future, unless U.S. Cellular is grandfathered by such stock indices or qualifies for some other exception.

30) The market price of U.S. Cellular's Common Shares is subject to fluctuations due to a variety of factors.

Factors that may affect the future market price of U.S. Cellular's Common Shares include:

- General economic conditions, including conditions in the credit and financial markets;
- Industry conditions;
- Fluctuations in U.S. Cellular's quarterly customer additions, churn rate, revenues, results of operations or cash flows;
- Variations between U.S. Cellular's actual financial and operating results and those expected by analysts and investors; and
- Announcements by U.S. Cellular's competitors.

Any of these or other factors could adversely affect the future market price of U.S. Cellular's Common Shares, or could cause the future market price of U.S. Cellular's Common Shares to fluctuate from time to time.

31) Any of the foregoing events or other events could cause revenues, earnings, capital expenditures and/or any other financial or statistical information to vary from U.S. Cellular’s forward-looking estimates by a material amount.

From time to time, U.S. Cellular may disclose forward-looking information, including estimates of future operating revenues; various measures of income before income taxes; and/or capital expenditures. Any such forward-looking information includes consideration of known or anticipated changes to the extent disclosed, but dynamic market conditions and/or other unknown or unanticipated events, including but not limited to the risks discussed above, could cause such estimates to differ materially from the actual amounts.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

U.S. Cellular has properties located throughout the United States. U.S. Cellular’s corporate headquarters is located in Chicago, IL. U.S. Cellular's local business offices, cell sites, cell site equipment, connectivity centers, data centers, call centers and retail stores are located primarily in U.S. Cellular’s operating markets. These properties are either owned or leased by U.S. Cellular, one of its subsidiaries, or the partnership, limited liability company or corporation which holds the license issued by the FCC.

As of December 31, 2019, U.S. Cellular’s gross investment in property, plant and equipment was $8,293 million.

Item 3. Legal Proceedings

U.S. Cellular is involved or may be involved from time to time in legal proceedings before the FCC, other regulatory authorities, and/or various state and federal courts. If U.S. Cellular believes that a loss arising from such legal proceedings is probable and can be reasonably estimated, an amount is accrued in the financial statements for the estimated loss. If only a range of loss can be determined, the best estimate within that range is accrued; if none of the estimates within that range is better than another, the low end of the range is accrued. The assessment of the expected outcomes of legal proceedings is a highly subjective process that requires judgments about future events. The legal proceedings are reviewed at least quarterly to determine the adequacy of accruals and related financial statement disclosures. The ultimate outcomes of legal proceedings could differ materially from amounts accrued in the financial statements. See Note 13 — Commitments and Contingencies in the Notes to Consolidated Financial Statements for further information.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market, holder, dividend and performance graph information is incorporated by reference from Exhibit 13 to this Form 10-K Annual Report section entitled "Shareholder Information."

U.S. Cellular has not paid any cash dividends in recent periods and currently intends to retain all earnings for use in U.S. Cellular's business.

Information relating to Issuer Purchases of Equity Securities is set forth below.

In November 2009, U.S. Cellular announced by Form 8-K that the Board of Directors of U.S. Cellular authorized the repurchase of up to 1,300,000 Common Shares on an annual basis beginning in 2009 and continuing each year thereafter, on a cumulative basis. In December 2016, the U.S. Cellular Board of Directors amended this authorization to provide that, beginning on January 1, 2017, the authorized repurchase amount with respect to a particular year will be any amount from zero to 1,300,000 Common Shares, as determined by the Pricing Committee of the Board of Directors, and that if the Pricing Committee did not specify an amount for any year, such amount would be zero for such year. The Pricing Committee has not specified any increase in the authorization since that time. The Pricing Committee also was authorized to decrease the cumulative amount of the authorization at any time, but has not taken any action to do so at this time. The authorization provides that share repurchases will be made pursuant to open market purchases, block purchases, private purchases, or otherwise, depending on market prices and other conditions. This authorization does not have an expiration date. U.S. Cellular did not determine to terminate the foregoing Common Share repurchase program, as amended, or cease making further purchases thereunder, during the fourth quarter of 2019.

The maximum number of shares that may yet be purchased under this program was 5,311,000 as of December 31, 2019. There were no purchases made by or on behalf of U.S. Cellular, and no open market purchases made by any "affiliated purchaser" (as defined by the SEC) of U.S. Cellular, of U.S. Cellular Common Shares during the quarter ended December 31, 2019.

Item 6. Selected Financial Data

Incorporated by reference from Exhibit 13 to this Form 10-K Annual Report section entitled "Selected Consolidated Financial Data."

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Incorporated by reference from Exhibit 13 to this Form 10-K Annual Report section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations."

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Incorporated by reference from Exhibit 13 to this Form 10-K Annual Report section entitled "Market Risk."

Item 8. Financial Statements and Supplementary Data

Incorporated by reference from Exhibit 13 to this Form 10-K Annual Report sections entitled "Consolidated Statement of Operations," "Consolidated Statement of Cash Flows," "Consolidated Balance Sheet," "Consolidated Statement of Changes in Equity," "Notes to Consolidated Financial Statements," "Management's Report on Internal Control Over Financial Reporting," "Report of Independent Registered Public Accounting Firm," and "Consolidated Quarterly Information (Unaudited)." The Consolidated Statement of Comprehensive Income was not included because comprehensive income for the years ended December 31, 2019, 2018 and 2017 equaled net income.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

U.S. Cellular maintains disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) that are designed to ensure that information required to be disclosed in its reports filed or submitted under the Exchange Act is processed, recorded, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to U.S. Cellular's management, including its principal executive officer and principal financial officer, as appropriate, to allow for timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives.

As required by SEC Rule 13a-15(b), U.S. Cellular carried out an evaluation, under the supervision and with the participation of management, including its principal executive officer and principal financial officer, of the effectiveness of the design and operation of U.S. Cellular's disclosure controls and procedures as of the end of the period covered by this Annual Report. Based on this evaluation, the principal executive officer and principal financial officer have concluded that U.S. Cellular's disclosure controls and procedures were effective as of December 31, 2019, at the reasonable assurance level.

Management's Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. U.S. Cellular'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 accounting principles generally accepted in the United States of America (GAAP). U.S. Cellular's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the issuer; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP, and that receipts and expenditures of the issuer are being made only in accordance with authorizations of management and, where required, the board of directors of the issuer; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the issuer's assets that could have a material effect on the interim or annual consolidated 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.

Under the supervision and with the participation of U.S. Cellular's management, including its principal executive officer and principal financial officer, U.S. Cellular conducted an evaluation of the effectiveness of its internal control over financial reporting as of December 31, 2019, based on the criteria established in the 2013 version of *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Management has concluded that U.S. Cellular maintained effective internal control over financial reporting as of December 31, 2019, based on criteria established in the 2013 version of *Internal Control — Integrated Framework* issued by the COSO.

The effectiveness of U.S. Cellular's internal control over financial reporting as of December 31, 2019, has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in the firm's report which is incorporated by reference into Item 8 of this Annual Report on Form 10-K from Exhibit 13 filed herewith.

Changes in Internal Control over Financial Reporting

There were no changes in U.S. Cellular's internal control over financial reporting during the fourth quarter of 2019 that have materially affected, or are reasonably likely to materially affect, U.S. Cellular's internal control over financial reporting.

Item 9B. Other Information

The following information is being provided to update prior disclosures made pursuant to the requirements of Form 8-K, Item 2.03 – Creation of a Direct Financial Obligation or an Obligation Under an Off-Balance Sheet Arrangement of a Registrant.

U.S. Cellular did not borrow or repay any cash amounts under its revolving credit facility in the fourth quarter of 2019 or through the filing date of this Form 10-K, and had no cash borrowings outstanding under its revolving credit facility as of December 31, 2019, or as of the filing date of this Form 10-K.

Further, U.S. Cellular did not borrow or repay any cash amounts under its receivables securitization facility in the fourth quarter of 2019 or through the filing date of this Form 10-K, and had no cash borrowings outstanding under its receivables securitization facility as of December 31, 2019, or as of the filing date of this Form 10-K.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Incorporated by reference from Proxy Statement sections entitled “Election of Directors,” “Corporate Governance” and “Executive Officers.”

Item 11. Executive Compensation

Incorporated by reference from Proxy Statement section entitled “Executive and Director Compensation.”

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Incorporated by reference from Proxy Statement sections entitled “Security Ownership of Certain Beneficial Owners and Management” and “Securities Authorized for Issuance under Equity Compensation Plans.”

Item 13. Certain Relationships and Related Transactions, and Director Independence

Incorporated by reference from Proxy Statement sections entitled “Corporate Governance” and “Certain Relationships and Related Transactions.”

Item 14. Principal Accountant Fees and Services

Incorporated by reference from Proxy Statement section entitled “Fees Paid to Principal Accountants.”

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a) The following documents are filed as part of this report:

(1) Financial Statements

Consolidated Statement of Operations	Annual Report*
Consolidated Statement of Cash Flows	Annual Report*
Consolidated Balance Sheet	Annual Report*
Consolidated Statement of Changes in Equity	Annual Report*
Notes to Consolidated Financial Statements	Annual Report*
Management's Report on Internal Control Over Financial Reporting	Annual Report*
Report of Independent Registered Public Accounting Firm — PricewaterhouseCoopers LLP	Annual Report*
Consolidated Quarterly Information (Unaudited)	Annual Report*

*Incorporated by reference from Exhibit 13.

(2) Financial Statement Schedules

	Location
Los Angeles SMSA Limited Partnership Financial Statements	S-1
Report of Independent Registered Public Accounting Firm — Ernst & Young LLP	S-2
Balance Sheets — As of December 31, 2019 and 2018	S-3
Statements of Income — For the Years Ended December 31, 2019, 2018 and 2017	S-4
Statements of Changes in Partners' Capital — For the Years Ended December 31, 2019, 2018 and 2017	S-5
Statements of Cash Flows — For the Years Ended December 31, 2019, 2018 and 2017	S-6
Notes to Financial Statements	S-7

All other schedules have been omitted because they are not applicable or not required or because the required information is shown in the financial statements or notes thereto.

(3) Exhibits

The exhibits set forth below are filed as a part of this Report. Compensatory plans or arrangements are identified below with an asterisk.

Table of Contents

Exhibit Number	Description of Documents
3.1	Restated Certificate of Incorporation, is hereby incorporated by reference to Exhibit 3.1 to U.S. Cellular's Current Report on Form 8-K dated November 10, 2014.
3.2	Restated Bylaws, as amended, are hereby incorporated by reference to Exhibit 3.1 to U.S. Cellular's Current Report on Form 8-K dated May 21, 2019.
4.1	Restated Certificate of Incorporation incorporated herein as Exhibit 3.1.
4.2	Restated Bylaws, as amended, are incorporated herein as Exhibit 3.2.
4.3(a)	Revolving Credit Agreement, among U.S. Cellular, Toronto Dominion (Texas) LLC, as administrative agent, and the other lenders thereto, dated as of May 10, 2018, including Schedules and Exhibits, including the form of the subsidiary Guaranty and Subordination Agreement, is hereby incorporated by reference to Exhibit 4.1 to U.S. Cellular's Form 8-K dated May 10, 2018.
4.3(b)	First Amendment to Revolving Credit Agreement, among U.S. Cellular, Toronto Dominion (Texas) LLC, as administrative agent and the other lenders thereto, dated as of January 30, 2019 is hereby incorporated by reference to Exhibit 4.3(b) to U.S. Cellular's Annual Report on Form 10-K for the year ended December 31, 2018.
4.4(a)	Indenture for Senior Debt Securities dated June 1, 2002, between U.S. Cellular and The Bank of New York Mellon Trust Company, N.A., formerly known as BNY Midwest Trust Company of New York (BNY) is hereby incorporated by reference to Exhibit 4.1 to Form S-3 dated May 31, 2013 (File No. 333-188971).
4.4(b)	Form of Third Supplemental Indenture dated December 3, 2003, between U.S. Cellular and BNY Midwest Trust Company, relating to $444,000,000 of U.S. Cellular's 6.7% Senior Notes due 2033, is hereby incorporated by reference to Exhibit 4.1 to U.S. Cellular's Current Report on Form 8-K dated December 3, 2003.
4.4(c)	Form of Fifth Supplemental Indenture dated June 21, 2004, between U.S. Cellular and BNY Midwest Trust Company, relating to $100,000,000 of U.S. Cellular's 6.7% Senior Notes due 2033, is hereby incorporated by reference to Exhibit 4.1 to U.S. Cellular's Current Report on Form 8-K dated June 21, 2004.
4.4(d)	Form of Sixth Supplemental Indenture dated as of May 9, 2011, between U.S. Cellular and BNY Midwest Trust Company, related to $342,000,000 of U.S. Cellular's 6.95% Senior Notes due 2060, is hereby incorporated by reference to Exhibit 4.1 to U.S. Cellular's Current Report on Form 8-K dated May 9, 2011.
4.4(e)	Form of Seventh Supplemental Indenture dated as of December 8, 2014, between U.S. Cellular and BNY Midwest Trust Company, related to $275,000,000 of U.S. Cellular's 7.25% Senior Notes due 2063, is hereby incorporated by reference to Exhibit 2 to U.S. Cellular's Registration Statement on Form 8-A dated December 2, 2014.
4.4(f)	Form of Eighth Supplemental Indenture dated as of November 23, 2015, between U.S. Cellular and BNY Midwest Trust Company, related to $300,000,000 of U.S. Cellular's 7.25% Senior Notes due 2064, is hereby incorporated by reference to Exhibit 2 to U.S. Cellular's Registration Statement on Form 8-A dated November 17, 2015.
4.5	Indenture for Subordinated Debt Securities between U.S. Cellular and BNY is hereby incorporated by reference to Exhibit 4.1 to U.S. Cellular's Current Report on Form 8-K dated September 16, 2013.
4.6(a)	Amended and Restated Term Loan Credit Agreement, among U.S. Cellular and CoBank, ACB, as administrative agent, and the other lenders thereto, dated as of June 15, 2016, including Schedules and Exhibits, including the forms of the subsidiary Guaranty and Subordination Agreement, is hereby incorporated by reference to Exhibit 4.1 to U.S. Cellular's Form 8-K dated June 15, 2016.
4.6(b)	First Amendment to Amended and Restated Term Loan Credit Agreement, among U.S. Cellular, Cobank, ACB, as administrative agent, and the other lenders thereto, dated as of May 10, 2018, is hereby incorporated by reference to Exhibit 4.2 to U.S. Cellular's Form 8-K dated May 10, 2018.
4.6(c)	Second Amendment to Amended and Restated Term Loan Credit Agreement, among U.S. Cellular, Cobank, ACB, as administrative agent, and the other lenders thereto, dated as of January 30, 2019 is hereby incorporated by reference to Exhibit 4.6(c) to U.S. Cellular's Annual Report on Form 10-K for the year ended December 31, 2018.
4.6(d)	Third Amendment to Amended and Restated Term Loan Credit Agreement, among U.S. Cellular, CoBank, ACB, as administrative agent, and the other lenders thereto, dated as of March 14, 2019, is hereby incorporated by reference to Exhibit 4.1 to U.S. Cellular's Quarterly Report on Form 10-Q for the period ended March 31, 2019.
4.7(a)	Master Indenture for asset-backed notes by and among USCC Master Note Trust, USCC Services, LLC and U.S. Bank National Association, as Indenture Trustee, dated December 20, 2017, is hereby incorporated by reference to Exhibit 4.1 to U.S. Cellular's Form 8-K dated December 20, 2017.
4.7(b)***	Omnibus Amendment No. 1 to Master Indenture, Series 2017-VFN Indenture Supplement, Note Purchase Agreement, Receivables Purchase Agreement and Transfer and Servicing Agreement dated September 30, 2019 among USCC Master Note Trust, U.S. Bank National Association, as Indenture Trustee, USCC Services, LLC, USCC Receivables Funding LLC, USCC EIP LLC, and Royal Bank of Canada, as administrative agent for owners of the notes is hereby incorporated by reference to Exhibit 4.3 to U.S. Cellular's Quarterly Report on Form 10-Q for the period ended September 30, 2019.

4.8	Supplemental Indenture for Series 2017-VFN Floating Rate Asset-Backed Notes by and among USCC Master Note Trust, USCC Services, LLC and U.S. Bank National Association, dated December 20, 2017, is hereby incorporated by reference to Exhibit 4.2 to U.S. Cellular's Form 8-K dated December 20, 2017.

4.9	Description of U.S. Cellular's Securities.
9.1	Amendment and Restatement (dated April 22, 2005) of Voting Trust Agreement dated June 30, 1989 is hereby incorporated by reference to the Exhibit filed on Amendment No. 3 to the Schedule 13D dated May 2, 2005, filed by the trustees of such voting trust with respect to TDS Common Shares.
10.1**	Tax Allocation Agreement between U.S. Cellular and TDS is hereby incorporated by reference to an exhibit to U.S. Cellular's Registration Statement on Form S-1 (Registration No. 33-16975).
10.2	Cash Management Agreement between U.S. Cellular and TDS dated December 15, 2017, is hereby incorporated by reference to Exhibit 10.2 to U.S. Cellular's Annual Report on Form 10-K for the year ended December 31, 2017.
10.3**	Registration Rights Agreement between U.S. Cellular and TDS is hereby incorporated by reference to an exhibit to U.S. Cellular's Registration Statement on Form S-1 (Registration No. 33-16975).
10.4**	Exchange Agreement between U.S. Cellular and TDS, as amended, is hereby incorporated by reference to an exhibit to U.S. Cellular's Registration Statement on Form S-1 (Registration No. 33-16975).
10.5**	Intercompany Agreement between U.S. Cellular and TDS is hereby incorporated by reference to an exhibit to U.S. Cellular's Registration Statement on Form S-1 (Registration No. 33-16975).
10.6**	Employee Benefit Plans Agreement between U.S. Cellular and TDS is hereby incorporated by reference to an exhibit to U.S. Cellular's Registration Statement on Form S-1 (Registration No. 33-16975).
10.7**	Insurance Cost Sharing Agreement between U.S. Cellular and TDS is hereby incorporated by reference to an exhibit to U.S. Cellular's Registration Statement on Form S-1 (Registration No. 33-16975).
10.8(a)*	TDS Supplemental Executive Retirement Plan, as amended and restated, effective January 1, 2009, is hereby incorporated by reference to Exhibit 10.1 to TDS' Current Report on Form 8-K dated August 27, 2008.
10.8(b)*	Amendment Number One to the TDS Supplemental Executive Retirement Plan, is hereby incorporated by reference to Exhibit 10.2 to TDS' Current Report on Form 8-K dated March 15, 2012.
10.8(c)*	Amendment Number Two to the TDS Supplemental Executive Retirement Plan, is hereby incorporated by reference to Exhibit 10.3 to TDS' Current Report on Form 8-K dated November 3, 2014.
10.9*	U.S. Cellular Amended and Restated Compensation Plan for Non-Employee Directors, is hereby incorporated by reference to Exhibit 10.7 to U.S. Cellular's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2017.
10.10*	U.S. Cellular 2005 Long-Term Incentive Plan is hereby incorporated by reference to Exhibit C to the U.S. Cellular Notice of Annual Meeting of Shareholders and Proxy Statement dated April 15, 2009, which was filed with the SEC on Schedule 14A on April 15, 2009.
10.11(a)*	U.S. Cellular 2013 Long-Term Incentive Plan is hereby incorporated by reference to Exhibit B to the U.S. Cellular Notice of Annual Meeting of Shareholders and Proxy Statement dated April 12, 2016, which was filed with the SEC on Schedule 14A on April 12, 2016.
10.11(b)*	Amendment No. 1 to U.S. Cellular 2013 Long-Term Incentive Plan is hereby incorporated by reference to Exhibit A to the U.S. Cellular Notice of Annual Meeting of Shareholders and Proxy Statement dated April 12, 2016, which was filed with the SEC on Schedule 14A on April 12, 2016.
10.11(c)*	Amendment No. 2 to U.S. Cellular 2013 Long-Term Incentive Plan is hereby incorporated by reference to Exhibit 10.11(c) to U.S. Cellular's Annual Report on Form 10-K for the year ended December 31, 2018.
10.12*	U.S. Cellular Form of Long-Term Incentive Plan Executive Deferred Compensation Agreement —Phantom Stock Account for officers is hereby incorporated by reference to Exhibit 10.5 to U.S. Cellular's Current Report on Form 8-K dated May 14, 2013.
10.13(a)*	U.S. Cellular Executive Deferred Compensation Interest Account Plan is hereby incorporated by reference to Exhibit 10.1 to U.S. Cellular's Current Report on Form 8-K dated December 10, 2007.
10.13(b)*	First Amendment to U.S. Cellular Executive Deferred Compensation Interest Account Plan is hereby incorporated by reference to Exhibit 10.6 to U.S. Cellular's Current Report on Form 8-K dated December 9, 2008.
10.13(c)*	Second Amendment to U.S. Cellular Executive Deferred Compensation Interest Account Plan is hereby incorporated by reference to Exhibit 10.12(c) to U.S. Cellular's Annual Report on Form 10-K for the year ended December 31, 2012.
10.13(d)*	Election Form for U.S. Cellular Executive Deferred Compensation Interest Account Plan is hereby incorporated by reference to Exhibit 10.12(d) to U.S. Cellular's Annual Report on Form 10-K for the year ended December 31, 2012.
10.14*	U.S. Cellular Form of Long-Term Incentive Plan Restricted Stock Unit Award Agreement for the President and CEO, is hereby incorporated by reference to Exhibit 10.2 to U.S. Cellular's Current Report on Form 8-K dated April 3, 2017.
10.15*	U.S. Cellular Form of Long-Term Incentive Plan 2019 Performance Award Agreement for the President and CEO, is hereby incorporated by reference to Exhibit 10.2 to U.S. Cellular's Current Report on Form 8-K dated March 12, 2019.

10.16*	U.S. Cellular Form of Long-Term Incentive Plan 2019 Performance Award Agreement for Officers other than the President and CEO, is hereby incorporated by reference to Exhibit 10.1 to U.S. Cellular's Current Report on Form 8-K dated March 12, 2019.
10.17*	U.S. Cellular Form of Long-Term Incentive Plan Restricted Stock Unit Award Agreement for Officers other than the President and CEO, is hereby incorporated by reference to Exhibit 10.2 to U.S. Cellular's Current Report on Form 8-K dated March 13, 2017.
10.18*	U.S. Cellular 2019 Executive Officer Annual Incentive Plan effective January 1, 2019, is hereby incorporated by reference to Exhibit 10.1 to U.S. Cellular's Current Report on Form 8-K dated April 2, 2019.
10.19*	U.S. Cellular 2019 Officer Annual Incentive Plan effective January 1, 2019, is hereby incorporated by reference to Exhibit 10.5 to U.S. Cellular's Quarterly Report on Form 10-Q for the period ended September 30, 2019.
10.20*	Guidelines for the Determination of Annual Bonus for President and Chief Executive Officer of U.S. Cellular, are hereby incorporated by reference to Exhibit 10.2 to U.S. Cellular's Current Report on Form 8-K dated August 19, 2014.
10.21*	Letter Agreement dated July 25, 2013, between U.S. Cellular and Kenneth R. Meyers is hereby incorporated by reference to Exhibit 10.1 to U.S. Cellular's Current Report on Form 8-K dated July 25, 2013.
10.22***	2019 Master Service Agreement effective October 1, 2019 between USCC Services, LLC, and Amdocs Tethys Limited is hereby incorporated by reference to Exhibit 10.6 to U.S. Cellular's Quarterly Report on Form 10-Q for the period ended September 30, 2019.
10.23***	Amended and Restated Software License and Maintenance Agreement effective October 1, 2019 between USCC Services, LLC and Amdocs Tethys Limited is hereby incorporated by reference to Exhibit 10.9 to U.S. Cellular's Quarterly Report on Form 10-Q for the period ended September 30, 2019.
10.24***	2019 Master Statement of Work for Managed Services, effective October 1, 2019 between USCC Services, LLC and Amdocs Tethys Limited is hereby incorporated by reference to Exhibit 10.7 to U.S. Cellular's Quarterly Report on Form 10-Q for the period ended September 30, 2019.
10.25***	2019 Managed Services Statement of Work No. 1 effective October 1, 2019 between USCC Services, LLC and Amdocs Tethys Limited is hereby incorporated by reference to Exhibit 10.8 to U.S. Cellular's Quarterly Report on Form 10-Q for the period ended September 30, 2019.
10.26	Series 2017-VFN Note Purchase Agreement by and among USCC Receivables Funding LLC, as transferor, USCC Master Note Trust, as issuer, USCC Services, LLC, as Servicer, U.S. Cellular as guarantor, and Royal Bank of Canada, as administrative agent for owners of the notes, dated December 20, 2017, is hereby incorporated by reference to Exhibit 10.1 to U.S. Cellular's Form 8-K dated December 20, 2017.
10.27	Performance Guaranty and Parent Undertaking Agreement by U.S. Cellular in favor of the Guaranteed Parties defined therein, dated December 20, 2017, is hereby incorporated by reference to Exhibit 10.2 to U.S. Cellular's Form 8-K dated December 20, 2017.
10.28	Amended and Restated Trust Agreement between USCC Receivables Funding LLC, as transferor, and Wilmington Trust, National Association, as Trustee, is hereby incorporated by reference to Exhibit 10.3 to U.S. Cellular's Form 8-K dated December 20, 2017.
10.29*	Form of Retention Agreement for Steven T. Campbell and Jay M. Ellison, is hereby incorporated by reference to Exhibit 10.1 to U.S. Cellular's Current Report on Form 8-K dated May 1, 2018.
10.30*	Form of Letter Agreement Effective May 22, 2018, between U.S. Cellular and Deirdre C. Drake is hereby incorporated by reference to Exhibit 10.1 to U.S. Cellular's Current Report on Form 8-K dated May 22, 2018.
10.31*	Letter Agreement between U.S. Cellular and Douglas W. Chambers is hereby incorporated by reference to Exhibit 10.1 to U.S. Cellular's Current Report on Form 8-K/A dated May 21, 2019.
10.32***	Omnibus Amendment No. 1 to Master Indenture, Series 2017-VFN Indenture Supplement, Note Purchase Agreement, Receivables Purchase Agreement and Transfer and Servicing Agreement dated September 30, 2019, among USCC Master Note Trust, U.S. Bank National Association, as Indenture Trustee, USCC Services, LLC, USCC Receivables Funding LLC, USCC EIP LLC, and Royal Bank of Canada, as administrative agent for owners of the notes is hereby incorporated by reference to Exhibit 4.3 to U.S. Cellular's Quarterly Report on Form 10-Q for the period ended September 30, 2019.
10.33*	Amendment to Retention Agreement between USCC Services, LLC and Steven T. Campbell dated December 20, 2019.
10.34*	Amendment to Retention Agreement between USCC Services, LLC and Jay M. Ellison dated January 7, 2020.
13	Incorporated portions of 2019 Annual Report to Shareholders.
21	Subsidiaries of U.S. Cellular.
23.1	Consent of Independent Registered Public Accounting Firm—PricewaterhouseCoopers LLP.
23.2	Consent of Independent Registered Public Accounting Firm—Ernst & Young LLP.

31.1	Principal executive officer certification pursuant to Rule 13a-14 of the Securities Exchange Act of 1934.
31.2	Principal financial officer certification pursuant to Rule 13a-14 of the Securities Exchange Act of 1934.
32.1	Principal executive officer certification pursuant to Section 1350 of Chapter 63 of Title 18 of the United States Code.
32.2	Principal financial officer certification pursuant to Section 1350 of Chapter 63 of Title 18 of the United States Code.
101.INS	XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
104	Cover Page Interactive Data File - the cover page interactive data file does not appear in the Interactive Data File because its XBRL tags are embedded within the inline document.
*	Indicates a management contract or compensatory plan or arrangement.
**	Indicates a paper filing prior to the adoption of EDGAR.
***	Portions of this Exhibit have been omitted pursuant to Item 601(b)(10)(iv) of Regulation S-K promulgated under the Exchange Act.

Item 16. Form 10-K Summary

None.

LOS ANGELES SMSA LIMITED PARTNERSHIP
FINANCIAL STATEMENTS

U.S. Cellular owns a 5.5% limited partnership interest in the Los Angeles SMSA Limited Partnership, and accounts for such interest by the equity method. The partnership's financial statements were obtained by U.S. Cellular as a limited partner.

Report of Independent Registered Public Accounting Firm

To the Partners of Los Angeles SMSA Limited Partnership

Opinion on the Financial Statements

We have audited the accompanying balance sheets of Los Angeles SMSA Limited Partnership (the Partnership) as of December 31, 2019 and 2018, the related statements of income, changes in partners' capital and cash flows for each of the three years in the period ended December 31, 2019, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Partnership at December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019 in conformity with U.S. generally accepted accounting principles.

Adoption of New Accounting Standards

ASU No. 2016-02

As discussed in Note 2 to the financial statements, effective January 1, 2019, the Partnership changed its method of accounting for leases due to the adoption of Accounting Standards Update (ASU) No. 2016-02, Leases (Topic 842), and the related amendments, using the modified retrospective method.

ASU No. 2014-09

As discussed in Note 2 to the financial statements, effective January 1, 2018, the Partnership changed its method for recognizing revenue as a result of the adoption of ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606), and the amendments in ASUs 2015-14, 2016-08, 2016-10 and 2016-12 using the modified retrospective method.

Basis for Opinion

These financial statements are the responsibility of the Partnership's management. Our responsibility is to express an opinion on the Partnership's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Partnership 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 and in accordance with auditing standards generally accepted in the United States of America. 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 Partnership's auditor since 2014.

Orlando, Florida
February 25, 2020

Los Angeles SMSA Limited Partnership

Balance Sheets - As of December 31, 2019 and 2018

(Dollars in thousands)	2019	2018
ASSETS		
CURRENT ASSETS:		
Due from affiliate	**$ 469,318**	$ 256,812
Accounts receivable, net of allowances of $7,792 and $21,886	**375,920**	434,399
Prepaid expenses and other	**277,193**	203,571
Total current assets	**1,122,431**	894,782
PROPERTY, PLANT AND EQUIPMENT - NET	**1,908,893**	1,998,538
WIRELESS LICENSES	**2,075,448**	2,075,448
OPERATING LEASE RIGHT-OF-USE ASSETS	**876,219**	—
OTHER ASSETS - NET	**217,859**	432,483
TOTAL ASSETS	**$ 6,200,850**	$ 5,401,251
LIABILITIES AND PARTNERS' CAPITAL		
CURRENT LIABILITIES:		
Accounts payable and accrued liabilities	**$ 178,906**	$ 142,805
Contract liabilities and other	**183,091**	175,863
Financing obligation	**13,348**	13,185
Current operating lease liabilities	**124,856**	—
Deferred rent	**7,407**	13,347
Total current liabilities	**507,608**	345,200
LONG TERM LIABILITIES:		
Financing obligation	**110,392**	111,868
Non-current operating lease liabilities	**641,652**	—
Deferred rent	**78,108**	143,586
Other liabilities	**27,320**	29,264
Total long term liabilities	**857,472**	284,718
Total liabilities	**1,365,080**	629,918
PARTNERS' CAPITAL:		
General Partner's interest	**1,934,308**	1,908,533
Limited Partners' interest	**2,901,462**	2,862,800
Total partners' capital	**4,835,770**	4,771,333
TOTAL LIABILITIES AND PARTNERS' CAPITAL	**$ 6,200,850**	$ 5,401,251

See notes to financial statements.

Los Angeles SMSA Limited Partnership

Statements of Income - For the Years Ended December 31, 2019, 2018 and 2017

(Dollars in thousands)	**2019**	2018	2017
OPERATING REVENUES:			
Service revenues	**$ 3,853,965**	$ 3,766,062	$ 3,791,371
Equipment revenues	**1,091,380**	1,153,954	982,251
Other revenues	**360,907**	275,896	246,322
Total operating revenues	**5,306,252**	5,195,912	5,019,944
OPERATING EXPENSES:			
Cost of services (exclusive of depreciation)	**1,217,326**	1,115,475	1,107,614
Cost of equipment	**1,155,205**	1,212,952	1,174,858
Depreciation	**350,005**	369,874	355,696
Selling, general and administrative expense	**1,144,761**	1,095,048	1,168,978
Total operating expenses	**3,867,297**	3,793,349	3,807,146
OPERATING INCOME	**1,438,955**	1,402,563	1,212,798
OTHER (EXPENSE) INCOME:			
Interest income, net	**3,994**	13,332	2,857
Other (expense) income	**(22,012)**	2,702	1,631
Total other (expense) income	**(18,018)**	16,034	4,488
NET INCOME	**$ 1,420,937**	$ 1,418,597	$ 1,217,286
Allocation of Net Income:			
General Partner	**$ 568,375**	$ 567,439	$ 486,914
Limited Partners	**852,562**	851,158	730,372

See notes to financial statements.

Los Angeles SMSA Limited Partnership

Statements of Changes in Partners' Capital - For the Years Ended December 31, 2019, 2018 and 2017

(Dollars in thousands)

	General Partner	Limited Partners			
	AirTouch Cellular Inc.	AirTouch Cellular Inc.	Cellco Partnership	United States Cellular Investment Corporation of Los Angeles	Total Partners' Capital
BALANCE - January 1, 2017	**$ 1,734,722**	**$ 1,834,468**	**$ 529,090**	**$ 238,524**	**$ 4,336,804**
Distributions	(450,000)	(475,875)	(137,250)	(61,875)	(1,125,000)
Net income	486,914	514,912	148,509	66,951	1,217,286
BALANCE - December 31, 2017	**$ 1,771,636**	**$ 1,873,505**	**$ 540,349**	**$ 243,600**	**$ 4,429,090**
ASC 606 opening balance sheet adjustment	67,058	70,914	20,453	9,221	167,646
Distributions	(497,600)	(526,212)	(151,768)	(68,420)	(1,244,000)
Net income	567,439	600,067	173,069	78,022	1,418,597
BALANCE - December 31, 2018	**$ 1,908,533**	**$ 2,018,274**	**$ 582,103**	**$ 262,423**	**$ 4,771,333**
Distributions	(542,600)	(573,800)	(165,492)	(74,608)	(1,356,500)
Net income	568,375	601,057	173,353	78,152	1,420,937
BALANCE - December 31, 2019	**$ 1,934,308**	**$ 2,045,531**	**$ 589,964**	**$ 265,967**	**$ 4,835,770**

See notes to financial statements.

Los Angeles SMSA Limited Partnership

Statements of Cash Flows - For the Years Ended December 31, 2019, 2018 and 2017

(Dollars in Thousands)	**2019**	2018	2017
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income	**$ 1,420,937**	$ 1,418,597	$ 1,217,286
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation	**350,005**	369,874	355,696
Imputed interest on financing obligation	**11,792**	11,686	12,374
Provision for uncollectible accounts	**44,329**	43,847	56,505
Changes in operating assets and liabilities:			
Accounts receivable	**14,150**	(39,867)	(36,907)
Prepaid expenses and other	**(680,685)**	(614,263)	(388,907)
Accounts payable and accrued liabilities	**20,724**	(2,541)	(54,321)
Contract liabilities and other	**7,228**	25,715	14,531
Other net changes	**(79,885)**	31,672	2,524
Net cash provided by operating activities	**1,108,595**	1,244,720	1,178,781
CASH FLOWS FROM INVESTING ACTIVITIES:			
Capital expenditures	**(385,443)**	(575,351)	(434,350)
Fixed asset transfers out	**140,458**	130,228	15,648
Collections on deferred purchase price and purchased receivables	**—**	9,331	86,009
Collections on beneficial interest - net	**718,501**	483,924	229,330
Change in due from affiliate	**(212,506)**	(37,974)	63,008
Net cash provided by investing activities	**261,010**	10,158	(40,355)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Repayments of financing obligation	**(13,105)**	(10,878)	(13,426)
Distributions	**(1,356,500)**	(1,244,000)	(1,125,000)
Net cash used in financing activities	**(1,369,605)**	(1,254,878)	(1,138,426)
CHANGE IN CASH	**—**	—	—
CASH - Beginning of year	**—**	—	—
CASH - End of year	**$ —**	$ —	$ —
NONCASH TRANSACTIONS FROM OPERATING ACTIVITIES:			
Accruals for capital expenditures	**$ 28,379**	$ 13,004	$ 25,757

See notes to financial statements.

Los Angeles SMSA Limited Partnership

Notes to Financial Statements – For the Years Ended December 31, 2019, 2018 and 2017
(Dollars in Thousands)

1. ORGANIZATION AND MANAGEMENT

The principal activity of the Los Angeles SMSA Limited Partnership, a California Limited Partnership (Los Angeles SMSA) formed in 1984, is to provide cellular service in the Los Angeles metropolitan statistical area. Through March 2018, the financial statements included the accounts of the Los Angeles SMSA and Los Angeles Edge LLC, a wholly owned subsidiary of Los Angeles SMSA (collectively, the "Partnership"). Los Angeles Edge LLC was formed during 2015 and was a bankruptcy remote special purpose entity (SPE), created for the purpose of selling wireless device payment plan agreement receivables to third parties (see Wireless Device Payment Plans Note). The Los Angeles Edge LLC entity was dissolved on March 29, 2018 and as of this date the Partnership consists of only Los Angeles SMSA.

In accordance with the partnership agreement, AirTouch Cellular Inc., an affiliate of Cellco Partnership (Cellco), and general partner of the Partnership, is responsible for managing the operations of the Partnership.

The partners and their respective ownership percentages of the Partnership as of December 31, 2019 were as follows:

General Partner:	
AirTouch Cellular Inc.	40.0%
Limited Partners:	
AirTouch Cellular Inc.	42.3%
Cellco Partnership	12.2%
United States Cellular Investment Corporation of Los Angeles	5.5%

Cellco is an indirect, wholly-owned subsidiary of Verizon Communications Inc. (Verizon). Substantially all of the Partnership’s transactions represent transactions with, or processed by, Cellco and/or certain other affiliates (collectively, Verizon Wireless).

2. SIGNIFICANT ACCOUNTING POLICIES

Reclassification

Certain prior year amounts have been reclassified to conform to the current year presentation.

Use of estimates

The financial statements are prepared using U.S. generally accepted accounting principles (GAAP), which requires management to make estimates and assumptions that affect reported amounts and disclosures. Actual results could differ from those estimates.

Examples of significant estimates include: the allowance for uncollectible accounts, the recoverability of property, plant and equipment and long-lived assets, the incremental borrowing rate for the operating lease liability, beneficial interest associated with sold device payment plan agreement receivables, and fair values of financial instruments.

Revenue recognition

The Partnership earns revenue from contracts with customers, primarily by providing access to and usage of the Verizon Wireless telecommunications network and selling equipment. These revenues are accounted for under Accounting Standards Update (ASU) 2014-09, Revenue from Contracts with Customers (Topic 606), which the Partnership adopted on January 1, 2018 using the modified retrospective approach. This standard update, along with related subsequently issued updates, clarifies the principles for recognizing revenue and develops a common revenue standard for GAAP. The standard update also amended the guidance for the recognition of costs to obtain customer contracts such that incremental costs of obtaining customer contracts are deferred and amortized consistent with the transfer of the related good or service.

The Partnership also earns revenues that are not accounted for under Topic 606 from leasing arrangements (such as those from towers) and the interest on equipment financed under a device payment plan agreement when sold to the customer by an authorized agent.

Wireless services are offered through a variety of plans on a postpaid or prepaid basis. For wireless service, the Partnership recognizes revenue using an output method, either as the service allowance units are used or as time elapses, because it reflects the pattern by which the performance obligations are satisfied through the transfer of service to the customer. Monthly service is generally billed in advance, which results in a contract liability. See Revenue and Contract Costs Note for additional information. For postpaid plans where monthly usage exceeds the allowance, the overage usage represents options held by the customer for incremental services and the usage-based fee is recognized when the customer exercises the option (typically on a month-to-month basis).

Equipment revenue related to wireless devices and accessories is generally recognized when the products are delivered to and accepted by the customer, as this is when control passes to the customer. In addition to offering the sale of equipment on a standalone basis, Verizon Wireless has two primary offerings through which customers pay for a wireless device in connection with a service contract: fixed-term plans and device payment plans.

Under a fixed-term plan, the customer is sold the wireless device without any upfront charge or at a discounted price in exchange for entering into a fixed-term service contract (typically for a term of 24 months or less). This plan is currently only offered to business customers.

Under a device payment plan, the customer is sold the wireless device in exchange for a non-interest bearing installment note, which is repaid by the customer, typically over a 24-month term, and concurrently enters into a month-to-month contract for wireless service. Customers may be offered certain promotions that provide billing credits applied over a specified term, contingent upon the customer maintaining service. The credits are included in the transaction price, which are allocated to the performance obligations based on their relative selling price, and are recognized when earned.

A financing component exists in both fixed-term plans and device payment plans because the timing of the payment for the device, which occurs over the contract term, differs from the satisfaction of the performance obligation, which occurs at contract inception upon transfer of the device to the customer. The significance of the financing component inherent in the fixed-term and device payment plan receivables is periodically assessed at the contract level, based on qualitative and quantitative considerations, related to customer classes. These considerations include assessing the commercial objective of plans, the term and duration of financing provided, interest rates prevailing in the marketplace, and credit risks of customer classes, all of which impact the selection of appropriate discount rates. Based on current facts and circumstances, the financing component in existing direct channel device payments and fixed-term contracts with customers is not significant and therefore is not accounted for separately. See Device Payment Note for additional information on the interest on equipment financed on a device payment plan agreement when sold to the customer by an authorized agent in the indirect channel.

Roaming revenue reflects service revenue earned by the Partnership when customers not associated with the Partnership operate in the service area of the Partnership and use the Partnership’s network. The roaming rates with third-party carriers are based on agreements with such carriers. The roaming rates and methodology to determine roaming revenues charged by the Partnership to Verizon Wireless are established by Verizon Wireless and reviewed on a periodic basis and may not reflect current market rates (see Transactions with Affiliates and Related Parties Note).

Other revenues include non-service revenues such as regulatory fees, cost recovery surcharges, revenues associated with Verizon Wireless's device protection package, and interest on equipment financed under a device payment plan agreement when sold to the customer by an authorized agent. The Partnership recognizes taxes imposed by governmental authorities on revenue-producing transactions between the Partnership and its customers, which are passed through to the customers, on a net basis.

Wireless contracts

Total contract revenue, which represents the transaction price for service and equipment, is allocated between service and equipment revenue based on their estimated standalone selling prices. The standalone selling price of the device or accessory is estimated to be its retail price, excluding subsidies or conditional purchase discounts. The standalone selling price of service is estimated to be the price that is offered to customers on month-to-month contracts that can be cancelled at any time without penalty (i.e., when there is no fixed-term for service) or when service is procured without the concurrent purchase of a device. In addition, the Partnership also assesses whether the service term is impacted by certain legally enforceable rights and obligations in the contract with customers, such as penalties that a customer would have to pay to early terminate a fixed-term contract or billing credits that would cease if the month-to-month wireless service is canceled. The assessment of these legally enforceable rights and obligations involves judgment and impacts the determination of the transaction price and related disclosures.

From time to time, customers on device payment plans may be offered certain promotions that provide the right to upgrade to a new device after paying down a certain specified portion of the required device payment plan agreement amount and trading in their device in good working order. This trade-in right is accounted for as a guarantee obligation. The full amount of the trade-in right's fair value is recognized as a guarantee liability and results in a reduction to the revenue recognized upon the sale of the device. The guarantee liability was insignificant at December 31, 2019 and 2018. The total transaction price is reduced by the guarantee, which is accounted for outside the scope of Topic 606, and the remaining transaction price is allocated between the performance obligations within the contract.

Fixed-term plans generally include the sale of a wireless device at subsidized prices. This results in the creation of a contract asset at the time of sale, which represents the recognition of equipment revenue in excess of amounts billed.

For device payment plans, billing credits are accounted for as consideration payable to a customer and are included in the determination of total transaction price, resulting in a contract liability.

Verizon Wireless may provide a right of return on products and services for a short time period after a sale. These rights are accounted for as variable consideration when determining the transaction price, and accordingly the Partnership recognizes revenue based on the estimated amount to which the Partnership expects to be entitled after considering expected returns. Returns and credits are estimated at contract inception and updated at the end of each reporting period as additional information becomes available. Verizon Wireless also may provide credits or incentives on products and services for contracts with resellers, which are accounted for as variable consideration when estimating the amount of revenue to recognize. These amounts are insignificant to the financial statements.

For certain offers that also include third-party service providers, the Partnership evaluates whether the Partnership is acting as the principal or as the agent with respect to the goods or services provided to the customer. This principal versus agent assessment involves judgement and focuses on whether the facts and circumstances of the arrangement indicate that the goods or services were controlled by the Partnership prior to transferring them to the customer. To evaluate if the Partnership has control, various factors are considered including whether the Partnership is primarily responsible for fulfillment, bears risk of loss and has discretion over pricing.

Operating expenses

Operating expenses include expenses directly attributable to the Partnership, as well as an allocation of selling, general and administrative, and other operating expenses incurred by Verizon on behalf of the Partnership. Employees of Verizon provide services on behalf of the Partnership. These employees are not employees of the Partnership, therefore, operating expenses include allocated charges of salary and employee benefit costs for the services provided to the Partnership. Verizon Wireless believes such allocations, which are principally based on total subscribers, are calculated in accordance with the Partnership agreement and are determined using a reasonable method of allocating such costs (see Transactions with Affiliates and Related Parties Note).

Cost of roaming, included in cost of services, reflects costs incurred by the Partnership when customers associated with the Partnership operate and use a network in a service area not associated with the Partnership. The roaming rates with third-party carriers are based on agreements with such carriers. The roaming rates and methodology to determine roaming costs charged to the Partnership by Verizon Wireless are established by Verizon Wireless and reviewed on a periodic basis and may not reflect current market rates (see Transactions with Affiliates and Related Parties Note).

Cost of equipment is recorded upon sale of the related equipment at Verizon Wireless's cost basis. Inventory is owned by Verizon Wireless until the moment of sale and is not recorded in the financial statements of the Partnership.

Maintenance and repairs

The cost of maintenance and repairs, including the cost of replacing minor items not constituting substantial betterments, is charged principally to cost of services as these costs are incurred.

Advertising costs

Costs for advertising products and services, as well as other promotional and sponsorship costs, are allocated from Verizon Wireless and are charged to selling, general and administrative expenses in the periods in which they are incurred (see Transactions with Affiliates and Related Parties Note).

Income taxes

The Partnership is treated as a pass-through entity for income tax purposes and therefore, is not subject to federal, state or local income taxes. Accordingly, no provision has been recorded for income taxes in the Partnership's financial statements. The results of operations, including taxable income, gains, losses, deductions and credits, are allocated to and reflected on the income tax returns of the respective partners.

The Partnership files partnership income tax returns in the U.S. federal jurisdiction and various state and local jurisdictions. The Partnership remains subject to examination by tax authorities for tax years as early as 2016. It is reasonably possible that various current tax examinations could conclude or require reevaluations of the Partnership's tax positions during this period. An estimate of the range of the possible change cannot be made until these tax matters are further developed or resolved.

Due to/from affiliate

Due to/from affiliate principally represents the Partnership's cash position with Verizon. Verizon manages, on behalf of the Partnership, all operating, investing and financing activities of the Partnership. As such, the change in due to/from affiliate is reflected as a financing activity or an investing activity, respectively, in the statement of cash flows, based on the net position. In addition, cost of equipment and other operating expenses incurred by Verizon Wireless on behalf of the Partnership, as well as property, plant and equipment and wireless license transactions with Verizon Wireless, are charged to the Partnership through this account.

Interest income on due from affiliate and interest expense on due to affiliate are based on the short-term Applicable Federal Rate, which was approximately 2.1% and 2.3% for the years ended December 31, 2019 and 2018. In previous years, interest expense on due to affiliate balances was based on Verizon Wireless's average cost of borrowing from Verizon, which was approximately 4.7% in 2017. Interest income on due from affiliate was based on the short term Applicable Federal Rate which was 1.2% in 2017. Included in interest income, net is interest income of $14,818, $12,666, and $5,928, for the years ended December 31, 2019, 2018 and 2017, respectively, related to due from affiliate.

Allowance for uncollectible accounts

Accounts receivable are recorded in the financial statements at cost, net of an allowance for credit losses, with the exception of indirect-channel device payment plan loans. Allowances for uncollectible accounts receivable, including direct-channel device payment plan agreement receivables, are maintained for estimated losses resulting from the failure or inability of customers to make required payments. Indirect-channel device payment loans are considered financial instruments and are initially recorded at fair value net of imputed interest, and credit losses are recorded as incurred. Loan balances are assessed annually for impairment and an allowance is recorded if the loan is considered impaired.

The allowance for uncollectible accounts receivable is based on management's assessment of the collectability of specific customer accounts and includes consideration of the credit worthiness and financial condition of those customers. An allowance is recorded to reduce the receivables to the amount that is reasonably believed to be collectible.

Similar to traditional service revenue accounting treatment, direct-channel device payment plan agreement bad debt expense is recorded based on an estimate of the percentage of equipment revenue that will not be collected. This estimate is based on a number of factors, including historical write-off experience, credit quality of the customer base and other factors such as macroeconomic conditions. The aging of accounts with device payment plan agreement receivables is monitored and account balances are written-off if collection efforts are unsuccessful and future collection is unlikely.

Property, plant and equipment, and depreciation

Property, plant and equipment is recorded at cost. Property, plant and equipment is depreciated on a straight-line basis.

Leasehold improvements are amortized over the shorter of the estimated life of the improvement or the remaining term of the related lease, calculated from the time the asset was placed in service.

When depreciable assets are retired or otherwise disposed of, the related cost and accumulated depreciation are deducted from the property, plant and equipment accounts and any gains or losses on disposition are recognized in income. Transfers of property, plant and equipment between the Partnership and Verizon Wireless are recorded at net book value on the date of the transfer with an offsetting entry included in due from affiliate.

Interest expense, if any, associated with the construction of network-related assets is capitalized. Capitalized interest is reported as a reduction in interest expense and depreciated as part of the cost of the network-related assets.

Verizon Wireless and the Partnership continue to assess the estimated useful lives of property, plant and equipment and, though the timing and extent of current deployment plans are subject to ongoing analysis and modification, the current estimates of useful lives are believed to be reasonable.

Other assets

Other assets, net primarily includes beneficial interest and long-term device payment plan agreement receivables, net of allowances of $6,439 and $13,142 at December 31, 2019 and 2018, respectively.

Impairment

All long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. If any indications of impairment are present, recoverability would be tested by comparing the carrying amount of the asset group to the net undiscounted cash flows expected to be generated from the asset group. If those net undiscounted cash flows do not exceed the carrying amount, the next step would be to determine the fair value of the asset and record an impairment, if any. The useful-life determinations for these long-lived assets are re-evaluated each year to determine whether events and circumstances warrant a revision to their remaining useful lives.

Wireless licenses

Wireless licenses provide the Partnership with the exclusive right to utilize the designated radio frequency spectrum to provide wireless communications services. In addition, Verizon Wireless maintains wireless licenses that provide the Partnership with the right to utilize Verizon Wireless's designated radio frequency spectrum to provide wireless communications services (see Transactions with Related Parties and Affiliates Note). While licenses are issued for a fixed time, generally ten years, such licenses are subject to renewal by the Federal Communications Commission (FCC). License renewals, which are managed by Verizon Wireless, have historically occurred routinely and at nominal cost. Moreover, Verizon Wireless determined that there are currently no legal, regulatory, contractual, competitive, economic or other factors that limit the useful lives of the wireless licenses. As a result, wireless licenses are treated as an indefinite-lived intangible asset. The useful life determination for wireless licenses is re-evaluated each year to determine whether events and circumstances continue to support an indefinite useful life.

The average remaining renewal period of the Partnership's wireless license portfolio was 6.6 years as of December 31, 2019.

Interest expense, if any, incurred while qualifying activities are performed to ready wireless licenses for their intended use is capitalized as part of wireless licenses. The capitalization period ends when the development is discontinued or substantially complete and the license is ready for its intended use.

Wireless license balances are tested for potential impairment annually or more frequently if impairment indicators are present. When evaluating wireless licenses for impairment, Verizon Wireless and the Partnership (to the extent it owns more than one license) aggregate wireless licenses into one single unit of accounting, since they are utilized on an integrated basis. Verizon Wireless allocates to the Partnership, based on a reasonable methodology, any impairment loss recognized by Verizon Wireless for licenses included in Verizon Wireless's national footprint.

In 2019, and 2017 Verizon Wireless performed a qualitative impairment assessment to determine whether it is more likely than not that the fair value of its aggregate wireless licenses was less than the carrying amount. As part of the assessment, several qualitative factors were considered, including market transactions, the business enterprise value of Verizon Wireless, macroeconomic conditions (including changes in interest rates and discount rates), industry and market considerations (including industry revenue and EBITDA (earnings before interest, taxes, depreciation and amortization) margin projections), the recent and projected financial performance of Verizon Wireless, as well as other factors.

In 2018, Verizon Wireless performed a quantitative impairment assessment for its aggregate wireless licenses, which consisted of comparing the estimated fair value of its aggregate wireless licenses to the aggregated carrying amount as of the test date.

Verizon Wireless's impairment assessments in 2019, 2018 and 2017 indicated that the fair value of its wireless licenses exceeded their carrying value and, therefore did not result in an impairment.

In 2019, 2018 and 2017, a qualitative impairment assessment similar to that described for Verizon Wireless was performed for the Partnership's aggregate wireless licenses which indicated that it is more likely than not that the fair value of the Partnership's wireless licenses remained above the carrying value and, therefore, did not result in an impairment.

Financial instruments

The carrying value of the Partnership's wireless device payment plan agreement receivables and beneficial interest approximates fair value.

Fair value measurements

Fair value of financial and non-financial assets and liabilities is defined as an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. The three-tier hierarchy for inputs used in measuring fair value, which prioritizes the inputs used in the methodologies of measuring fair value for assets and liabilities, is as follows:

Level 1 - Quoted prices in active markets for identical assets or liabilities

Level 2 - Observable inputs, other than quoted prices, in active markets for identical assets and liabilities

Level 3 - No observable pricing inputs in the market

Financial assets and financial liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurements. The assessment of the significance of a particular input to the fair value measurements requires judgment, and may affect the valuation of the assets and liabilities being measured and their categorization within the fair value hierarchy. As of December 31, 2019 and 2018, the Partnership did not have any assets or liabilities measured at fair value on a recurring basis.

Distributions

The Partnership is required to make distributions to its partners based upon the Partnership's operating results, due to/from affiliate status and financing needs, as determined by the General Partner at the date of the distribution, which are typically made in arrears.

Recently adopted accounting standards

The following Accounting Standard Updates (ASUs) were issued by the Financial Accounting Standards Board (FASB), and have been recently adopted by the Partnership.

Description	Date of Adoption	Effect on Financial Statements
ASU 2016-02, ASU 2018-01, ASU 2018-10, ASU 2018-11, ASU 2018-20 and ASU 2019-01, Leases (Topic 842)		
The FASB issued Topic 842 requiring entities to recognize assets and liabilities on the balance sheet for all leases, with certain exceptions. In addition, Topic 842 enables users of financial statements to further understand the amount, timing and uncertainty of cash flows arising from leases. Topic 842 allowed for a modified retrospective application and was early adopted as of the first quarter of 2019. Entities were required to apply the modified retrospective approach: (1) retrospectively to each prior reporting period presented in the financial statements with the cumulative-effect adjustment recognized at the beginning of the earliest comparative period presented; or (2) retrospectively at the beginning of the period of adoption (January 1, 2019) through a cumulative-effect adjustment. The modified retrospective approach includes a number of optional practical expedients that entities may elect to apply.	1/1/2019	The Partnership early adopted Topic 842 beginning on January 1, 2019, using the modified retrospective approach. The adoption of the standard had a significant impact on the balance sheet due to the recognition of operating lease liabilities, along with operating lease right-of-use-assets. The Partnership has recognized and measured leases without revising comparative period information or disclosure.

The effect of the changes made to the balance sheet for the adoption of Topic 842 was as follows:

	At December 31, 2018	Adjustments due to Topic 842	At January 1, 2019
Prepaid expenses and other	$ 203,571	$ (14,410)	$ 189,161
Operating lease right-of-use asset	—	783,217	783,217
Other assets - net	432,483	(66,766)	365,717
Current operating lease liabilities	—	87,958	87,958
Deferred rent	13,347	(4,987)	8,360
Non-current operating lease liabilities	—	676,887	676,887
Deferred rent	143,586	(57,690)	85,896
Other liabilities	29,264	(127)	29,137

In addition to the increase to the operating lease liabilities and right-of-use assets, Topic 842 also resulted in reclassifying the presentation of prepaid and deferred rent related to operating leases to operating lease right-of-use assets. The operating lease right-of-use assets amount also includes the balance of any prepaid lease payments, unamortized initial direct costs, and lease incentives.

The Partnership elected the package of practical expedients permitted under the transition guidance within the new standard. Accordingly, the Partnership has adopted these practical expedients and did not reassess: (1) whether an expired or existing contract is a lease or contains an embedded lease; (2) lease classification of an expired or existing lease; or (3) capitalization of initial direct costs for an expired or existing lease. In addition, the Partnership has elected the land easement transition practical expedient, and did not reassess whether an existing or expired land easement is a lease or contains a lease if it has not historically been accounted for as a lease.

The Partnership leases network equipment, including towers, distributed antenna systems, and small cells, real estate, connectivity mediums, which include dark fiber; equipment; and other various types of assets for use in operations under operating leases. The Partnership assesses whether an arrangement is a lease or contains a lease at inception. For arrangements considered leases or that contain a lease that is accounted for separately, the Partnership determines the classification and initial measurement of the right-of-use asset and lease liability at the lease commencement date, which is the date that the underlying asset becomes available for use.

For operating leases, the Partnership recognizes a right-of-use asset, which represents the right to use the underlying asset for the lease term, and a lease liability, which represents the present value of an obligation to make payments arising over the lease term. The present value of the lease payments is calculated using the incremental borrowing rate. The incremental borrowing rate is determined using a portfolio approach based on the rate of interest that Verizon would have to pay to borrow an amount equal to the lease payments on a collateralized basis over a similar term. Management uses Verizon's unsecured borrowing rate given that Verizon manages, on behalf of the Partnership, all operating, investing, and financing activities of the Partnership and risk-adjusts that rate to approximate a collateralized rate, which is updated on an annual basis.

In those circumstances where the Partnership is the lessee, the election was made to account for non-lease components associated with leases (e.g., common area maintenance costs) and lease components as a single lease component for substantially all of the asset classes.

Rent expense for operating leases is recognized on a straight-line basis over the term of the lease and is included in either cost of services or selling, general and administrative expenses in the statements of income, based on the use of the facility or equipment on which rent is being paid. Variable rent payments related to operating leases are expensed in the period incurred. The variable lease payments consist of payments dependent on various external indicators, including real estate taxes, common area maintenance charges and utility usage.

Operating leases with a term of 12 months or less are not recorded on the balance sheet; the Partnership recognizes rent expense for these leases on a straight-line basis over the lease term.

See the Leasing Arrangements Note for additional information related to leases, including disclosures required under Topic 842.

Recently issued accounting standards

The following ASU has recently been issued by the FASB.

Description	Date Adoption Required	Effect on Financial Statements
ASU 2016-13, ASU 2018-19, ASU 2019-04, ASU 2019-05, Financial Instruments - Credit Losses (Topic 326)		
In June 2016, the FASB issued this standard update which requires certain financial assets be measured at amortized cost net of an allowance for estimated credit losses such that the net receivable represents the present value of expected cash collection. In addition, this standard update requires that certain financial assets be measured at amortized cost reflecting an allowance for estimated credit losses expected to occur over the life of the assets. The estimate of credit losses must be based on all relevant information including historical information, current conditions and reasonable and supportable forecasts that affect the collectability of the amounts. An entity will apply the update through a cumulative effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is effective (January 1, 2023). A prospective transition approach is required for debt securities for which an other-than-temporary impairment has been recognized before the effective date. Early adoption of this standard is permitted.	1/1/2023	Over the course of 2019, a cross-functional coordinated team has been evaluating the requirements and scoping the possible impacts that this standard update will have on various financial assets, which is expected to include, but is not limited to, the Partnership's device payment plan agreement receivables, beneficial interest, service receivables and contract assets. Although the evaluation of the standard update has not yet been finalized, the Partnership does not currently expect the impact of this standard update to be significant to the financial statements. The Partnership anticipates any impact will be primarily related to certain device payment plan agreement receivables and beneficial interest.

Subsequent events

Events subsequent to December 31, 2019 have been evaluated through February 25, 2020, the date the financial statements were available to be issued.

3. REVENUE AND CONTRACT COSTS

The Partnership earns revenue from contracts with customers, primarily through the provision of telecommunications and other services and through the sale of wireless equipment. The Partnership accounts for these revenues under Topic 606 which was early adopted on January 1, 2018, using the modified retrospective approach. Revenue is disaggregated on the statements of income by products and services, which is viewed as the relevant categorization for the Partnership. There are also revenues earned that are not accounted for under Topic 606, including from leasing arrangements (such as those for towers) and the interest on equipment financed on a device payment plan agreement when sold to the customer by an authorized agent. Revenue from arrangements that were not accounted for under Topic 606 were insignificant to the financial statements for the years ended December 31, 2019 and 2018.

The Partnership applied the new revenue recognition standard to customer contracts not completed at the date of initial adoption. For incomplete contracts that were modified before the date of adoption, the Partnership elected to use the practical expedient available under the modified retrospective method, which allows aggregating the effect of all modifications when identifying satisfied and unsatisfied performance obligations, determining the transaction price and allocating transaction price to the satisfied and unsatisfied performance obligations for the modified contract at transition. Results for reporting periods beginning after January 1, 2018 are presented under Topic 606, while amounts reported for prior periods have not been adjusted and continue to be reported under accounting standards in effect for those periods. Results for reporting periods beginning after January 1, 2018 are presented under Topic 606, while amounts reported for prior periods have not been adjusted and continue to be reported under accounting standards in effect for those periods.

Prior to the adoption of Topic 606, the Partnership was required to limit the revenue recognized when a wireless device was sold to the amount of consideration that was not contingent on the provision of future services, which was typically limited to the amount of consideration received from the customer at the time of sale.

Under Topic 606, the total consideration in the contract is allocated between wireless equipment and service based on their relative standalone selling prices. This change primarily impacts our arrangements that include sales of wireless devices at subsidized prices in conjunction with a fixed-term plan, also known as the subsidy model, for service. Accordingly, under Topic 606, generally more equipment revenue is recognized upon sale of the equipment to the customer and less service revenue is recognized over the contract term than was previously recognized under the prior "Revenue Recognition" (Topic 605) standard. At the time the equipment is sold, this allocation results in the recognition of a contract asset equal to the difference between the amount of revenue recognized and the amount of consideration received from the customer. Verizon Wireless only offers new fixed-term plans with subsidized equipment pricing to business customers.

Topic 606 also requires the deferral of incremental costs incurred to obtain a customer contract, which are then amortized to expense, as a component of Selling, general and administrative expense, over the respective periods of expected benefit. As a result, a significant amount of sales commission costs, which were historically expensed as incurred under previous accounting, relating to contracts to provide wireless services, are now deferred and amortized under Topic 606.

Finally, under Topic 605, at the time of the sale of a device, risk adjusted interest is imputed on the device payment plan agreement receivables. The imputed interest is recorded as a reduction to the related accounts receivable and interest income was recognized over the financed device payment term. Under Topic 606, while there continues to be a financing component in both the fixed-term plans and device payment plans, also known as the installment model. This financing component for customer classes in the direct channels for wireless devices is not significant and therefore interest is no longer imputed for these contracts. This change results in additional revenue recognized upon the sale of wireless devices and no interest income recognized over the device payment term.

A reconciliation of the adjustments from the adoption of Topic 606 relative to Topic 605 on certain impacted financial statement line items in the statements of income for the year ended December 31, 2018 are as follows:

	As reported	Balances without adoption of Topic 606	Adjustments
OPERATING REVENUE			
Service revenue	$ 3,766,062	$ 3,818,424	$ (52,362)
Equipment revenue	1,153,954	1,060,106	93,848
Other	275,896	278,334	(2,438)
Total Operating Revenues	5,195,912	5,156,864	39,048
OPERATING EXPENSES			
Cost of equipment	1,212,952	1,206,710	6,242
Selling, general and administrative	1,095,048	1,159,066	(64,018)
NET INCOME	$ 1,418,597	$ 1,321,773	$ 96,824

Remaining performance obligations

When allocating the total contract transaction price to identified performance obligations, a portion of the total transaction price may relate to service performance obligations which were not satisfied or are partially satisfied as of the end of the reporting period. Below we disclose information relating to these unsatisfied performance obligations. The Partnership has elected to apply certain practical expedients available under Topic 606, including the option to exclude the expected revenues arising from unsatisfied performance obligations related to contracts that have an original expected duration of one year or less, which primarily relate to certain month-to-month service contracts.

Additionally, certain contracts provide customers the option to purchase additional services. The fee related to the additional services is recognized when the customer exercises the option (typically on a month-to-month basis).

Customer contracts are generally either month-to-month and cancellable at any time (typically under a device payment plan) or contain terms ranging from greater than one month to up to two years (typically under a fixed-term plan). Additionally, customers may incur charges based on usage or additional optional services in conjunction with entering into a contract that can be cancelled at any time and therefore are not included in the transaction price. When a service contract is longer than one month, the service contract term will generally be two years or less.

The customers also include other telecommunications companies who utilize Verizon Wireless's network to resell wireless service to their respective end customers. Reseller arrangements occur on a month-to-month basis or include a stated contract term, which generally extends longer than two years. Arrangements with a stated contract term generally include an annual minimum revenue commitment over the term of the contract for which revenues will be recognized in future periods.

Accounts receivable and contract balances

The timing of revenue recognition may differ from the time of billing to customers. Receivables presented in the balance sheet represent an unconditional right to consideration. Contract balances represent amounts from an arrangement when either the performance obligation has been satisfied by transferring goods and/or services to the customer in advance of receiving all or partial consideration for such goods and/or services from the customer, or the customer has made payment in advance of obtaining control of the goods and/or services promised to the customer in the contract.

Contract assets primarily relate to rights to consideration for goods and/or services provided to the customers but for which there is not an unconditional right at the reporting date. Under a fixed-term plan, the total contract revenue is allocated between wireless services and equipment revenues, as discussed above. In conjunction with these arrangements, a contract asset is created, which represents the difference between the amount of equipment revenue recognized upon sale and the amount of consideration received from the customer. The contract asset is recognized as accounts receivable as wireless services are provided and billed. The right to bill the customer is obtained as service is provided over time, which results in the right to the payment being unconditional. The contract asset balances are presented in the balance sheet as prepaid expenses and other, and other assets - net. Contract assets are assessed for impairment on an annual basis and an impairment charge is recognized to the extent the carrying amount is not recoverable. The impairment charge related to contract assets was insignificant for the years ended December 31, 2019 and 2018. Increases in the contract asset balances were primarily due to new contracts and increases in sales promotions recognized upfront, driven by customer activity related to wireless services, while decreases were due to reclassifications to accounts receivable due to billings on the existing contracts and insignificant impairment charges.

Contract liabilities arise when customers are billed and consideration is received in advance of providing the goods and/or services promised in the contract. The majority of the contract liability at each year end is recognized during the following year as these contract liabilities primarily relate to advanced billing of fixed monthly fees for service that are recognized within the following month when services are provided to the customer. The contract liability balances are presented in the balance sheet as contract liabilities and other, and other liabilities. Increases in contract liabilities were primarily due to increases in sales promotions recognized over time and upfront fees, as well as increases in deferred revenue related to advanced billings, while decreases in contract liabilities were primarily due to the satisfaction of performance obligations related to wireless services.

The balance of receivables from contracts with customers, contract assets and contract liabilities recorded in the balance sheet were as follows:

	At December 31, 2019	At December 31, 2018	At January 1, 2018
Receivables(1)	$ 284,102	$ 206,856	$ 211,388
Device payment plan agreement receivables(2)	101,466	162,619	1,678
Contract assets	38,358	41,193	46,964
Contract liabilities	190,886	178,905	148,797

(1) Balances do not include receivables related to the following contracts: leasing arrangements (such as towers) and the interest on equipment financed on a device payment plan agreement when sold to the customer by an authorized agent.

(2) Included in device payment plan agreement receivables presented in Device Payment Plans Note. Balances do not include receivables related to contracts completed prior to January 1, 2018 and receivables derived from the sale of equipment on a device payment plan through an authorized agent.

Contract costs

As discussed in the Significant Accounting Policies Note, Topic 606 requires the recognition of an asset for incremental costs to obtain a customer contract, which is then amortized to expense, over the respective period of expected benefit. The Partnership recognizes a contract asset for incremental commission costs paid to Verizon Wireless personnel and agents in conjunction with obtaining customer contracts. The costs are only deferred when it is determined the commissions are incremental costs that would not have been incurred absent the customer contract and are expected to be recovered. Costs to obtain a contract are amortized and recorded ratably as commission expense over the period representing the transfer of goods or services to which the assets relate. Costs to obtain contracts are amortized over the customers' estimated device upgrade cycle of two to three years, as such costs are typically incurred each time a customer upgrades their equipment.

The amortization periods for the costs incurred to obtain a customer contract are determined at a portfolio level due to the similarities within these customer contract portfolios.

Other costs, such as general costs or costs related to past performance obligations, are expensed as incurred.

Deferred contract costs are classified as current or non-current within prepaid expenses and other, and other assets - net, respectively. The balances of deferred contract costs as of December 31, 2019 and 2018, included in the balance sheet were as follows:

		2019		2018
Assets				
Prepaid expenses	**$**	**116,807**	$	99,062
Other assets - net		**67,117**		70,062
Total	**$**	**183,924**	$	169,124

For the years ended December 31, 2019 and 2018, the Partnership recognized expense of $128,593 and $97,782, respectively, associated with the amortization of deferred contract costs, within selling, general and administrative expenses in the statements of income.

Deferred contract costs are assessed for impairment on an annual basis. An impairment charge is recognized to the extent the carrying amount of a deferred cost exceeds the remaining amount of consideration expected to be received in exchange for the goods and services related to the cost, less the expected costs related directly to providing those goods and services that have not yet been recognized as expenses. There have been no impairment charges recognized for the year ended December 31, 2019 and 2018.

4. WIRELESS DEVICE PAYMENT PLANS

Under the Verizon Wireless device payment program, eligible customers can purchase wireless devices under a device payment plan agreement. Customers that activate service on devices purchased under the device payment program pay lower service fees as compared to those under fixed-term service plans, and their device payment plan charge is included on their wireless monthly bill. Verizon Wireless only offers fixed-term plans to business customers.

Wireless device payment plan agreement receivables

The following table displays device payment plan agreement receivables, net, that are recognized in the accompanying balance sheets as of December 31, 2019 and 2018.

		2019		2018
Device payment plan agreement receivables, gross	**$**	**185,173**	$	332,680
Unamortized imputed interest		**(7,893)**		(7,196)
Device payment plan agreement receivables, net of unamortized imputed interest		**177,280**		325,484
Allowance for credit losses		**(7,674)**		(24,869)
Device payment plan agreement receivables, net	**$**	**169,606**	$	300,615
Classified on the balance sheets:				
Accounts receivable, net	**$**	**95,441**	$	159,289
Other assets		**74,165**		141,326
Device payment plan agreement receivables, net	**$**	**169,606**	$	300,615

Certain promotions are offered that allow a customer to trade in their owned device in connection with the purchase of a new device. Under these types of promotions, the customer receives a credit for the value of the trade-in device. In addition, the customer may be provided with additional future credits that will be applied against the customer's monthly bill as long as service is maintained. A liability is recognized for the customer's right to trade-in the device measured at fair value, which is determined by considering several factors, including the weighted-average selling prices obtained in recent resales of similar devices eligible for trade-in. Future credits are recognized when earned by the customer. Device payment plan agreement receivables, net does not reflect the trade-in device liability. At December 31, 2019 and 2018, the amount of the trade-in liability was insignificant to the financial statements.

For indirect channel contracts with customers, risk adjusted interest is imputed on the device payment plan agreement receivables. The imputed interest is recorded as a reduction to the related accounts receivable. Interest income, which is included within other revenue in the statements of income, is recognized over the financed device payment term. See Revenue and Contract Costs Note for additional information on financing considerations with respect to direct channel contracts with customers.

When originating device payment plan agreements for consumer customers, Verizon Wireless uses internal and external data sources to create a credit risk score to measure the credit quality of a customer and to determine eligibility for the device payment program. If a customer is either new to Verizon Wireless or has 45 days or less of customer tenure with Verizon Wireless, the credit decision process relies more heavily on external data sources. If the customer has more than 45 days of customer tenure with Verizon Wireless (an existing customer), the credit decision process relies on a combination of internal and external data sources. External data sources include obtaining a credit report from a national consumer credit reporting agency, if available. Verizon Wireless uses its internal data and/or credit data obtained from the credit reporting agencies to create a custom credit risk score. The custom credit risk score is generated automatically (except with respect to a small number of applications where the information needs manual intervention) from the applicant's credit data using Verizon Wireless's proprietary custom credit models, which are empirically derived and demonstrably and statistically sound. The credit risk score measures the likelihood that the potential customer will become severely delinquent and be disconnected for non-payment. For a small portion of new customer applications, a traditional credit report is not available from one of the national credit reporting agencies because the potential customer does not have sufficient credit history. In those instances, alternative credit data is used for the risk assessment.

Based on the custom credit risk score, Verizon Wireless assigns each customer to a credit class, each of which has specified offers of credit, including an account level spending limit and either a maximum amount of credit allowed per device or a required down payment percentage. During the fourth quarter of 2018, Verizon Wireless moved all consumer customers, new and existing, from a required down payment percentage, between zero and 100%, to a maximum amount of credit per device.

Subsequent to origination, the delinquency and write-off experience is monitored as key credit quality indicators for the portfolio of device payment plan agreement receivables and fixed-term service plans. The extent of collection efforts with respect to a particular customer are based on the results of proprietary custom empirically derived internal behavioral-scoring models that analyze the customer's past performance to predict the likelihood of the customer falling further delinquent. These customer-scoring models assess a number of variables, including origination characteristics, customer account history and payment patterns. Based on the score derived from these models, accounts are grouped by risk category to determine the collection strategy to be applied to such accounts. Collection performance results and the credit quality of device payment plan agreement receivables are continuously monitored based on a variety of metrics, including aging. An account is considered to be delinquent and in default status if there are unpaid charges remaining on the account on the day after the bill's due date.

At December 31, 2019 and 2018, the balance and aging of the device payment plan agreement receivables on a gross basis was as follows:

		2019		2018
Unbilled	**$**	**172,049**	$	317,307
Billed:				
Current		**10,605**		12,270
Past due		**2,519**		3,103
Device payment plan agreement receivables, gross	**$**	**185,173**	$	332,680

Activity in the allowance for credit losses for the device payment plan agreement receivables was as follows:

		2019		2018
Balance at January 1	**$**	**24,869**	$	33,897
Provision for uncollectible accounts		**21,086**		23,932
Write-offs		**(20,941)**		(21,035)
Allowance related to receivables sold		**(16,259)**		(16,803)
Other		**(1,081)**		4,878
Balance at December 31	**$**	**7,674**	$	24,869

Receivables purchase agreement

In 2015 and 2016, Verizon Wireless established programs pursuant to a Receivables Purchase Agreement (original RPA) to sell from time to time, on an uncommitted basis, eligible device payment plan agreement receivables to a group of primarily relationship banks (Purchasers) on both a revolving and non-revolving basis, collectively the Programs. Under the Programs, Los Angeles SMSA would transfer the eligible receivables to Los Angeles Edge (Seller), who would transfer the device payment plan agreement receivables to the Purchasers for upfront cash proceeds and additional consideration upon settlement of the receivables, referred to as the deferred purchase price. In December 2017, the original RPA and all other related transaction documents were terminated and as of December 31, 2017 neither Verizon Wireless nor Los Angeles SMSA Limited Partnership have continuing involvement with any of the receivables sold under the original RPA program. There were no sales of device payment plan agreement receivables under the Programs during 2017 or thereafter.

Collections of deferred purchase price were $86,009 during 2017. During 2017, Verizon Wireless repurchased all outstanding receivables previously sold to the Purchasers in exchange for the obligation to pay the associated deferred purchase price to the wholly-owned subsidiaries that are bankruptcy remote special purpose entities. At December 31, 2017, the deferred purchase price receivable was fully satisfied. Collections following the repurchase of receivables was insignificant during 2019, $9,331 in 2018 and insignificant during 2017. Collections of both deferred purchase price and repurchased receivables were recorded within cash flows from investing activities in the statements of cash flows.

Asset Backed Securities

Beginning in September of 2016, Verizon Wireless has and continues to offer notes and enter into financing facilities collateralized by device payment plan agreement receivables (collectively, Asset Backed Securities or ABS arrangements) with a number of financial institutions (the Lenders), and through registered debt. In connection with these ABS arrangements, Los Angeles SMSA transfers device payment plan receivables to a trust entity through a two-step transfer - in which Los Angeles SMSA first sells eligible device payment plan receivables to Verizon ABS LLC, a securitization SPE wholly owned and consolidated by Verizon Wireless pursuant to a Receivable Purchase Agreement (RPA), and from Verizon ABS LLC to a designated trust entity (also wholly owned and consolidated by Verizon Wireless). Los Angeles SMSA has also entered into Transfer and Servicing Agreements with the Verizon ABS LLC and Verizon Wireless governing the ongoing servicing of the receivables after their sale to Verizon ABS LLC.

The receivables sold to the trust entity through this two step transfer are no longer considered assets of the Partnership. In exchange for the sale of these receivables, the Partnership receives upfront cash proceeds and a beneficial interest, which represents a form of deferred purchase price. The initial proceeds received from the ABS arrangements and the subsequent collection of beneficial interest are recorded within cash flows from operating activities and investing activities, respectively, on the statements of cash flows.

Under the terms of the ABS arrangements, the Lenders make advances under asset-backed loans backed by device payment plan agreement receivables. There is a two year revolving period, which may be extended, during which Verizon Wireless may transfer additional receivables to Verizon ABS LLC. Subject to certain conditions, Verizon Wireless may also remove receivables from Verizon ABS LLC. Verizon Wireless may prepay the outstanding amounts of the loans without penalty, but in certain cases, with breakage costs. In such instances, as a result of the True-up Trust agreements between Verizon Wireless, Los Angeles SMSA, and the other Verizon legal entities originating device payment plan receivables (collectively, the Originators), each Originator is required to contribute a proportional portion of the prepayment based on its respective share of the debt. In consideration for any such prepayment contributions, the Partnership receives additional beneficial interest in the sold receivables. Additionally, the Partnership may receive repayments of beneficial interest in the form of proportional draw downs as well as excess cash collections. The Partnership's net collections on beneficial interest are recorded within cash flows from investing activities on the statements of cash flows.

During 2019, 2018, and 2017, Verizon Wireless sold $935,829, $830,795, and $706,729, respectively, of device payment plan agreement receivables related to the Partnership, net of allowances and imputed interest, to Verizon ABS LLC, and received proceeds of $224,619, $358,148 and $368,238, respectively, received beneficial interest and recorded insignificant gains and losses. The Partnership had a short-term beneficial interest balance of $105,543 and $43,684 in prepaid expenses and other as of December 31, 2019 and 2018, respectively, as well as a long-term beneficial interest balance of $61,576 and $138,074, as of December 31, 2019 and 2018, respectively, which was recorded within other assets - net on the balance sheets.

Variable interest entities (VIEs)

VIEs are entities that lack sufficient equity to permit the entity to finance its activities without additional subordinated financial support from other parties, have equity investors that do not have the ability to make significant decisions relating to the entity's operations through voting rights, do not have the obligation to absorb the expected losses or do not have the right to receive the residual returns of the entity. The Partnership consolidates the assets and liabilities of VIEs when it is deemed to be the primary beneficiary. The primary beneficiary is the party that has the power to make the decisions that most significantly affect the economic performance of the VIE and has the obligation to absorb losses or the right to receive benefits that could potentially be significant to the VIE.

Under the ABS arrangements, the trust's sole business consists of holding collected receivables that are sold by the Partnership to Verizon Wireless under the terms of the ABS arrangements. The activity of servicing the receivables and distribution of the cash collected is the activity that has the most significant impact on the trust. Verizon Wireless is the master and special servicer for the receivables but does not have a direct variable interest in the trust. The Partnership holds a beneficial interest in the trust, which represents the residual interest in the trust and, as such are, variable interests. Since Verizon Wireless maintains decision making rights as servicer and has an obligation to absorb losses, it is the primary beneficiary in the trust.

Beneficial interest

Under the ABS arrangements, the beneficial interest is initially recorded at fair value, based on the remaining device payment amounts expected to be collected, adjusted, as applicable, for the time value of money and credit risk. The initial fair value measurements are considered to be Level 3 measurements within the fair value hierarchy. The collection of the beneficial interest is contingent on collections from customers.

Continuing involvement

Verizon Wireless has continuing involvement with the sold receivables as it services the receivables pursuant to the ABS arrangements on behalf of the Partnership. Verizon Wireless services the related receivables, including facilitating customer payment collection in exchange for an insignificant servicing fee. While servicing the receivables, the same policies and procedures are applied to the sold receivables that apply to owned receivables, and normal relationships are maintained with customers. The credit quality of the customers Verizon Wireless continues to service was consistent throughout the periods presented.

In addition, the Partnership has continuing involvement related to the sold receivables as the Partnership is responsible for absorbing additional credit losses pursuant to the ABS arrangements. Credit losses on receivables sold were $21,040 during 2019 and $17,359 during 2018. The Partnership's maximum exposure to loss related to the sold receivables is limited to the amount of the outstanding beneficial interest, which was $167,119 and $181,757 as of December 31, 2019 and 2018, respectively. The maximum exposure to loss represents an estimated loss that would be incurred under severe, hypothetical circumstances whereby the Partnership would not receive the total portion of the proceeds withheld by the trust. As the probability of these circumstances occurring is believed to be remote, the maximum exposure to loss is not an indication of the Partnership's expected loss.

The outstanding device payment plan agreement receivables derecognized from the Partnership's balance sheets, but which Verizon Wireless continues to service, was $822,169 and $690,576 at December 31, 2019 and 2018, respectively.

5. PROPERTY, PLANT AND EQUIPMENT, NET

Property, plant and equipment consists of the following at December 31, 2019 and 2018:

	2019	2018
Land	**$ 7,716**	$ 7,716
Buildings and improvements (15-45 years)	**1,164,210**	1,108,936
Wireless plant and equipment (3-50 years)	**4,193,491**	4,084,825
Furniture, fixtures and equipment (3-10 years)	**56,029**	58,986
Leasehold improvements (5-7 years)	**503,158**	494,914
	5,924,604	5,755,377
Less: accumulated depreciation	**(4,015,711)**	(3,756,839)
Property, plant and equipment, net	**$ 1,908,893**	$ 1,998,538

6. LEASING ARRANGEMENTS

Verizon Wireless, on behalf of the Partnership and the Partnership itself enter into various lease arrangements for network equipment, including towers, distributed antenna systems, and small cells; real estate; connectivity mediums, including dark fiber; equipment; and other various types of assets for use in operations. The leases have remaining lease terms ranging from 1 year to 28 years, some of which include options to extend the leases term for up to 25 years, and some of which include options to terminate the leases. For the majority of leases entered into during the current period, the Partnership concluded it is not reasonably certain that the Partnership would exercise the options to extend the lease or terminate the lease. Therefore, as of the lease commencement date, our lease terms generally do not include these options. The Partnership includes options to extend the lease within the lease term when it is reasonably certain that the option will be exercised.

The components of net lease cost were as follows:

	Classification	**For Year Ended December 31, 2019**
Operating lease cost(1)	Cost of services Selling, general and administrative expense	$ 181,294
Short-term lease cost(1)	Cost of services Selling, general and administrative expense	393
Variable lease cost(1)	Cost of services Selling, general and administrative expense	4,954
Sublease income	Other revenues	(420)
Total net lease cost		$ 186,221

(1) All operating lease costs, including short-term and variable lease costs, are split between cost of services and selling, general and administrative expense in the statements of income based on the use of the facility that the rent is being paid on. See Significant Accounting Policies Note for additional information. Variable lease costs represent payments that are dependent on a rate or index, or on usage of the asset.

Supplemental disclosure for the statement of cash flows related to operating leases were as follows:

		For Year Ended December 31, 2019
Cash Flows from Operating Activities		
Cash paid for amounts included in the measurement of operating lease liabilities	$	143,413
Supplemental lease cash flow disclosures		
Operating lease right-of-use assets obtained in exchange for new operating lease liabilities	$	298,763

The weighted-average remaining lease term and the weighted-average discount rate of operating leases were as follows:

	As of December 31, 2019
Weighted-average remaining lease term (years)	10
Weighted-average discount rate	3.90%

The Partnership's maturity analysis of operating lease liabilities as of December 31, 2019 were as follows:

Years		As of December 31, 2019
2020	$	152,772
2021		132,808
2022		116,020
2023		101,884
2024		83,820
2025 and thereafter		424,798
Total operating lease payments		1,012,102
Less interest		(245,594)
Present value of lease liabilities		766,508
Less current obligations		(124,856)
Long-term obligations	$	641,652

As of December 31, 2019, the Partnership has legally obligated lease payments for various other operating leases that have not yet commenced for which the total obligation was not significant. The Partnership has certain rights and obligations for these leases, but have not recognized an operating lease right-of-use asset or an operating lease liability since they have not yet commenced.

Disclosures related to Periods Prior to Adoption of Topic 842

Total rent expense under operating leases amounted to $147,944 and $134,337 in 2018 and 2017, respectively.

7. TOWER MONETIZATION TRANSACTION

Prior to 2017, Verizon completed various transactions with unrelated third-parties pursuant to which the counterparties acquired exclusive rights to lease and operate certain Verizon Wireless towers and assumed the interest in the underlying ground leases related to the towers for an upfront cash payment. Under the terms of these arrangements, the counterparties have exclusive rights to lease and operate the towers over a long term period. In certain arrangements, the counterparty has fixed-price purchase options to acquire the towers based on their fair market values at the end of the lease terms. Verizon Wireless has subleased capacity on the third-party towers for use in its operations.

The Partnership participated in certain of these arrangements and received upfront payments that were accounted for as deferred rental income and as a financing obligation. The deferred rent represents unearned rental income and relates to the portion of the towers for which the right-of-use has passed to the counterparty. The deferred rental income is being recognized on a straight-line basis over the average lease term, which is included in other net changes within the operating section on the statements of cash flows. The financing obligation relates to the portion of the towers that continue to be occupied and used for the Partnership's network operations. Sublease payments are recorded as repayments of financing obligation within financing activities on the statements of cash flows. The Partnership continues to include the towers in property, plant and equipment, net in the balance sheets and depreciates them accordingly. In addition, the minimum future payments for the ground leases have been included in the Partnership's operating lease commitments (See Leasing Arrangements Note). As part of the rights obtained during the transaction, the counterparty is responsible for the payment of the ground leases, and the Partnership does not expect to be required to make payments unless the counterparty defaults, which the Partnership determined to be remote.

At December 31, 2019 and 2018, the deferred rental income related to the transactions were $85,515 and $84,944, respectively, recorded in deferred rent on the balance sheet.

8. CURRENT LIABILITIES

Accounts payable and accrued liabilities consist of the following as of December 31, 2019 and 2018.

		2019		2018
Accounts payable	$	164,285	$	130,668
Accrued liabilities		14,621		12,137
Accounts payable and accrued liabilities	$	178,906	$	142,805

Contract liabilities and other consists of the following as of December 31, 2019 and 2018:

		2019		2018
Contract liabilities	$	179,274	$	160,626
Customer deposits		3,531		14,737
Guarantee liability		286		500
Contract liabilities and other	$	183,091	$	175,863

9. TRANSACTIONS WITH AFFILIATES AND RELATED PARTIES

In addition to fixed-asset purchases, substantially all of service revenues, equipment revenues, other revenues, cost of services, cost of equipment and selling, general and administrative expenses of the Partnership represent transactions processed by Verizon Wireless on behalf of the Partnership, or represent transactions with affiliates. These transactions consist of: (1) revenues and expenses that pertain to the Partnership, which are processed by Verizon Wireless and directly attributed to or directly charged to the Partnership; (2) roaming revenue when customers of Verizon Wireless outside the Partnership use the network of the Partnership, or roaming cost when customers associated with the Partnership use the network of Verizon Wireless; (3) certain revenues and expenses processed or incurred by Verizon Wireless that are allocated to the Partnership principally based on total subscribers; and (4) service arrangements with Verizon Wireless, where the Partnership has the ability to utilize certain spectrum owned by Verizon Wireless. These transactions do not necessarily represent arm's-length transactions and may not represent all revenues and costs that would be present if the Partnership operated on a stand-alone basis. Verizon Wireless periodically reviews the methodology and allocation bases for allocating certain revenues, operating costs and selling, general and administrative expenses to the Partnership. Resulting changes, if any, in the allocated amounts have historically not been significant, other than the roaming revenue and cost impacts discussed below.

Service revenues

Service revenues include monthly customer billings processed by Verizon Wireless on behalf of the Partnership and roaming revenues relating to customers of other affiliated markets that are specifically identified to the Partnership. For the years ended December 31, 2019, 2018 and 2017, roaming revenues were $549,201, $527,038 and $510,521, respectively. During 2017, Verizon Wireless updated its roaming rates and methodology for determining roaming volumes charged for postpaid, prepaid and reseller roaming revenue, resulting in a net decrease of $145,797 in roaming revenue as compared to prior periods. Service revenues also include usage and certain revenue reductions, including revenue concessions and bill incentive credits, which are processed by Verizon Wireless, and allocated to the Partnership based on certain factors deemed appropriate by Verizon Wireless.

Equipment revenues

Equipment revenues include equipment sales processed by Verizon Wireless and specifically identified to the Partnership, as well as certain handset and accessory revenues, and contra-revenues, including equipment concessions and equipment manufacturer rebates, that are processed by Verizon Wireless and allocated to the Partnership based on certain factors deemed appropriate by Verizon Wireless. The Partnership also recognizes commission revenue on the sale of devices to customers whose service contract is with an affiliate market.

Other revenues

Other revenues include other fees and surcharges charged to the customer that are specifically identified to the Partnership.

Cost of service

Cost of services includes roaming costs relating to customers associated with the Partnership that are roaming in other affiliated markets and switch costs that are incurred by Verizon Wireless and allocated to the Partnership based on certain factors deemed appropriate by Verizon Wireless. For the years ended December 31, 2019, 2018 and 2017 roaming costs were $684,200, $651,083 and $637,264, respectively. During 2017, Verizon Wireless updated its roaming rates and methodology for determining roaming amounts charged for postpaid, prepaid and reseller roaming cost, resulting in a net decrease of $182,169 to roaming cost as compared to prior periods. Cost of service also includes cost of telecom and long-distance that are incurred by Verizon Wireless and allocated to the Partnership based on certain factors deemed appropriate by Verizon Wireless. The Partnership also has service arrangements to utilize additional spectrum owned by Verizon Wireless. See Significant Accounting Policies Note for further information regarding these arrangements.

Cost of equipment

Cost of equipment is recorded at Verizon Wireless's cost basis (see Significant Accounting Policies Note). Cost of equipment includes certain costs related to handsets, accessories and other costs incurred by Verizon Wireless and allocated to the Partnership based on certain factors deemed appropriate by Verizon Wireless.

Selling, general and administrative

Selling, general and administrative expenses include commissions, customer billing, customer care, and salaries that are specifically identified to the Partnership, as well as costs incurred by Verizon Wireless and allocated to the Partnership based on certain factors deemed appropriate by Verizon Wireless. The Partnership was allocated $108,020, $94,132 and $100,183 in advertising costs for the years ended December 31, 2019, 2018 and 2017, respectively.

Property, plant and equipment

Property, plant and equipment includes assets purchased by Verizon Wireless and directly charged to the Partnership, as well as assets transferred between Verizon Wireless and the Partnership (see Significant Accounting Policies Note).

Spectrum service agreements

The Partnership has also entered into certain agreements with Verizon Wireless to utilize certain wireless spectrum from Verizon Wireless that overlaps the Los Angeles metropolitan statistical area. Total expense under these wireless spectrum service arrangements amounted to $126,941, $126,288 and $125,608 in 2019, 2018 and 2017, respectively, which is included in cost of service in the statements of income.

Based on the terms of these service agreements as of December 31, 2019, future wireless spectrum service agreement obligations to Verizon Wireless are as follows:

Years		**Amount**
2020		127,620
2021		128,319
2022		129,031
2023		129,758
2024		130,500
2025 and thereafter		855,035
Total minimum payments	$	1,500,263

10. CONTINGENCIES

Verizon Wireless and the Partnership are subject to lawsuits and other claims, including class actions, product liability, patent infringement, intellectual property, antitrust, partnership disputes and claims involving relations with resellers and agents. Verizon Wireless is also currently defending lawsuits filed against it and other participants in the wireless industry, alleging various adverse effects as a result of wireless phone usage. Various consumer class-action lawsuits allege that Verizon Wireless violated certain state consumer-protection laws and other statutes and defrauded customers through misleading billing practices or statements. These matters may involve indemnification obligations by third parties and/or affiliated parties covering all or part of any potential damage awards against Verizon Wireless and the Partnership and/or insurance coverage. All of the above matters are subject to many uncertainties, and the outcomes are not currently predictable.

The Partnership may incur or be allocated a portion of the damages that may result upon adjudication of these matters, if the claimants prevail in their actions. At December 31, 2019 and 2018, the Partnership had no accrual for any pending matters. An estimate of the reasonably possible loss or range of loss with respect to these matters as of December 31, 2019 cannot be made at this time due to various factors typical in contested proceedings, including: (1) uncertain damage theories and demands; (2) a less-than-complete factual record; (3) uncertainty concerning legal theories and their resolution by courts or regulators and (4) the unpredictable nature of the opposing party and its demands. Verizon Wireless and the Partnership continuously monitor these proceedings as they develop and will adjust any accrual or disclosure as needed. It is not expected that the ultimate resolution of any pending regulatory or legal matter in future periods will have a material effect on the financial condition of the Partnership, but it could have a material effect on the results of operations for a given reporting period.

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.

UNITED STATES CELLULAR CORPORATION

By: /s/ Kenneth R. Meyers
Kenneth R. Meyers
President and Chief Executive Officer
(principal executive officer)

By: /s/ Douglas W. Chambers
Douglas W. Chambers
Senior Vice President, Chief Financial Officer and Treasurer
(principal financial officer)

By: /s/ Anita J. Kroll
Anita J. Kroll
Chief Accounting Officer
(principal accounting officer)

By: /s/ Jeffrey S. Hoersch
Jeffrey S. Hoersch
Vice President and Controller

Dated: February 25, 2020

Power of Attorney

Each person whose signature appears below constitutes and appoints LeRoy T. Carlson, Jr. as his or her true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution for him or her and in his or her name, place, and stead, in any and all capacities to sign any and all amendments to this Annual Report on Form 10-K under the Securities Exchange Act of 1934, as amended, and to file the same, with all exhibits thereto, and other documents in connection therewith with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do so and perform each and every act and thing requisite or necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all the said attorney-in fact and agent or any of them, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

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 dates indicated.

Signature	Title	Date
/s/ LeRoy T. Carlson, Jr. LeRoy T. Carlson, Jr.	Director	February 25, 2020
/s/ Kenneth R. Meyers Kenneth R. Meyers	Director	February 25, 2020
/s/ Steven T. Campbell Steven T. Campbell	Director	February 25, 2020
/s/ Walter C. D. Carlson Walter C. D. Carlson	Director	February 25, 2020
/s/ J. Samuel Crowley J. Samuel Crowley	Director	February 25, 2020
/s/ Ronald E. Daly Ronald E. Daly	Director	February 25, 2020
/s/ Harry J. Harczak, Jr. Harry J. Harczak, Jr.	Director	February 25, 2020
/s/ Gregory P. Josefowicz Gregory P. Josefowicz	Director	February 25, 2020
/s/ Peter L. Sereda Peter L. Sereda	Director	February 25, 2020
/s/ Cecelia D. Stewart Cecelia D. Stewart	Director	February 25, 2020
/s/ Kurt B. Thaus Kurt B. Thaus	Director	February 25, 2020

Exhibit 4.9

**DESCRIPTION OF THE REGISTRANT'S SECURITIES
REGISTERED PURSUANT TO SECTION 12 OF THE
SECURITIES EXCHANGE ACT OF 1934**

As of December 31, 2019, United States Cellular Corporation has four classes of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"): (1) our Common Stock; (2) our 6.95% Senior Notes due 2060; (3) our 7.25% Senior Notes due 2063; and (4) our 7.25% Senior Notes due 2064.

Description of Common Stock

The following description of our Common Stock is a summary and does not purport to be complete. It is subject to and qualified in its entirety by reference to our Restated Certificate of Incorporation (the "Certificate of Incorporation") and our Restated Bylaws, as amended (the "Bylaws"), each of which are incorporated by reference as an exhibit to the Annual Report on Form 10-K of which this Exhibit 4.9 is a part. We encourage you to read our Certificate of Incorporation, our Bylaws and the applicable provisions of Delaware General Corporation Law, as amended, for additional information.

Authorized Capital Shares

Our authorized capital shares consist of 140,000,000 shares of common stock, $1.00 par value per share ("Common Stock"), 50,000,000 shares of series A common stock, $1.00 par value per share ("Series A Stock"), 5,000,000 shares of preferred stock, $1.00 par value per share ("Preferred Stock"). The outstanding shares of our Common Stock are fully paid and nonassessable.

Voting Rights

The holders of Common Stock have one vote per share and the holders of Series A Stock have ten votes per share. In the election of directors, holders of Common Stock vote in the election of 25% of the total number of directors for the U.S. Cellular Board of Directors rounded up to the next whole number. The holders of Series A Stock elect the remaining directors. If the number of Series A Stock issued and outstanding at any time falls below 12.5% of the number of outstanding shares of Common Stock, because of the conversion of Series A Common Stock into Common Stock or otherwise, the holders of Series A Stock would lose the right to vote as a separate class, and thereafter, the holders of Series A Stock, with ten votes per share, and the holders of Common Stock, with one vote per share, would vote as a single class in the election of all directors.

In addition, Telephone and Data Systems, Inc. ("TDS") controls a majority of the voting power of U.S. Cellular through its ownership of 100% of the issued and outstanding Series A Stock and approximately 70%of the issued and outstanding Common Stock. In general, only the affirmative vote of TDS will be required to amend the U.S. Cellular Restated Certificate of Incorporation, approve the sale of substantially all of the assets of U.S. Cellular, approve the dissolution of U.S. Cellular or approve any other matter required to be voted on by shareholders, except as required under the U.S. Cellular Restated Certificate of Incorporation or the Delaware General Corporation Law.

Our Common Stock does not have cumulative voting rights.

Dividend Rights

The holders of Common Stock are entitled to receive dividends, if any, as may be declared from time to time by the Board of Directors in its discretion out of funds legally available for the payment of dividends.

Liquidation Rights

Holders of Common Stock and Series A Stock will share ratably in all assets legally available for distribution to our stockholders in the event of dissolution.

Other Rights and Preferences

Our Common Stock has no sinking fund provisions or preemptive, conversion or exchange rights.

Our Common Stock may be subject to redemption if, in the judgment of the Board such action is necessary to prevent the loss or secure the reinstatement of any license of franchise from any governmental agency held by U.S. Cellular or any of its subsidiaries. The redemption price is the lesser of the fair market value of such Common Stock or the purchase price if held by a "disqualified holder" as described in Section J of Article IV and Article IX of the Certificate of Incorporation.

Holders of Common Stock may act by written consent if shares representing not less than the minimum voting power of the shares that would be necessary to authorize or take such action at a meeting at which all shares of capital stock of U.S. Cellular entitled to vote thereon were present and voted.

Limitation of Liability

Our Certificate of Incorporation provides that, to the full extent authorized by the Delaware General Corporation Law, directors of U.S. Cellular will not be personally liable to the U.S. Cellular or its shareholders for monetary damages for breach of fiduciary duty as a director.

Listing

The Common Stock is traded on The New York Stock Exchange under the trading symbol "USM."

Description of the Notes

The following description of our 6.95% Senior Notes due 2060 (the "2060 Notes"), our 7.25% Senior Notes due 2063 (the "2063 Notes"), and our 7.25% Senior Notes due 2064 (the "2064 Notes" and, together with our 2060 Notes and 2063 Notes, the "notes"), is a summary and does not purport to be complete. It is subject to and qualified in its entirety by reference to the Indenture for Senior Debt Securities between U.S. Cellular and The Bank of New York Mellon Trust Company, N.A. (the "Trustee"), formerly known as The Bank of New York Trust Company, N.A., as successor to BNY Midwest Trust Company dated June 1, 2002 (the "Base Indenture"), as supplemented in the case of the 2060 Notes by the sixth supplemental indenture dated May 9, 2011, as supplemented in the case of the 2063 Notes by the seventh supplemental indenture dated December 8, 2014, and as supplemented in the case of the 2064 Notes by the eighth supplemental indenture dated November 23, 2015 (the Base Indenture, as supplemented by the sixth, seventh and eighth supplemental indentures, the "indenture"), which are incorporated by reference as exhibits to the Annual Report on Form 10-K of which this Exhibit 4.9 is a part. The 2060 Notes, the 2063 Notes and the 2064 Notes are each traded on The New York Stock Exchange under the trading symbols of "UZA," "UZB" and "UZC," respectively.

We encourage you to read the above referenced indenture, as supplemented, for additional information.

General

The following is a description of certain of the specific terms and conditions of the indenture supplements with respect to each of the notes.

The 2060 Notes were issued in an aggregate principal amount of $342,000,000, which remains the aggregate principal amount outstanding. The 2063 Notes were issued in an aggregate principal amount of $275,000,000, which remains the aggregate principal amount outstanding. The 2064 Notes were issued in an aggregate principal amount of $300,000,000, which remains the aggregate principal amount outstanding.

The notes are senior unsecured obligations and rank equally with our other unsecured and unsubordinated debt from time to time outstanding. However, in certain circumstances the notes may become effectively subordinated to the claims of the holders of certain other indebtedness of U.S. Cellular, of which approximately $534 million is outstanding as of December 31, 2019. This certain other indebtedness has the benefit of covenants limiting secured debt and sale and leaseback transactions similar to, but more restrictive than, the limitations on secured debt and sale and leaseback transactions of the notes. In the event USM incurs secured debt or enters into a sale and leaseback transaction that is excepted from the covenant protection provided to the holders of the notes but not the holders of this other indebtedness, the notes may become effectively subordinated to the claims of the holders of the other indebtedness up to the value of the assets subject to the lien or sale and leaseback transaction. In addition, because U.S. Cellular is a holding company which conducts substantially all of its operations through subsidiaries, the right of U.S. Cellular, and therefore, the right of creditors of U.S. Cellular, including the holders of the notes, to participate in any distribution of the assets of any subsidiary upon its liquidation or reorganization or otherwise is subject to the prior claims of creditors of the subsidiary, except to the extent that claims of U.S. Cellular itself as a creditor of the subsidiary may be recognized. As of December 31, 2019, our subsidiaries had approximately $11 million of other long-term debt.

The maturity date of the 2060 Notes is May 15, 2060. The maturity date of the 2063 Notes is December 1, 2063. The maturity date of the 2064 Notes is December 1, 2064.

The notes will be subject to legal defeasance and covenant defeasance as provided under the "Discharge, Defeasance and Covenant Defeasance" section set forth below.

The notes were issued in a form of one or more fully registered global securities, without coupons, in the name of a nominee of The Depository Trust Company (the "Depositary"), in denominations of $25.

U.S. Cellular may redeem the notes, in whole or in party, at any time at a redemption price equal to 100% of the principal amount redeemed plus accrued and unpaid interest to the redemption date. U.S. Cellular is not required to establish a sinking fund prior to redemption.

The Base Indenture does not limit the amount of debt securities that we may issue under the Base Indenture and provides that debt securities may be issued from time to time in one or more series.

Interest and Principal

The 2060 Notes bear interest at a fixed rate of 6.95% per annum and interest is paid quarterly on March 15, June 15, September 15 and December 15 of each year until maturity. The 2063 Notes bear interest at a fixed rate of 7.25% per annum and interest is paid quarterly on March 1, June 1, September 1 and December 1 of each year until maturity. The 2064 Notes bear interest at a fixed rate of 7.25% per annum and interest is paid quarterly on March 1, June 1, September 1 and December 1 of each year until maturity. Each of the above dates is referred to as an "interest payment date". We will pay interest on the notes to the persons in whose names the notes are registered at the close of business on the day immediately preceding the related interest payment date. Interest on the notes will be computed on the basis of twelve 30-day months and a 360-day year. If any interest payment date falls on a Saturday, Sunday, legal holiday or a day on which banking institutions in the City of New York are authorized by law to close, then payment of interest will be made on the next succeeding business day and no additional interest will accrue because of the delayed payment, except that, if such business day is in the next succeeding calendar year, such payment will be made on the immediately preceding business day, with the same force and effect as if made on such date.

Optional Redemption

At any time prior to the maturity date of the notes, we will have the right at our option to redeem the notes, in whole or in part, at any time or from time to time, on at least 30 days' but not more than 60 days' prior notice, at a redemption price, calculated by us, equal to 100% of the principal amount redeemed plus accrued and unpaid interest to the redemption date. The notes are not subject to any sinking fund provision.

Book-Entry and Settlement

The notes were issued in book-entry form through the facilities of the Depositary. Book-entry debt securities represented by a global security are not be exchangeable for certificated notes and will not otherwise be issuable as certificated notes.

Beneficial interests in the global securities are represented, and transfers of such beneficial interest are effected, through accounts of the Depositary acting on behalf of beneficial owners as direct or indirect participants.

Beneficial interests in the global securities will be shown on, and transfers of beneficial interests in the global securities are made only through, records maintained by the Depositary.

So long as the Depositary or its nominee is the registered owner of the global security, the Depositary or its nominee will be considered the sole owner or holder of the notes represented by such global security for all purposes under the notes and the Base Indenture and supplemental indenture pursuant to which the notes were issued. Except as provided below or as we may otherwise agree in our sole discretion, owners of beneficial interests in a global security will not be entitled to have notes represented by the global security registered in their names, will not receive or be entitled to receive physical delivery of notes in definitive form and will not be considered the owners or holders thereof under the Base Indenture or supplemental indenture pursuant to which the notes were issued. Accordingly, each person owning a beneficial interest in the global security must rely on the procedures of the Depositary and, if that person is not a participant, on the procedures of the participant through which that person owns its interest, to exercise any rights of a holder under the Base Indenture or supplemental indenture. Principal and interest payments on notes registered in the name of the Depositary or its nominee will be made to the Depositary or its nominee, as the case may be, as the registered owner of the global security representing such notes. None of U.S. Cellular, the Trustee, any paying agent or the registrar for the Notes will have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial interests in such global security for such notes or for maintaining, supervising or reviewing any records relating to such beneficial interests.

Trustee, Paying Agents and Security Registrar

The Bank of New York Mellon Trust Company, N.A. is the trustee under the indentures governing the notes. The Trustee is a national banking association organized under and governed by the laws of the United States of America, and provides trust services and acts as indenture trustee for numerous corporate securities issuances, including for other series of debt securities of which we are the issuer. The Trustee is an affiliate of The Bank of New York Mellon Corp., which is one of a number of banks with which U.S. Cellular and its subsidiaries maintain ordinary banking relationships including, in certain cases, credit facilities. In connection therewith, we utilize or may utilize some of the banking and other services offered by The Bank of New York Mellon Corp. or its affiliates, including The Bank of New York Mellon Trust Company, N.A., in the normal course of business, including securities custody services.

Base Indenture Provisions:

Governing Law

The Base Indenture and the notes are governed by, and construed in accordance with, the laws of the State of Illinois.

Modification of the Indenture

With the Consent of Security holders. The Base Indenture contains provisions permitting U.S. Cellular and the Trustee, with the consent of the holders of not less than a majority in principal amount of debt securities of each series that are affected by the modification, to modify the Base Indenture or any supplemental indenture affecting that series or the rights of the holders of that series of debt securities.

However, no such modification, without the consent of the holder of each outstanding security affected thereby, may:

- extend the fixed maturity of any debt securities of any series;
- reduce the principal amount of any debt securities of any series;
- reduce the rate or extend the time of payment of interest on any debt securities of any series;
- reduce any premium payable upon the redemption of any debt securities of any series;
- reduce the amount of the principal of a discount security that would be due and payable upon a declaration of acceleration of the maturity of any debt securities of any series;
- reduce the percentage of holders of aggregate principal amount of debt securities which are required to consent to any such supplemental indenture; or
- reduce the percentage of holders of aggregate principal amount of debt securities which are required to waive any default and its consequences.

Without the Consent of Security holders. In addition, U.S. Cellular and the Trustee may execute, without the consent of any holder of debt securities, any supplemental indenture for certain other usual purposes, including:

- to evidence the succession of another person to U.S. Cellular or a successor to U.S. Cellular, and the assumption by any such successor of the covenants of U.S. Cellular contained in the Base Indenture or otherwise established with respect to the debt securities;
- to add to the covenants of U.S. Cellular further covenants, restrictions, conditions or provisions for the protection of the holders of the debt securities of all or any series, and to make the occurrence, or the occurrence and continuance, of a default in any of such additional covenants, restrictions, conditions or provisions a default or an Event of Default, as described below, with respect to such series permitting the enforcement of all or any of the several remedies provided in the Indenture;
- to cure any ambiguity or to correct or supplement any provision contained in the Base Indenture or in any supplemental indenture which may be defective or inconsistent with any other provision contained in the Indenture or in any supplemental indenture, or to make such other provisions in regard to matters or questions arising under the Indenture as are not inconsistent with the provisions of the Base Indenture and will not adversely affect the rights of the holders of the notes of any series which are outstanding in any material respect;
- to change or eliminate any of the provisions of the Base Indenture or to add any new provision to the Base Indenture, except that such change, elimination or addition will become effective only as to debt securities issued pursuant to or subsequent to such supplemental indenture unless such change, elimination or addition does not adversely affect the rights of any security holder of outstanding debt securities in any material respect;
- to establish the form or terms of debt securities of any series as permitted by the Indenture;
- to add any additional Events of Default with respect to all or any series of outstanding debt securities;
- to add guarantees with respect to debt securities or to release a guarantor from guarantees in accordance with the terms of the applicable series of debt securities;
- to secure a series of debt securities by conveying, assigning, pledging or mortgaging property or assets to the Trustee as collateral security for such series of debt securities;
- to provide for uncertificated debt securities in addition to or in place of certificated debt securities;
- to provide for the authentication and delivery of bearer debt securities and coupons representing interest, if any, on such debt securities, and for the procedures for the registration, exchange and replacement of such debt securities, and for the giving of notice to, and the solicitation of the vote or consent of, the holders of such debt securities, and for any other matters incidental thereto;

- to evidence and provide for the acceptance of appointment by a separate or successor Trustee with respect to the debt securities and to add to or change any of the provisions of the Base Indenture as may be necessary to provide for or facilitate the administration of the trusts by more than one Trustee;
- to change any place or places where:
  - the principal of and premium, if any, and interest, if any, on all or any series of debt securities will be payable,
  - all or any series of debt securities may be surrendered for registration of transfer,
  - all or any series of debt securities may be surrendered for exchange, and
  - notices and demands to or upon U.S. Cellular in respect of all or any series of debt securities and the Base Indenture may be served, which must be located in New York, New York or be the principal office of U.S. Cellular;
- to provide for the payment by U.S. Cellular of additional amounts in respect of certain taxes imposed on certain holders and for the treatment of such additional amounts as interest and for all matters incidental thereto;
- to provide for the issuance of debt securities denominated in a currency other than dollars or in a composite currency and for all matters incidental thereto; or
- to comply with any requirements of the SEC or the Trust Indenture Act of 1939, as amended.

Consolidation, Merger and Sale of Assets

The Base Indenture does not contain any covenant that restricts our ability to merge or consolidate with or into any other corporation, sell or convey all or substantially all of our assets to any person, firm or corporation or otherwise engage in restructuring transactions.

Events of Default

The Base Indenture provides that any one or more of the following described events, which has occurred and is continuing, constitutes an ‘‘Event of Default’’ with respect to each series of debt securities:

- failure for 30 days to pay interest on debt securities of that series when due and payable; or
- failure for three business days to pay principal or premium, if any, on debt securities of that series when due and payable whether at maturity, upon redemption, pursuant to any sinking fund obligation, by declaration or otherwise; or
- failure by U.S. Cellular to observe or perform any other covenant (other than those specifically relating to another series) contained in the Indenture for 90 days after written notice to U.S. Cellular from the Trustee or the holders of at least 33% in principal amount of the outstanding debt securities of that series; or
- certain events involving bankruptcy, insolvency or reorganization of U.S. Cellular; or
- any other event of default provided for in a series of debt securities.

Except as may otherwise be set forth in a prospectus supplement, the Trustee or the holders of not less than 33% in aggregate outstanding principal amount of any particular series of debt securities may declare the principal due and payable immediately upon an Event of Default with respect to such series. Holders of a majority in aggregate outstanding principal amount of such series may annul any such declaration and waive the default with respect to such series if the default has been cured and a sum sufficient to pay all matured installments of interest and principal otherwise than by acceleration and any premium has been deposited with the Trustee.

The holders of a majority in aggregate outstanding principal amount of any series of debt securities have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee for that series.

Subject to the provisions of the Base Indenture relating to the duties of the Trustee in case an Event of Default will occur and be continuing, the Trustee will be under no obligation to exercise any of its rights or powers under the Base Indenture at the request or direction of any of the holders of the debt securities, unless such holders will have offered to the Trustee indemnity satisfactory to it.

The holders of a majority in aggregate outstanding principal amount of any series of debt securities affected thereby may, on behalf of the holders of all debt securities of such series, waive any past default, except as discussed in the following paragraph.

The holders of a majority in aggregate outstanding principal amount of any series of debt securities affected thereby may not waive a default in the payment of principal, premium, if any, or interest when due otherwise than by

- acceleration, unless such default has been cured and a sum sufficient to pay all matured installments of interest and principal otherwise than by acceleration and any premium has been deposited with the Trustee; or
- a call for redemption or any series of debt securities.

We are required to file annually with the trustee a certificate as to whether or not we are in compliance with all the conditions and covenants under the Base Indenture.

Discharge, Defeasance and Covenant Defeasance

Debt securities of any series may be defeased in accordance with their terms and, unless the supplemental indenture or company order establishing the terms of such series otherwise provides, as set forth below.

We at any time may terminate as to a series our obligations with respect to the debt securities of that series under any restrictive covenant which may be applicable to that particular series, commonly known as ‘‘covenant defeasance.’’ All of our other obligations would continue to be applicable to such series.

We at any time may also terminate as to a series substantially all of our obligations with respect to the debt securities of such series and the Base Indenture, commonly known as ‘‘legal defeasance.’’ However, in legal defeasance, certain of our obligations would not be terminated, including our obligations with respect to the defeasance trust and obligations to register the transfer or exchange of a security, to replace destroyed, lost or stolen debt securities and to maintain agencies in respect of the debt securities.

We may exercise our legal defeasance option notwithstanding our prior exercise of any covenant defeasance option.

If we exercise a defeasance option, the particular series will not be accelerated because of an event that, prior to such defeasance, would have constituted an Event of Default.

To exercise either of our defeasance options as to a series, we must irrevocably deposit in trust with the Trustee or any paying agent money, certain eligible obligations as specified in the Base Indenture, or a combination thereof, in an amount sufficient to pay when due the principal of and premium, if any, and interest, if any, due and to become due on the debt securities of such series that are outstanding.

Such defeasance or discharge may occur only if, among other things, we have delivered to the Trustee an opinion of counsel stating that:

- the holders of such debt securities will not recognize gain, loss or income for federal income tax purposes as a result of the satisfaction and discharge of the Base Indenture with respect to such series, and
- that such holders will realize gain, loss or income on such debt securities, including payments of interest thereon, in the same amounts and in the same manner and at the same time as would have been the case if such satisfaction and discharge had not occurred.

The amount of money and eligible obligations on deposit with the Trustee may not be sufficient to pay amounts due on the debt securities of that series at the time of an acceleration resulting from an Event of Default if:

- we exercise our option to effect a covenant defeasance with respect to the debt securities of any series, and
- the debt securities of that series are thereafter declared due and payable because of the occurrence of any Event of Default.

In such event, we would remain liable for such payments.

Exhibit 10.33

AMENDMENT TO RETENTION AGREEMENT

Whereas, USCC Services, LLC (the "Company") and Steven T. Campbell (the "Executive") are parties to a Retention Agreement (the "Agreement") dated April 12, 2018;

Whereas, since April 2018, Executive has supported the successful transition and development of his successor with the result that a one-year notice of intent to retire is no longer needed; and

Whereas, the parties desire to amend paragraph 2 of the Agreement to revise the notice period required with respect to the Executive's intent to retire.

Therefore, effective as of December 20, 2019, paragraph 2 of the Agreement is hereby amended in its entirety as follows:

2. Retention Package. Provided that Executive retires on or after May 8, 2020 (or such later date as the Company's first quarter 1OQ is filed), and has satisfactorily performed his job duties up to and including his retirement date, Executive will be eligible to receive (i) payment of a bonus under the Executive Officer Annual Incentive Plan (or any successor thereto) (the "Executive Bonus Plan") with respect to the calendar year of his retirement, subject to the terms and conditions of the Executive Bonus Plan; provided, however, that the amount of any such bonus shall be no less than Executive's target bonus for such calendar year pro-rated to reflect the portion of such calendar year during which Executive was employed by the Company; (ii) the transfer of title to Executive of his company car and (iii) a mutually agreeable written consulting agreement with the Company with a term of three years following his termination with compensation thereunder at the rate of $270,000 per year, contemplating services at the reasonable request of the Chairman or Chief Executive Officer, but not to exceed 10 hours per month (subject to compliance with the terms of such consulting agreement) ((i), (ii) and (iii) collectively, the "Retention Package"), subject to the conditions as set forth in this Agreement and provided that Executive signs the Confidentiality, Non-Solicitation and Non-Competition Agreement attached hereto (the "Noncompete Agreement") contemporaneously with the signing of this Agreement and does not breach such agreement.

Subject to paragraph 9 of this Agreement, (1) any bonus payable pursuant to this Agreement shall be paid in a lump sum in the year following the calendar year during which Executive terminates, but no later than March 15 of such following year; (2) any compensation payable under a consulting agreement entered into pursuant to this Agreement shall be paid in substantially equal monthly payments over the three year consulting period, commencing in the calendar month following Executive's termination of employment and (3) any transfer of the title of the company car pursuant to this Agreement shall occur in the calendar month following Executive's termination of employment.

All other terms and conditions of the Agreement are unchanged.

AGREED AND ACCEPTED:

USCC SERVICES, LLC		EXECUTIVE	
By:	/s/ Kenneth R. Meyers	By:	/s/ Steven T. Campbell
	Kenneth R. Meyers		Steven T. Campbell
	President and Chief Executive Officer		Executive Vice President and Chief Administrative Officer
Dated:	December 20, 2019	Dated:	December 20, 2019

AMENDMENT TO RETENTION AGREEMENT

Between USCC Services, LLC and Steven T. Campbell

Exhibit 10.34

AMENDMENT TO RETENTION AGREEMENT

Whereas, USCC Services, LLC (the "Company") and Jay M. Ellison (the "Executive") are parties to a Retention Agreement (the "Agreement") dated April 12, 2018;

Whereas, the parties desire to amend paragraph 2 of the Agreement to revise the notice period required with respect to the Executive's intent to retire.

Therefore, effective as of January 7, 2020, paragraph 2 of the Agreement is hereby amended in its entirety as follows:

2. Retention Package. Provided that Executive retires on or after January 1, 2021, and has satisfactorily performed his job duties up to and including his retirement date, Executive will be eligible to receive (i) payment of a bonus under the Executive Officer Annual Incentive Plan (or any successor thereto) (the "Executive Bonus Plan") with respect to the calendar year of his retirement, subject to the terms and conditions of the Executive Bonus Plan; provided, however, that (A) to be eligible for a bonus with respect to the calendar year of his retirement, Executive must remain employed through January 31 of such year and (B) the amount of any such bonus shall be no less than Executive's target bonus for such calendar year pro-rated to reflect the portion of such calendar year during which Executive was employed by the Company; (ii) the transfer of title to Executive of his company car and (iii) a mutually agreeable written consulting agreement with the Company with a term of three years following his termination with compensation thereunder at the rate of $270,000 per year, contemplating services at the reasonable request of the Chairman or Chief Executive Officer, but not to exceed 10 hours per month (subject to compliance with the terms of such consulting agreement) ((i), (ii) and (iii) collectively, the "Retention Package"), subject to the conditions as set forth in this Agreement and provided that Executive signs the Confidentiality, Non-Solicitation and Non-Competition Agreement attached hereto (the "Noncompete Agreement") contemporaneously with the signing of this Agreement and does not breach such agreement. Any pro-rated bonus payable under item (i) shall be calculated as the product of (A) the bonus for the entire calendar year and (B) a fraction, of which the numerator is the number of complete calendar months during the calendar year of Executive's retirement during which Executive's employment continued, and the denominator is twelve.

Subject to paragraph 9 of this Agreement, (1) any bonus payable pursuant to this Agreement shall be paid in a lump sum in the year following the calendar year during which Executive terminates, but no later than March 15 of such following year; (2) any compensation payable under a consulting agreement entered into pursuant to this Agreement shall be paid in substantially equal monthly payments over the three year consulting period, commencing in the calendar month following Executive's termination of employment and (3) any transfer of the title of the company car pursuant to this Agreement shall occur in the calendar month following Executive's termination of employment.

All other terms and conditions of the Agreement are unchanged.

AGREED AND ACCEPTED:

USCC SERVICES, LLC		EXECUTIVE	
By:	/s/ Kenneth R. Meyers Kenneth R. Meyers President and Chief Executive Officer	By:	/s/ Jay M. Ellison Jay M. Ellison Executive Vice President and Chief Operating Officer
Dated:	January 7, 2020	Dated:	January 13, 2020

Exhibit 13

United States Cellular Corporation and Subsidiaries

Financial Reports Contents **Page No.**

United States Cellular Corporation
Management’s Discussion and Analysis of
Financial Condition and Results of Operations

Executive Overview

The following Management’s Discussion and Analysis (MD&A) should be read in conjunction with the audited consolidated financial statements and notes of United States Cellular Corporation (U.S. Cellular) for the year ended December 31, 2019, and with the description of U.S. Cellular’s business included herein. Certain numbers included herein are rounded to millions for ease of presentation; however, certain calculated amounts and percentages are determined using the unrounded numbers.

This report contains statements that are not based on historical facts, including the words “believes,” “anticipates,” “estimates,” “expects,” “plans,” “intends,” “projects” and similar expressions. These statements constitute and represent “forward looking statements” as this term is defined in the Private Securities Litigation Reform Act of 1995. Such forward looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results, events or developments to be significantly different from any future results, events or developments expressed or implied by such forward looking statements. See Private Securities Litigation Reform Act of 1995 Safe Harbor Cautionary Statement for additional information.

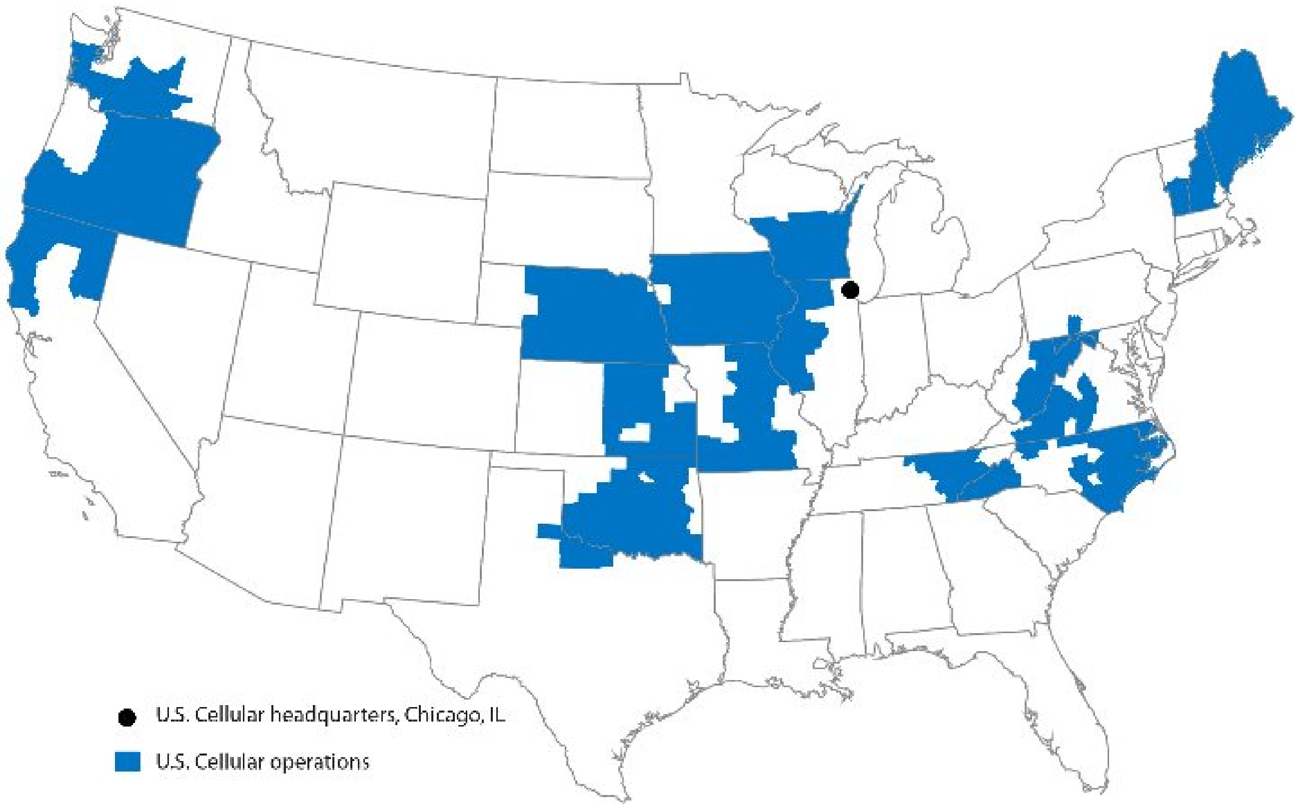
U.S. Cellular uses certain “non-GAAP financial measures” and each such measure is identified in the MD&A. A discussion of the reason U.S. Cellular determines these metrics to be useful and a reconciliation of these measures to their most directly comparable measures determined in accordance with accounting principles generally accepted in the United States of America (GAAP) are included in the Supplemental Information Relating to Non-GAAP Financial Measures section within the MD&A of this Form 10-K Report.

The following MD&A omits discussion of 2018 compared to 2017. Refer to Management's Discussion and Analysis of Financial Condition and Results of Operations in U.S. Cellular's Annual Report on Form 10-K for the year ended December 31, 2018, filed with the SEC on February 22, 2019, for that discussion.

General

U.S. Cellular owns, operates, and invests in wireless markets throughout the United States. U.S. Cellular is an 82%-owned subsidiary of Telephone and Data Systems, Inc. (TDS). U.S. Cellular's strategy is to attract and retain wireless customers through a value proposition comprised of a high-quality network, outstanding customer service, and competitive devices, plans, and pricing, all provided with a local focus.

OPERATIONS



- Serves customers with 4.9 million connections including 4.4 million postpaid, 0.5 million prepaid and 0.1 million reseller and other connections
- Operates in 20 states
- Employs approximately 5,500 associates
- 4,166 owned towers
- 6,578 cell sites in service

U.S. Cellular Mission and Strategy

U.S. Cellular’s mission is to provide exceptional wireless communication services which enhance consumers’ lives, increase the competitiveness of local businesses, and improve the efficiency of government operations in the mid-sized and rural markets served.

U.S. Cellular continues to execute on its strategies to grow and protect its customer base, grow revenues, drive improvements in the overall cost structure, and invest in its network and system capabilities. Strategic efforts include:

- U.S. Cellular offers economical and competitively priced service plans and devices to its customers and is focused on increasing revenues from sales of related products such as accessories and device protection plans and from new services such as LTE home internet. In addition, U.S. Cellular is focused on expanding its solutions available to business and government customers, including a growing suite of connected machine-to-machine solutions and software applications across various categories.

- U.S. Cellular continues to devote efforts to enhance its network capabilities. VoLTE technology is now available to nearly 70% of U.S Cellular's subscribers, and deployments in additional operating markets are expected in 2020 and 2021. VoLTE technology allows customers to utilize a 4G LTE network for both voice and data services and offers enhanced services such as high definition voice and simultaneous voice and data sessions.

- U.S. Cellular has begun to deploy 5G technology in its network and expects to launch commercial 5G services in selected markets in 2020. 5G technology is expected to help address customers' growing demand for data services as well as create opportunities for new services requiring high speed, reliability and low latency. U.S. Cellular is working with leading companies in the wireless infrastructure and handset ecosystem to provide rich 5G experiences for customers, initially focused on mobility services and using its low band spectrum. At the same time, as discussed below, U.S. Cellular has begun acquiring high band spectrum to enable the delivery of additional 5G services in the future. In addition to the deployment of 5G technology, U.S. Cellular is also modernizing its 4G LTE network to further enhance 4G LTE speeds.

- U.S. Cellular assesses its existing wireless interests on an ongoing basis with a goal of improving the competitiveness of its operations and maximizing its long-term return on capital. As part of this strategy, U.S. Cellular actively seeks attractive opportunities to acquire wireless spectrum, including pursuant to FCC auctions. In June 2019, the FCC announced that U.S. Cellular was the provisional winning bidder for 408 wireless spectrum licenses in its 28 GHz auction (Auction 101) and 282 wireless spectrum licenses in its 24 GHz auction (Auction 102) for an aggregate purchase price of $256 million. The wireless spectrum licenses from Auction 101 were granted by the FCC on October 2, 2019, and the wireless spectrum licenses from Auction 102 were granted by the FCC on December 11, 2019. On July 11, 2019, the FCC released a Public Notice establishing procedures for an auction offering wireless spectrum licenses in the 37, 39 and 47 GHz bands (Auction 103). Auction 103 is offering 34 100 MHz blocks in the Upper 37 GHz, 39 GHz, and 47 GHz bands in all Partial Economic Areas. On September 9, 2019, U.S. Cellular filed an application to participate in Auction 103 and was announced as a qualified bidder on October 31, 2019. Bidding in this auction commenced on December 10, 2019. The initial phase of this auction closed on January 30, 2020 and the assignment phase commenced on February 18, 2020.

Terms Used by U.S. Cellular

The following is a list of definitions of certain industry terms that are used throughout this document:

- **4G LTE** – fourth generation Long-Term Evolution, which is a wireless technology that enables more network capacity for more data per user as well as faster access to data compared to third generation (3G) technology.
- **5G** – fifth generation wireless technology that is expected to help address customers' growing demand for data services as well as create opportunities for new services requiring high speed and reliability as well as low latency.
- **Account** – represents an individual or business financially responsible for one or multiple associated connections. An account may include a variety of types of connections such as handsets and connected devices.
- **Auctions 101, 102, and 103** – Auction 101 was an FCC auction of 28 GHz wireless spectrum licenses that started in November 2018 and concluded in January 2019. Auction 102 was an FCC auction of 24 GHz wireless spectrum licenses that started in March 2019 and concluded in May 2019. Auction 103 is an FCC auction of 37, 39, and 47 GHz wireless spectrum licenses that started in December 2019. The spectrum auctioned in each of these auctions, referred to as Millimeter Wave spectrum, is expected to be used primarily to deliver 5G technology.
- **Churn Rate** – represents the percentage of the connections that disconnect service each month. These rates represent the average monthly churn rate for each respective period.
- **Connections** - individual lines of service associated with each device activated by a customer. Connections are associated with all types of devices that connect directly to the U.S. Cellular network.
- **Connected Devices** – non-handset devices that connect directly to the U.S. Cellular network. Connected devices include products such as tablets, wearables, modems, and hotspots.
- **EBITDA** – refers to earnings before interest, taxes, depreciation, amortization and accretion and is used in the non-GAAP metric Adjusted EBITDA throughout this document. See Supplemental Information Relating to Non-GAAP Financial Measures within this MD&A for additional information.
- **Eligible Telecommunications Carrier (ETC)** – designation by states for providing specified services in "high cost" areas which enables participation in universal service support mechanisms.
- **Free Cash Flow** – non-GAAP metric defined as Cash flows from operating activities less Cash paid for additions to property, plant and equipment. See Supplemental Information Relating to Non-GAAP Financial Measures within this MD&A for additional information.
- **Gross Additions** – represents the total number of new connections added during the period, without regard to connections that were terminated during that period.
- **Net Additions (Losses)** – represents the total number of new connections added during the period, net of connections that were terminated during that period.
- **OIBDA** – refers to operating income before depreciation, amortization and accretion and is used in the non-GAAP metric Adjusted OIBDA throughout this document. See Supplemental Information Relating to Non-GAAP Financial Measures within this MD&A for additional information.
- **Partial Economic Areas** – service areas of certain FCC wireless spectrum licenses based on geography.
- **Postpaid Average Revenue per Account (Postpaid ARPA)** – metric which is calculated by dividing total postpaid service revenues by the average number of postpaid accounts and by the number of months in the period.
- **Postpaid Average Revenue per User (Postpaid ARPU)** – metric which is calculated by dividing total postpaid service revenues by the average number of postpaid connections and by the number of months in the period.
- **Retail Connections** – the sum of postpaid connections and prepaid connections.
- **Tax Act** – refers to comprehensive federal tax legislation enacted on December 22, 2017, which made broad changes to the U.S. tax code. Now titled H.R.1, the Tax Act was originally identified as the Tax Cuts and Jobs Act of 2017.
- **Universal Service Fund (USF)** – a system of telecommunications collected fees and support payments managed by the FCC intended to promote universal access to telecommunications services in the United States.
- **VoLTE** – Voice over Long-Term Evolution is a technology specification that defines the standards and procedures for delivering voice communications and related services over 4G LTE networks.

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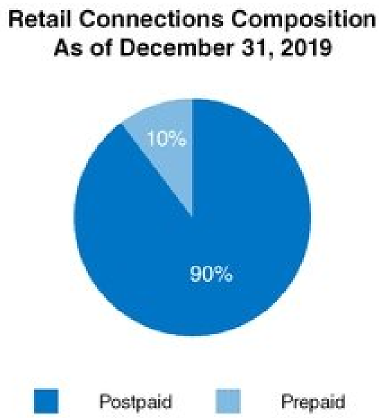
Operational Overview



As of December 31,	2019	2018
Retail Connections – End of Period		
Postpaid	**4,383,000**	4,472,000
Prepaid	**506,000**	516,000
Total	**4,889,000**	4,988,000

Year Ended December 31,	2019	2018	2019 vs. 2018
Postpaid Activity and Churn			
Gross Additions			
Handsets	**458,000**	475,000	(4)%
Connected Devices	**148,000**	150,000	(1)%
Total Gross Additions	**606,000**	625,000	(3)%
Net Additions (Losses)			
Handsets	**(24,000)**	23,000	N/M
Connected Devices	**(65,000)**	(69,000)	6 %
Total Net Additions (Losses)	**(89,000)**	(46,000)	(93)%
Churn			
Handsets	**1.04%**	0.98%	
Connected Devices	**3.24%**	2.96%	
Total Churn	**1.31%**	1.25%	

Postpaid net losses increased in 2019 due to lower handset gross additions and higher handset defections, which are due primarily to aggressive industry-wide competition on both service plans and devices.

Total postpaid churn increased in 2019 due primarily to higher handset defections.

Postpaid Revenue

Year Ended December 31,	2019	2018	2019 vs. 2018
Average Revenue Per User (ARPU)	**$ 46.01**	$ 44.98	2%
Average Revenue Per Account (ARPA)	**$ 119.80**	$ 118.93	1%

Postpaid ARPU and Postpaid ARPA increased in 2019 due primarily to (i) having proportionately more handset connections, which on a per-unit basis contribute more revenue than connected devices, (ii) a shift to higher priced service plans, and (iii) an increase in device protection plan revenue. Such factors were partially offset by an increase in sales promotion costs.

Financial Overview

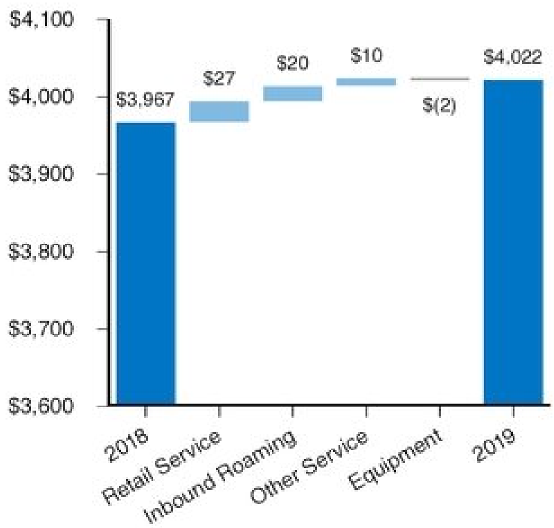
Year Ended December 31,	2019	2018	2019 vs. 2018
(Dollars in millions)			
Retail service	**$ 2,650**	$ 2,623	1 %
Inbound roaming	**174**	154	13 %
Other	**211**	201	5 %
Service revenues	**3,035**	2,978	2 %
Equipment sales	**987**	989	–
Total operating revenues	**4,022**	3,967	1 %
System operations (excluding Depreciation, amortization and accretion reported below)	**756**	758	–
Cost of equipment sold	**1,028**	1,031	–
Selling, general and administrative	**1,406**	1,388	1 %
Depreciation, amortization and accretion	**702**	640	10 %
(Gain) loss on asset disposals, net	**19**	10	80 %
(Gain) loss on sale of business and other exit costs, net	**(1)**	—	N/M
(Gain) loss on license sales and exchanges, net	**—**	(18)	98 %
Total operating expenses	**3,910**	3,809	3 %
Operating income	**$ 112**	$ 158	(29)%
Net income	**$ 133**	$ 164	(19)%
Adjusted OIBDA (Non-GAAP)[1]	**$ 832**	$ 790	5 %
Adjusted EBITDA (Non-GAAP)[1]	**$ 1,015**	$ 963	5 %
Capital expenditures[2]	**$ 710**	$ 515	38 %

N/M - Percentage change not meaningful

1 Refer to Supplemental Information Relating to Non-GAAP Financial Measures within this MD&A for a reconciliation of this measure.

2 Refer to Liquidity and Capital Resources within this MD&A for additional information on Capital expenditures.

Operating Revenues
(Dollars in millions)



Service revenues consist of:

- Retail Service – Charges for voice, data and value added services and recovery of regulatory costs
- Inbound Roaming – Charges to other wireless carriers whose customers use U.S. Cellular's wireless systems when roaming
- Other Service – Amounts received from the Federal USF, tower rental revenues, and miscellaneous other service revenues

Equipment revenues consist of:

- Sales of wireless devices and related accessories to new and existing customers, agents, and third-party distributors

Key components of changes in the statement of operations line items were as follows:

Total operating revenues

Retail service revenues increased in 2019 primarily as a result of the increase in Postpaid ARPU as previously discussed in the Operational Overview section.

Inbound roaming revenues increased in 2019 primarily driven by data revenues, with significantly higher usage partially offset by lower rates.

Other service revenues increased in 2019, due primarily to an increase in tower rental revenues resulting from (i) an increase in new agreements and increases in rental rates and (ii) an out-of-period adjustment recorded in the third quarter of 2019. See Note 10 — Leases in the Notes to Consolidated Financial Statements for additional information.

Selling, general and administrative expenses

Selling, general and administrative expenses increased in 2019 due primarily to an increase in costs driven by information system initiatives, as well as an increase in bad debts expense.

Depreciation, amortization and accretion

Depreciation, amortization, and accretion increased in 2019 due to (i) additional network assets being placed into service and (ii) accelerated depreciation of certain assets due to changes in network technology, which will continue in 2020 and beyond.

(Gain) loss on asset disposals, net

Loss on asset disposals, net increased in 2019 due primarily to the disposal of technologically obsolete equipment.

(Gain) loss on license sales and exchanges, net

Net gains in 2018 were due to license sale and exchange transactions with various third parties.

Components of Other Income (Expense)

Year Ended December 31,	2019	2018	2019 vs. 2018
(Dollars in millions)			
Operating income	**$ 112**	$ 158	(29)%
Equity in earnings of unconsolidated entities	**166**	159	5 %
Interest and dividend income	**17**	15	17 %
Interest expense	**(110)**	(116)	5 %
Other, net	**—**	(1)	N/M
Total investment and other income	**73**	57	26 %
Income before income taxes	**185**	215	(14)%
Income tax expense	**52**	51	2 %
Net income	**133**	164	(19)%
Less: Net income attributable to noncontrolling interests, net of tax	**6**	14	(60)%
Net income attributable to U.S. Cellular shareholders	**$ 127**	$ 150	(15)%

N/M - Percentage change not meaningful

Equity in earnings of unconsolidated entities

Equity in earnings of unconsolidated entities represents U.S. Cellular’s share of net income from entities in which it has a noncontrolling interest and that are accounted for using the equity method. U.S. Cellular’s investment in the Los Angeles SMSA Limited Partnership (LA Partnership) contributed $78 million and $77 million in earnings of unconsolidated entities in 2019 and 2018, respectively. See Note 8 — Investments in Unconsolidated Entities in the Notes to Consolidated Financial Statements for additional information.

Interest Expense

Interest expense decreased in 2019 primarily as a result of a higher amount of capitalized interest. Also contributing to the decrease was a $100 million principal prepayment made in October 2019 on a senior term loan. See Note 12 — Debt in the Notes to Consolidated Financial Statements for additional information.

Income tax expense

The effective tax rate on Income before income taxes for 2019 was 28.1%. The effective tax rate includes the impact of federal and state tax, as well as other increases due primarily to nondeductible interest expenses.

The effective tax rate on Income before income taxes for 2018 was 23.7%, which was consistent with a normalized tax rate inclusive of federal and state tax.

See Note 5 — Income Taxes in the Notes to Consolidated Financial Statements for additional information.

Net income attributable to noncontrolling interests, net of tax

Net income attributable to noncontrolling interests, net of tax decreased in 2019, due primarily to an out-of-period adjustment recorded in the first quarter of 2018. See Note 14 — Variable Interest Entities in the Notes to Consolidated Financial Statements for additional information.

Liquidity and Capital Resources

Sources of Liquidity

U.S. Cellular operates a capital-intensive business. Historically, U.S. Cellular has used internally-generated funds and also has obtained substantial funds from external sources for general corporate purposes. In the past, U.S. Cellular's existing cash and investment balances, funds available under its revolving credit and receivables securitization agreements, funds from other financing sources, including a term loan and other long-term debt, and cash flows from operating and certain investing and financing activities, including sales of assets or businesses, provided sufficient liquidity and financial flexibility for U.S. Cellular to meet its normal day-to-day operating needs and debt service requirements, to finance the build-out and enhancement of markets and to fund acquisitions, primarily of wireless spectrum licenses. There is no assurance that this will be the case in the future. See Market Risk for additional information regarding maturities of long-term debt.

U.S. Cellular has incurred negative free cash flow at times in the past and this could occur in the future. However, U.S. Cellular believes that existing cash and investment balances, funds available under its revolving credit and receivables securitization agreements, and expected cash flows from operating and investing activities will provide sufficient liquidity for U.S. Cellular to meet its normal day-to-day operating needs and debt service requirements for the coming year.

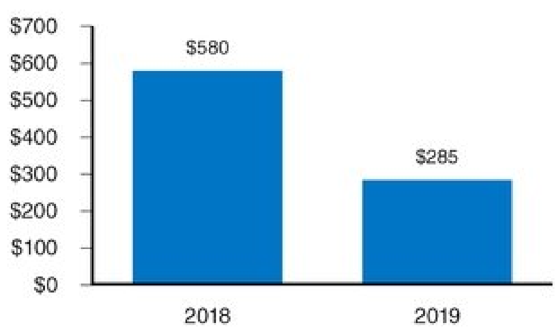
U.S. Cellular may require substantial additional capital for, among other uses, funding day-to-day operating needs including working capital, acquisitions of providers of wireless telecommunications services, wireless spectrum license or system acquisitions, capital expenditures, debt service requirements, the repurchase of shares, the payment of dividends, or making additional investments. It may be necessary from time to time to increase the size of the existing revolving credit agreements, to put in place new credit agreements, or to obtain other forms of financing in order to fund potential expenditures. U.S. Cellular expects to participate in a wireless spectrum auction in 2020 (see Regulatory Matters - Millimeter Wave Spectrum Auctions) and also expects capital expenditures in 2020 to be higher than in 2019, due primarily to investments to enhance network speed and capacity and to continue deploying VoLTE and 5G technology on its network. U.S. Cellular's liquidity would be adversely affected if, among other things, U.S. Cellular is unable to obtain financing on acceptable terms, U.S. Cellular makes significant wireless spectrum license purchases, the LA Partnership discontinues or significantly reduces distributions compared to historical levels, or Federal USF and/or other regulatory support payments decline.

U.S. Cellular's credit rating currently is sub-investment grade. There can be no assurance that sufficient funds will continue to be available to U.S. Cellular or its subsidiaries on terms or at prices acceptable to U.S. Cellular. Insufficient cash flows from operating activities, changes in U.S. Cellular's credit ratings, defaults of the terms of debt or credit agreements, uncertainty of access to capital, deterioration in the capital markets, reduced regulatory capital at banks which in turn limits their ability to borrow and lend, other changes in the performance of U.S. Cellular or in market conditions or other factors could limit or restrict the availability of financing on terms and prices acceptable to U.S. Cellular, which could require U.S. Cellular to reduce its acquisition, capital expenditure and business development programs, reduce the acquisition of wireless spectrum licenses, and/or reduce or cease share repurchases. Any of the foregoing developments would have an adverse impact on U.S. Cellular's business, financial condition or results of operations. U.S. Cellular cannot provide assurance that circumstances that could have a material adverse effect on its liquidity or capital resources will not occur.

Cash and Cash Equivalents

Cash and cash equivalents include cash and money market investments. The primary objective of U.S. Cellular's Cash and cash equivalents is for use in its operations and acquisition, capital expenditure and business development programs.

Cash and Cash Equivalents
(Dollars in millions)



At December 31, 2019, U.S. Cellular's Cash and cash equivalents totaled $285 million compared to $580 million at December 31, 2018.

The majority of U.S. Cellular's Cash and cash equivalents are held in bank deposit accounts and in money market funds that purchase only debt issued by the U.S. Treasury or U.S. government agencies across a range of eligible money market investments that may include, but are not limited to, government agency repurchase agreements, government agency debt, U.S. Treasury repurchase agreements, U.S. Treasury debt, and other securities collateralized by U.S. government obligations. U.S. Cellular monitors the financial viability of the money market funds and the financial institutions with which U.S. Cellular has deposits and believes that the credit risk associated with these funds and institutions is low.

Financing

Revolving Credit Agreement

U.S. Cellular has an unsecured revolving credit agreement available for general corporate purposes including wireless spectrum license purchases and capital expenditures. In May 2018, U.S. Cellular entered into a $300 million revolving credit agreement with certain lenders and other parties. Amounts under the revolving credit agreement may be borrowed, repaid and reborrowed from time to time until maturity in May 2023. As of December 31, 2019, there were no outstanding borrowings under the revolving credit agreement, except for letters of credit, and U.S. Cellular's unused capacity under its revolving credit agreement was $298 million.

See Note 12 — Debt in the Notes to Consolidated Financial Statements for additional information regarding the revolving credit agreement.

Term Loan

In January 2015, U.S. Cellular entered into an unsecured senior term loan credit agreement. This agreement was entered into for general corporate purposes, including working capital, spectrum purchases and capital expenditures. In July 2015, U.S. Cellular borrowed the full amount of $225 million available under this agreement in two separate draws. This term loan credit agreement was amended and restated in June 2016, and further amended in May 2018 and March 2019. In October 2019, U.S. Cellular made a $100 million principal prepayment on the outstanding balance of the loan. The remaining unpaid balance will be due and payable in January 2022.

See Note 12 — Debt in the Notes to Consolidated Financial Statements for additional information regarding the term loan.

Receivables Securitization Agreement

In December 2017, U.S. Cellular, through its subsidiaries, entered into a $200 million credit agreement to permit securitized borrowings using its equipment installment receivables for general corporate purposes. In September 2019, U.S. Cellular amended this agreement extending the expiration date of the agreement to December 15, 2021. There were no significant changes to other key terms of the agreement. U.S. Cellular entered into a performance guaranty whereby U.S. Cellular guarantees the performance of certain wholly-owned subsidiaries of U.S. Cellular under the agreement. Amounts under the receivables securitization agreement may be borrowed, repaid and reborrowed from time to time until maturity in December 2021, which may be extended from time to time as specified therein. As of December 31, 2019, there were no outstanding borrowings under the receivables securitization agreement, and the entire unused capacity of $200 million was available, subject to sufficient collateral to satisfy the asset borrowing base provisions of the agreement.

See Note 12 — Debt in the Notes to Consolidated Financial Statements for additional information regarding the receivables securitization agreement.

Financial Covenants

The revolving credit agreement, senior term loan agreement and receivables securitization agreement require U.S. Cellular to comply with certain affirmative and negative covenants, which include certain financial covenants. In particular, under these agreements, U.S. Cellular is required to maintain the Consolidated Interest Coverage Ratio at a level not lower than 3.00 to 1.00 as of the end of any fiscal quarter. U.S. Cellular also was required to maintain the Consolidated Leverage Ratio at a level not to exceed 3.25 to 1.00 as of the end of any fiscal quarter through June 30, 2019. From July 1, 2019 and thereafter, the Consolidated Leverage Ratio is not to exceed 3.00 to 1.00 as of the end of any fiscal quarter. U.S. Cellular believes that it was in compliance as of December 31, 2019, with all such financial covenants.

Other Long-Term Financing

U.S. Cellular has an effective shelf registration statement on Form S-3 to issue senior or subordinated debt securities. The proceeds from any such issuance may be used for general corporate purposes, including: the possible reduction of other short-term or long-term debt; spectrum purchases; capital expenditures; acquisition, construction and development programs; working capital; additional investments in subsidiaries; or the repurchase of shares. The U.S. Cellular shelf registration statement permits U.S. Cellular to issue at any time and from time to time senior or subordinated debt securities in one or more offerings, up to the amount registered, which is currently $500 million. The ability of U.S. Cellular to complete an offering pursuant to such shelf registration statement is subject to market conditions and other factors at the time.

U.S. Cellular believes that it was in compliance as of December 31, 2019, with all covenants and other requirements set forth in the U.S. Cellular long-term debt indentures. The U.S. Cellular long-term debt indentures do not include any financial covenants. U.S. Cellular has not failed to make nor does it expect to fail to make any scheduled payment of principal or interest under such indentures.

Refer to Market Risk — Long-Term Debt for additional information regarding required principal payments and the weighted average interest rates related to U.S. Cellular's Long-term debt.

U.S. Cellular, at its discretion, may from time to time seek to retire or purchase its outstanding debt through cash purchases and/or exchanges for other securities, in open market purchases, privately negotiated transactions, tender offers, exchange offers or otherwise. Such repurchases or exchanges, if any, will depend on prevailing market conditions, liquidity requirements, contractual restrictions and other factors. The amounts involved may be material.

See Note 12 — Debt in the Notes to Consolidated Financial Statements for additional information on long-term financing.

Credit Ratings

In certain circumstances, U.S. Cellular's interest cost on its revolving credit and term loan agreements may be subject to increase if its current credit ratings from nationally recognized credit rating agencies are lowered, and may be subject to decrease if the ratings are raised. U.S. Cellular's agreements do not cease to be available nor do the maturity dates accelerate solely as a result of a downgrade in credit rating. However, a downgrade in U.S. Cellular's credit rating could adversely affect its ability to renew the agreements or obtain access to other credit agreements in the future.

U.S. Cellular is rated at sub-investment grade. U.S. Cellular's credit ratings as of December 31, 2019, and the dates such ratings were re-affirmed were as follows:

Rating Agency	Rating	Outlook
Moody's (re-affirmed September 2019)	Ba1	stable outlook
Standard & Poor's (re-affirmed October 2019)	BB	stable outlook
Fitch Ratings (re-affirmed June 2019)	BB+	stable outlook

Capital Requirements

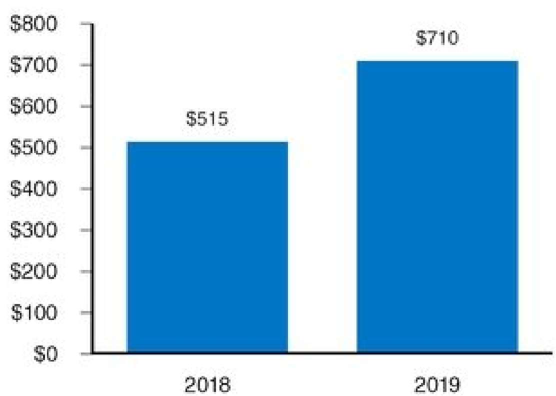
The discussion below is intended to highlight some of the significant cash outlays expected during 2020 and beyond and to highlight the spending incurred in prior years for these items. This discussion does not include cash required to fund normal operations, and is not a comprehensive list of capital requirements. Significant cash requirements that are not routine or in the normal course of business could arise from time to time.

Capital Expenditures

U.S. Cellular makes substantial investments to acquire, construct and upgrade wireless telecommunications networks and facilities to remain competitive and as a basis for creating long-term value for shareholders. In recent years, rapid changes in technology and new opportunities (such as 5G and VoLTE technology) have required substantial investments in potentially revenue-enhancing and cost-saving upgrades of U.S. Cellular's networks to remain competitive; this is expected to continue in 2020 and future years with the continued deployment of 5G technology and VoLTE.

Capital expenditures (i.e., additions to property, plant and equipment and system development expenditures; excludes wireless spectrum license additions), which include the effects of accruals and capitalized interest, in 2019 and 2018 were as follows:

Capital Expenditures
(Dollars in millions)



U.S. Cellular's capital expenditures in 2019 were $710 million compared to $515 million in 2018. In 2019, these capital expenditures were used for the following purposes:

- Enhance and maintain U.S. Cellular's network coverage, including continuing to deploy VoLTE technology in certain markets and providing additional speed and capacity to accommodate increased data usage by current customers;
- Begin deploying 5G technology on its network; and
- Invest in information technology to support existing and new services and products.

U.S. Cellular's capital expenditures for 2020 are expected to be between $850 million and $950 million. These expenditures are expected to be used for similar purposes as those listed above.

U.S. Cellular intends to finance its capital expenditures for 2020 using primarily Cash flows from operating activities, existing cash balances and, if required, its receivables securitization and/or revolving credit agreements.

Acquisitions, Divestitures and Exchanges

U.S. Cellular may be engaged from time to time in negotiations (subject to all applicable regulations) relating to the acquisition, divestiture or exchange of companies, properties or wireless spectrum licenses. In general, U.S. Cellular may not disclose such transactions until there is a definitive agreement. U.S. Cellular assesses its existing wireless interests on an ongoing basis with a goal of improving the competitiveness of its operations and increasing its long-term return on capital. As part of this strategy, U.S. Cellular actively seeks attractive opportunities to acquire wireless spectrum licenses, including pursuant to FCC auctions.

In June 2019, the FCC announced by way of public notice that U.S. Cellular was the provisional winning bidder for 408 wireless spectrum licenses in its 28 GHz auction (Auction 101) and 282 wireless spectrum licenses in its 24 GHz auction (Auction 102) for an aggregate purchase price of $256 million. U.S. Cellular paid substantially all of the $256 million in the first half of 2019. The wireless spectrum licenses from Auction 101 were granted by the FCC on October 2, 2019, and the wireless spectrum licenses from Auction 102 were granted by the FCC on December 11, 2019.

Total Cash paid for licenses was $266 million and $8 million in 2019 and 2018, respectively.

Subsequent to December 31, 2019, U.S. Cellular committed to purchase assets in the amount of $146 million, subject to regulatory approval.

U.S. Cellular also may seek to divest outright or include in exchanges for other wireless interests those interests that are not strategic to its long-term success. Total Cash received from divestitures and exchanges was $41 million and $24 million in 2019 and 2018, respectively.

Variable Interest Entities

U.S. Cellular consolidates certain “variable interest entities” as defined under GAAP. See Note 14 — Variable Interest Entities in the Notes to Consolidated Financial Statements for additional information related to these variable interest entities. U.S. Cellular may elect to make additional capital contributions and/or advances to these variable interest entities in future periods in order to fund their operations.

Common Share Repurchase Program

During 2019, U.S. Cellular repurchased 590,300 Common Shares for $21 million at an average cost per share of $35.45. At December 31, 2019, the total cumulative amount of U.S. Cellular Common Shares authorized to be purchased is 5,311,000.

Depending on its future financial performance, construction, development and acquisition programs, and available sources of financing, U.S. Cellular may not have sufficient liquidity or capital resources to make significant share repurchases. Therefore, there is no assurance that U.S. Cellular will make any significant share repurchases in the future.

For additional information related to the current repurchase authorization, see Note 16 — Common Shareholders’ Equity in the Notes to Consolidated Financial Statements.

Off-Balance Sheet Arrangements

U.S. Cellular had no transactions, agreements or other contractual arrangements with unconsolidated entities involving “off-balance sheet arrangements,” as defined by SEC rules, that had or are reasonably likely to have a material current or future effect on its financial condition, results of operations, liquidity, capital expenditures or capital resources.

Contractual and Other Obligations

At December 31, 2019, the resources required for contractual obligations were as follows:

		Payments Due by Period			
	Total	Less Than 1 Year	1 - 3 Years	3 - 5 Years	More Than 5 Years
(Dollars in millions)					
Long-term debt obligations[1]	$ 1,551	$ 7	$ 83	$ —	$ 1,461
Interest payments on long-term debt obligations	3,333	105	207	204	2,817
Operating leases[2, 3]	1,344	145	274	209	716
Finance leases[2]	14	1	1	1	11
Purchase obligations[4]	2,244	924	1,184	100	36
	$ 8,486	$ 1,182	$ 1,749	$ 514	$ 5,041

1 Includes current and long-term portions of debt obligations. The total long-term debt obligation differs from Total long-term debt, net due to finance leases, debt issuance costs and unamortized discounts. See Note 12 — Debt in the Notes to Consolidated Financial Statements for additional information.

2 Includes future lease costs related to office space, retail sites, cell sites and equipment. See Note 10 — Leases in the Notes to Consolidated Financial Statements for additional information.

3 Includes $7 million of legally binding lease payments for leases signed but not yet commenced and excludes $20 million of legally binding lease payments for leases signed but not yet commenced for which the payment timing is unknown.

4 Includes obligations payable under non-cancellable contracts, commitments for device purchases, network facilities and transport services, agreements for software licensing, long-term marketing programs, as well as certain agreements to purchase goods or services. For certain contracts, U.S. Cellular calculates its obligation based on termination fees that can be paid to exit the contract.

The table above excludes potential liabilities related to “unrecognized tax benefits” as defined by GAAP because U.S. Cellular is unable to predict the outcome or period of settlement of such liabilities. Such unrecognized tax benefits were $48 million at December 31, 2019. See Note 5 — Income Taxes in the Notes to Consolidated Financial Statements for additional information.

See Note 13 — Commitments and Contingencies in the Notes to Consolidated Financial Statements for additional information.

Consolidated Cash Flow Analysis

U.S. Cellular operates a capital- and marketing-intensive business. U.S. Cellular makes substantial investments to acquire wireless spectrum licenses and properties and to construct and upgrade wireless telecommunications networks and facilities as a basis for creating long-term value for shareholders. In recent years, rapid changes in technology and new opportunities have required substantial investments in potentially revenue-enhancing and cost-saving upgrades to U.S. Cellular's networks. U.S. Cellular utilizes cash on hand, cash from operating activities, cash proceeds from divestitures and dispositions of investments, and short-term and long-term debt financing to fund its acquisitions (including wireless spectrum licenses), construction costs, operating expenses and share repurchases. Cash flows may fluctuate from quarter to quarter and year to year due to seasonality, the timing of acquisitions and divestitures, capital expenditures and other factors. The following discussion summarizes U.S. Cellular's cash flow activities in 2019 and 2018.

2019 Commentary

U.S. Cellular's Cash, cash equivalents and restricted cash decreased $292 million. Net cash provided by operating activities was $724 million due to net income of $133 million plus non-cash items of $702 million and distributions received from unconsolidated entities of $161 million, including $75 million in distributions from the LA Partnership. This was offset by changes in working capital items which decreased net cash by $272 million. The more significant working capital changes were increases in accounts receivables and equipment installment plan receivables and decreases in accounts payable and accrued taxes.

Cash flows used for investing activities were $864 million. Cash paid for additions to property, plant and equipment totaled $650 million and Cash paid for licenses totaled $266 million. This was partially offset by cash received from the redemption of short-term Treasury bills of $29 million and Cash received from divestitures and exchanges of $41 million.

Cash flows used for financing activities were $152 million, reflecting a $100 million principal prepayment on the senior term loan, the repurchase of $21 million of Common Shares and ordinary activity such as the scheduled repayments of debt.

2018 Commentary

U.S. Cellular's Cash, cash equivalents and restricted cash increased $231 million. Net cash provided by operating activities was $709 million due to net income of $164 million plus non-cash items of $605 million and distributions received from unconsolidated entities of $152 million, including $68 million in distributions from the LA Partnership. This was partially offset by changes in working capital items which decreased net cash by $212 million. The working capital changes were influenced primarily by a $149 million increase in equipment installment plan receivables.

Cash flows used for investing activities were $464 million. Cash paid for additions to property, plant and equipment totaled $512 million. This was partially offset by cash received from the redemption of short-term Treasury bills of $50 million.

Cash flows used for financing activities were $14 million, reflecting ordinary activity such as the scheduled repayments of debt.

Consolidated Balance Sheet Analysis

The following discussion addresses certain captions in the consolidated balance sheet and changes therein. This discussion is intended to highlight the significant changes and is not intended to fully reconcile the changes. Changes in financial condition during 2019 were as follows:

Cash and cash equivalents

See the Consolidated Cash Flow Analysis above for a discussion of cash and cash equivalents.

Income taxes receivable

Income taxes receivable increased $31 million due to estimated tax payments made in excess of the tax liability for the year. See Note 5 — Income Taxes in the Notes to Consolidated Financial Statements for additional information.

Assets held for sale

Assets held for sale decreased $54 million. Certain sale and exchange agreements that U.S. Cellular entered into in 2018 closed in the first quarter of 2019.

Licenses

Licenses increased $285 million due primarily to wireless spectrum licenses acquired through FCC auctions. See Note 7 — Intangible Assets in the Notes to Consolidated Financial Statements for additional information.

Operating lease right-of-use assets

Operating lease right-of-use assets increased $900 million due to the adoption of Accounting Standards Codification (ASC) 842. See Note 10 — Leases in the Notes to Consolidated Financial Statements for additional information.

Short-term operating lease liabilities

Short-term operating lease liabilities increased $105 million due to the adoption of ASC 842. See Note 10 — Leases in the Notes to Consolidated Financial Statements for additional information.

Long-term operating lease liabilities

Long-term operating lease liabilities increased $865 million due to the adoption of ASC 842. See Note 10 — Leases in the Notes to Consolidated Financial Statements for additional information.

Other deferred liabilities and credits

Other deferred liabilities and credits decreased $70 million due primarily to the adoption of ASC 842. See Note 10 — Leases in the Notes to Consolidated Financial Statements for additional information.

Application of Critical Accounting Policies and Estimates

U.S. Cellular prepares its consolidated financial statements in accordance with GAAP. U.S. Cellular's significant accounting policies are discussed in detail in Note 1 — Summary of Significant Accounting Policies and Recent Accounting Pronouncements, Note 2 — Revenue Recognition and Note 10 — Leases in the Notes to Consolidated Financial Statements.

Management believes the application of the following critical accounting policies and the estimates required by such application reflect its most significant judgments and estimates used in the preparation of U.S. Cellular's consolidated financial statements.

Wireless Spectrum Licenses

Wireless spectrum licenses represent a significant component of U.S. Cellular's consolidated assets. Wireless spectrum licenses are considered to be indefinite-lived assets and, therefore, are not amortized but rather are tested at least annually for impairment. Significant negative events, such as changes in any of the assumptions described below as well as decreases in forecasted cash flows, could result in an impairment in future periods. Wireless spectrum licenses are tested for impairment at the level of reporting referred to as a unit of accounting.

U.S. Cellular performs its annual impairment assessment of wireless spectrum licenses as of November 1 of each year, or more frequently if there are events or circumstances that cause U.S. Cellular to believe it is more likely than not that the carrying value of wireless spectrum licenses exceeds fair value. For purposes of its impairment testing, U.S. Cellular separated its FCC wireless spectrum licenses into eight units of accounting, which consisted of one unit of accounting for developed operating market wireless spectrum licenses (built wireless spectrum licenses) and seven geographic non-operating market wireless spectrum licenses (unbuilt wireless spectrum licenses). U.S. Cellular performed a quantitative impairment assessment in 2019, and a qualitative impairment assessment in 2018, to determine whether an impairment existed.

In 2019, a market approach was used to value the wireless spectrum license portfolio. Within each unit of accounting, the wireless spectrum licenses were pooled by type and by geographic area. The market approach calculates estimated market values using observable pricing multiples from wireless spectrum license purchase and auction transactions to estimate fair value for each pool of wireless spectrum licenses. The sum of the fair values of each of the pools represents the estimated fair value of U.S. Cellular's wireless spectrum licenses. The most significant assumption made in this process was the pricing multiples, which are units of value expressed in relation to the bandwidth and population covered by a wireless spectrum license. Based on the assessment, the fair values of the wireless spectrum license units of accounting exceeded their respective carrying values by amounts ranging from 39% to greater than 100%. It was determined that the carrying value of wireless spectrum licenses acquired through Auction 101 and 102 approximated fair value based on the recency of the auctions. Therefore, no impairment of wireless spectrum licenses existed.

In 2018, U.S. Cellular considered several qualitative factors, including analysts' estimates of wireless spectrum license values which contemplated recent spectrum auction results, recent U.S. Cellular and other market participant transactions and other industry and market factors. Based on this assessment, U.S. Cellular concluded that it was more likely than not that the fair value of the wireless spectrum licenses in each unit of accounting exceeded their respective carrying values. Therefore, no impairment of wireless spectrum licenses existed and no Step 1 quantitative impairment evaluation was completed.

See Note 7 — Intangible Assets in the Notes to Consolidated Financial Statements for information related to wireless spectrum licenses activity in 2019 and 2018.

Income Taxes

U.S. Cellular is included in a consolidated federal income tax return with other members of the TDS consolidated group. TDS and U.S. Cellular are parties to a Tax Allocation Agreement which provides that U.S. Cellular and its subsidiaries be included with the TDS affiliated group in a consolidated federal income tax return and in state income or franchise tax returns in certain situations. For financial statement purposes, U.S. Cellular and its subsidiaries calculate their income, income tax and credits as if they comprised a separate affiliated group. Under the Tax Allocation Agreement between TDS and U.S. Cellular, U.S. Cellular remits its applicable income tax payments to TDS.

The amounts of income tax assets and liabilities, the related income tax provision and the amount of unrecognized tax benefits are critical accounting estimates because such amounts are significant to U.S. Cellular's financial condition and results of operations.

The preparation of the consolidated financial statements requires U.S. Cellular to calculate a provision for income taxes. This process involves estimating the actual current income tax liability together with assessing temporary differences resulting from the different treatment of items for tax purposes. These temporary differences result in deferred income tax assets and liabilities, which are included in U.S. Cellular's Consolidated Balance Sheet. U.S. Cellular must then assess the likelihood that deferred income tax assets will be realized based on future taxable income and, to the extent management believes that realization is not likely, establish a valuation allowance. Management's judgment is required in determining the provision for income taxes, deferred income tax assets and liabilities and any valuation allowance that is established for deferred income tax assets.

U.S. Cellular recognizes the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities based on the technical merits of the position. The tax benefits recognized in the financial statements from such a position are measured based on management's judgment as to the possible outcome that has a greater than 50% cumulative likelihood of being realized upon ultimate resolution.

See Note 5 — Income Taxes in the Notes to Consolidated Financial Statements for additional information.

Other Items

Inflation

Management believes that inflation affects U.S. Cellular's business to no greater or lesser extent than the general economy.

Seasonality

U.S. Cellular's profitability historically has been lower in the fourth quarter as a result of significant marketing and promotional activity during the holiday season.

Recently Issued Accounting Pronouncements

See Note 1 — Summary of Significant Accounting Policies and Recent Accounting Pronouncements and Note 10 — Leases in the Notes to Consolidated Financial Statements for information on recently issued accounting pronouncements.

Certain Relationships and Related Transactions

See Note 19 — Certain Relationships and Related Transactions in the Notes to Consolidated Financial Statements.

Regulatory Matters

FCC Mobility Fund/5G Fund

In October 2011, the FCC adopted its USF/Intercarrier Compensation Transformation Order (USF Order). Pursuant to this order, U.S. Cellular's then current Federal USF support was to be phased down at the rate of 20% per year beginning July 1, 2012. The USF Order contemplated the establishment of a new mobile USF program (i.e., the Phase II Connect America Mobility Fund or "MF2") and provided for a pause in the phase down if that program was not timely implemented by July 2014. MF2 was not operational as of July 2014 and, therefore, as provided by the USF Order, the phase down was suspended at 60% of the baseline amount until such time as the FCC had taken steps to establish the MF2. In February 2017, the FCC adopted the MF2 Order addressing the framework for MF2 and the resumption of the phase down. The MF2 Order establishes a support fund of $453 million annually for ten years to be distributed through a market-based, multi-round reverse auction. For areas that receive support under MF2, legacy support to MF2 Auction winners will terminate and be replaced with MF2 support effective the first day of the month following release of the public notice closing the auction. Legacy support in areas where the legacy support recipient is not an MF2 winner will be subject to phase down over two years unless there is no winner in a particular census block, in which case it will be continued for one legacy support recipient only. The MF2 Order further states that the phase down of legacy support for areas that were not eligible for support under MF2 will commence on the first day of the month following the completion of the auction and will conclude two years later.

In August 2017, the FCC adopted the MF2 Challenge Process Order, which laid out procedures for establishing areas that would be eligible for support under the MF2 program. This included a collection process to be followed by a challenge window, a challenge response window, and finally adjudication of any coverage disputes. In September 2017, the FCC issued a public notice initiating the collection of 4G LTE coverage data. Responses submitting the collected data were due on January 4, 2018.

On February 27, 2018, the FCC issued public notices providing detailed challenge procedures and a schedule for the challenge process. Pursuant to these notices, the challenge window began on March 29, 2018, and closed on November 26, 2018. Under the MF2 Challenge Process Order, no earlier than thirty days after the FCC processes the challenges, the FCC would open a thirty-day challenge response window. Following the challenge response window, the FCC would then adjudicate any disputes. This entire process must be completed before an auction can be commenced.

On December 7, 2018, the FCC announced that it was investigating whether one or more carriers had submitted inaccurate maps. Pending the outcome of this investigation, the FCC suspended the challenge process. On December 4, 2019, the FCC released a staff report concluding that the maps submitted by carriers were too inaccurate to provide the basis for the MF2 auction. Contemporaneously with the release of this staff report, the Chairman of the FCC announced that he intended to propose the creation of a new fund for 5G deployment in rural areas with $9 billion in available funding. This new 5G fund would replace the MF2 fund. No further details are available but in a letter to Members of Congress dated January 24, 2020, the Chairman of the FCC stated that he planned to circulate a Notice of Proposed Rulemaking in the coming months for the Commission's consideration.

U.S. Cellular cannot predict at this time when the 5G fund auction will occur, if ever, when the phase down period for its existing legacy support from the Federal USF will commence, or whether the 5G fund auction will provide opportunities to U.S. Cellular to offset any loss in existing support.

FCC Rulemaking – Restoring Internet Freedom

In December 2017, the FCC approved rules reversing or revising decisions made in the FCC's 2015 Open Internet and Title II Order (Restoring Internet Freedom). The 2017 action reversed the FCC's 2015 decision to reclassify Broadband Internet Access Services as telecommunications services subject to regulation under Title II of the Telecommunications Act. The 2017 action also reversed the FCC's 2015 restrictions on blocking, throttling and paid prioritization, and modified transparency rules relating to such practices. Several parties filed suit in federal court challenging the 2017 actions. On October 1, 2019, the Court of Appeals for the D.C. Circuit issued an order reaffirming the FCC in most respects, but limiting the FCC's ability to preempt state and local net neutrality laws.

A number of states, including certain states in which U.S. Cellular operates, have adopted or considered laws intended to reinstate aspects of the foregoing net neutrality regulations that were reversed or revised by the FCC in 2017. To the extent such laws are enacted, it is expected that legal proceedings will be pursued challenging such laws, subject now to the DC Circuit ruling limiting the FCC's preemptive authority in this matter. U.S. Cellular cannot predict the outcome of these proceedings or the impact on its business.

Millimeter Wave Spectrum Auctions

During 2018 and 2019, the FCC conducted two auctions of wireless spectrum licenses in the 28 GHz and 24 GHz bands. The 28 GHz auction (Auction 101) commenced on November 14, 2018 and closed on January 24, 2019. Auction 101 offered two 425 MHz wireless spectrum licenses in the 28 GHz band over portions of the United States that do not have incumbent licensees. The 24 GHz auction (Auction 102) commenced on March 14, 2019 and closed on May 28, 2019. Auction 102 offered up to seven 100 MHz wireless spectrum licenses in the 24 GHz band in Partial Economic Areas covering most of the United States. On June 3, 2019, the FCC announced by way of public notice that U.S. Cellular was the provisional winning bidder for 408 wireless spectrum licenses in Auction 101 and 282 wireless spectrum licenses in Auction 102 for an aggregate purchase price of $256 million. The wireless spectrum licenses from Auction 101 were granted by the FCC on October 2, 2019, and the wireless spectrum licenses from Auction 102 were granted by the FCC on December 11, 2019.

On July 11, 2019, the FCC released a Public Notice establishing procedures for an auction offering wireless spectrum licenses in the 37, 39 and 47 GHz bands (Auction 103). On August 21, 2019, the FCC released a Public Notice announcing that all 39 GHz incumbents have agreed to relinquish their wireless spectrum licenses in return for incentive payments. Consequently, Auction 103 is offering 34 100 MHz blocks in the Upper 37 GHz, 39 GHz, and 47 GHz bands in all Partial Economic Areas. On September 9, 2019, U.S. Cellular filed an application to participate in Auction 103 and was announced as a qualified bidder on October 31, 2019. Bidding in this auction commenced on December 10, 2019. The initial phase of this auction closed on January 30, 2020 and the assignment phase commenced on February 18, 2020.

PRIVATE SECURITIES LITIGATION REFORM ACT OF 1995
SAFE HARBOR CAUTIONARY STATEMENT

This Management's Discussion and Analysis of Financial Condition and Results of Operations and other sections of this Annual Report contain statements that are not based on historical facts and represent forward-looking statements, as this term is defined in the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical facts, that address activities, events or developments that U.S. Cellular intends, expects, projects, believes, estimates, plans or anticipates will or may occur in the future are forward-looking statements. The words "believes," "anticipates," "estimates," "expects," "plans," "intends," "projects" and similar expressions are intended to identify these forward-looking statements, but are not the exclusive means of identifying them. Such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results, events or developments to be significantly different from any future results, events or developments expressed or implied by such forward-looking statements. Such risks, uncertainties and other factors include, but are not limited to, those set forth below. See "Risk Factors" in U.S. Cellular's Annual Report on Form 10-K for the year ended December 31, 2019, for a further discussion of these risks. Each of the following risks could have a material adverse effect on U.S. Cellular's business, financial condition or results of operations. However, such factors are not necessarily all of the important factors that could cause actual results, performance or achievements to differ materially from those expressed in, or implied by, the forward-looking statements contained in this document. Other unknown or unpredictable factors also could have material adverse effects on future results, performance or achievements. U.S. Cellular undertakes no obligation to update publicly any forward-looking statements whether as a result of new information, future events or otherwise. Readers should evaluate any statements in light of these important factors.

- *Intense competition in the markets in which U.S. Cellular operates could adversely affect U.S. Cellular's revenues or increase its costs to compete.*
- *A failure by U.S. Cellular to successfully execute its business strategy (including planned acquisitions, spectrum acquisitions, divestitures and exchanges) or allocate resources or capital effectively could have an adverse effect on U.S. Cellular's business, financial condition or results of operations.*
- *Uncertainty in U.S. Cellular's future cash flow and liquidity or the inability to access capital, deterioration in the capital markets, other changes in U.S. Cellular's performance or market conditions, changes in U.S. Cellular's credit ratings or other factors could limit or restrict the availability of financing on terms and prices acceptable to U.S. Cellular, which could require U.S. Cellular to reduce its construction, development or acquisition programs, reduce the amount of wireless spectrum licenses acquired, and/or reduce or cease share repurchases.*
- *U.S. Cellular has a significant amount of indebtedness which could adversely affect its financial performance and in turn adversely affect its ability to make payments on its indebtedness, comply with terms of debt covenants and incur additional debt.*
- *Changes in roaming practices or other factors could cause U.S. Cellular's roaming revenues to decline from current levels, roaming expenses to increase from current levels and/or impact U.S. Cellular's ability to service its customers in geographic areas where U.S. Cellular does not have its own network, which could have an adverse effect on U.S. Cellular's business, financial condition or results of operations.*
- *A failure by U.S. Cellular to obtain access to adequate radio spectrum to meet current or anticipated future needs and/or to accurately predict future needs for radio spectrum could have an adverse effect on U.S. Cellular's business, financial condition or results of operations.*
- *To the extent conducted by the FCC, U.S. Cellular may participate in FCC auctions for additional spectrum or for funding in certain Universal Service programs in the future directly or indirectly and, during certain periods, will be subject to the FCC's anti-collusion rules, which could have an adverse effect on U.S. Cellular.*
- *Failure by U.S. Cellular to timely or fully comply with any existing applicable legislative and/or regulatory requirements or changes thereto could adversely affect U.S. Cellular's business, financial condition or results of operations.*
- *An inability to attract people of outstanding talent throughout all levels of the organization, to develop their potential through education and assignments, and to retain them by keeping them engaged, challenged and properly rewarded could have an adverse effect on U.S. Cellular's business, financial condition or results of operations.*
- *U.S. Cellular's assets and revenue are concentrated in the U.S. wireless telecommunications industry. Consequently, its operating results may fluctuate based on factors related primarily to conditions in this industry.*
- *U.S. Cellular's smaller scale relative to larger competitors that may have greater financial and other resources than U.S. Cellular could cause U.S. Cellular to be unable to compete successfully, which could adversely affect its business, financial condition or results of operations.*
- *Changes in various business factors, including changes in demand, consumer preferences and perceptions, price competition, churn from customer switching activity and other factors, could have an adverse effect on U.S. Cellular's business, financial condition or results of operations.*

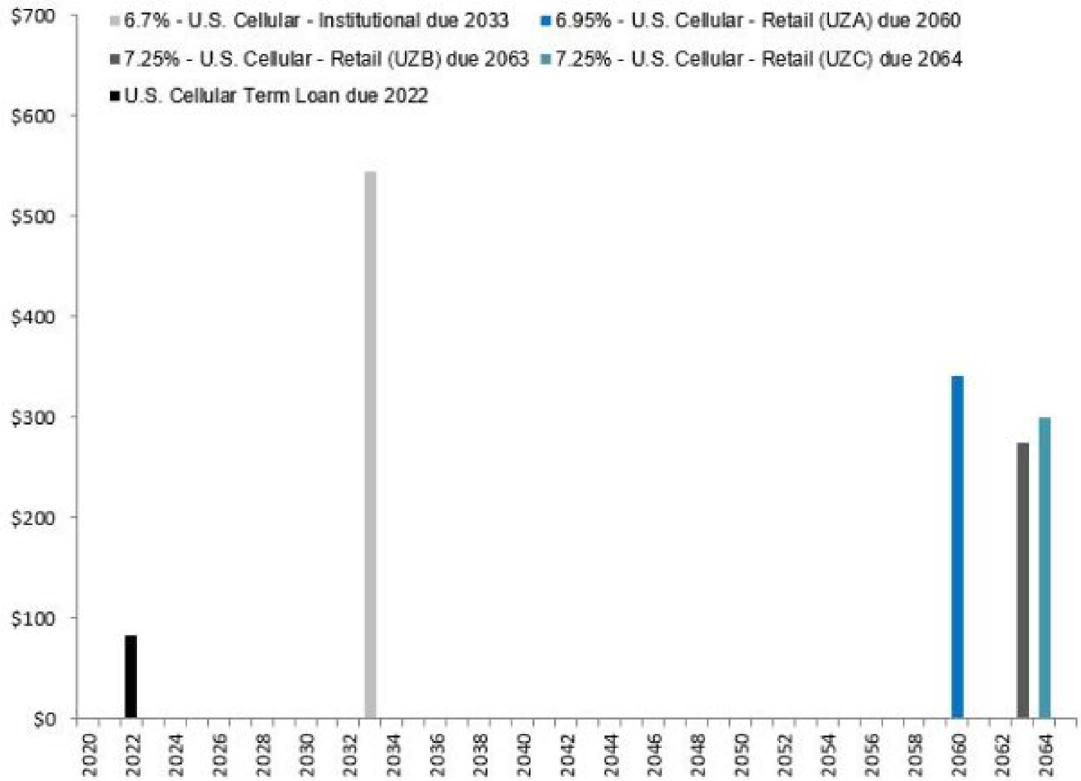
- *Advances or changes in technology could render certain technologies used by U.S. Cellular obsolete, could put U.S. Cellular at a competitive disadvantage, could reduce U.S. Cellular’s revenues or could increase its costs of doing business.*
- *Complexities associated with deploying new technologies present substantial risk and U.S. Cellular investments in unproven technologies may not produce the benefits that U.S. Cellular expects.*
- *U.S. Cellular receives regulatory support and is subject to numerous surcharges and fees from federal, state and local governments, and the applicability and the amount of the support and fees are subject to great uncertainty, which could have an adverse effect on U.S. Cellular’s business, financial condition or results of operations.*
- *Changes in U.S. Cellular’s enterprise value, changes in the market supply or demand for wireless spectrum licenses, adverse developments in the business or the industry in which U.S. Cellular is involved and/or other factors could require U.S. Cellular to recognize impairments in the carrying value of its wireless spectrum licenses and/or physical assets.*
- *Costs, integration problems or other factors associated with acquisitions, divestitures or exchanges of properties or wireless spectrum licenses and/or expansion of U.S. Cellular’s business could have an adverse effect on U.S. Cellular’s business, financial condition or results of operations.*
- *A failure by U.S. Cellular to complete significant network construction and systems implementation activities as part of its plans to improve the quality, coverage, capabilities and capacity of its network, support and other systems and infrastructure could have an adverse effect on its operations.*
- *Difficulties involving third parties with which U.S. Cellular does business, including changes in U.S. Cellular's relationships with or financial or operational difficulties of key suppliers or independent agents and third party national retailers who market U.S. Cellular’s services, could adversely affect U.S. Cellular’s business, financial condition or results of operations.*
- *U.S. Cellular has significant investments in entities that it does not control. Losses in the value of such investments could have an adverse effect on U.S. Cellular’s financial condition or results of operations.*
- *A failure by U.S. Cellular to maintain flexible and capable telecommunication networks or information technology, or a material disruption thereof, could have an adverse effect on U.S. Cellular’s business, financial condition or results of operations.*
- *U.S. Cellular has experienced, and in the future expects to experience, cyber-attacks or other breaches of network or information technology security of varying degrees on a regular basis, which could have an adverse effect on U.S. Cellular's business, financial condition or results of operations.*
- *Changes in facts or circumstances, including new or additional information, could require U.S. Cellular to record adjustments to amounts reflected in the financial statements, which could have an adverse effect on U.S. Cellular’s business, financial condition or results of operations.*
- *Disruption in credit or other financial markets, a deterioration of U.S. or global economic conditions or other events could, among other things, impede U.S. Cellular’s access to or increase the cost of financing its operating and investment activities and/or result in reduced revenues and lower operating income and cash flows, which would have an adverse effect on U.S. Cellular’s business, financial condition or results of operations.*
- *Settlements, judgments, restraints on its current or future manner of doing business and/or legal costs resulting from pending and future litigation could have an adverse effect on U.S. Cellular’s business, financial condition or results of operations.*
- *The possible development of adverse precedent in litigation or conclusions in professional studies to the effect that radio frequency emissions from wireless devices and/or cell sites cause harmful health consequences, including cancer or tumors, or may interfere with various electronic medical devices such as pacemakers, could have an adverse effect on U.S. Cellular’s business, financial condition or results of operations.*
- *Claims of infringement of intellectual property and proprietary rights of others, primarily involving patent infringement claims, could prevent U.S. Cellular from using necessary technology to provide products or services or subject U.S. Cellular to expensive intellectual property litigation or monetary penalties, which could have an adverse effect on U.S. Cellular’s business, financial condition or results of operations.*
- *There are potential conflicts of interests between TDS and U.S. Cellular.*
- *Certain matters, such as control by TDS and provisions in the U.S. Cellular Restated Certificate of Incorporation, may serve to discourage or make more difficult a change in control of U.S. Cellular or have other consequences.*
- *The market price of U.S. Cellular’s Common Shares is subject to fluctuations due to a variety of factors.*
- *Any of the foregoing events or other events could cause revenues, earnings, capital expenditures and/or any other financial or statistical information to vary from U.S. Cellular’s forward-looking estimates by a material amount.*

Market Risk

Long-Term Debt

As of December 31, 2019, the majority of U.S. Cellular’s long-term debt was in the form of fixed-rate notes with remaining maturities ranging up to 45 years. Fluctuations in market interest rates can lead to significant fluctuations in the fair value of these fixed-rate notes.

The following chart presents the scheduled principal payments on long-term debt by maturity dates at December 31, 2019:



The following table presents the scheduled principal payments on long-term debt, finance lease obligations and other installment arrangements, and the related weighted average interest rates by maturity dates at December 31, 2019:

	Principal Payments Due by Period	
	Long-Term Debt Obligations[1]	Weighted-Avg. Interest Rates on Long-Term Debt Obligations[2]
(Dollars in millions)		
2020	$ 8	0.8%
2021	—	7.4%
2022	83	3.6%
2023	—	7.4%
2024	—	7.4%
Thereafter	1,464	7.0%
Total	$ 1,555	6.8%

1 The total long-term debt obligation differs from Long-term debt in the Consolidated Balance Sheet due to unamortized debt issuance costs on all non-revolving debt instruments, unamortized discounts related to the 6.7% Senior Notes, and unamortized discounts related to the Installment payment agreement. See Note 12 — Debt in the Notes to Consolidated Financial Statements for additional information.

2 Represents the weighted average stated interest rates at December 31, 2019, for debt maturing in the respective periods.

Fair Value of Long-Term Debt

At December 31, 2019 and 2018, the estimated fair value of long-term debt obligations, excluding finance lease obligations, other installment arrangements, the current portion of such long-term debt and debt financing costs, was $1,620 million and $1,561 million, respectively. See Note 3 — Fair Value Measurements in the Notes to Consolidated Financial Statements for additional information.

Other Market Risk Sensitive Instruments

The substantial majority of U.S. Cellular’s other market risk sensitive instruments (as defined in Item 305 of SEC Regulation S-K) are short-term, including Cash and cash equivalents. Accordingly, U.S. Cellular believes that a significant change in interest rates would not have a material effect on such other market risk sensitive instruments.

Supplemental Information Relating to Non-GAAP Financial Measures

U.S. Cellular sometimes uses information derived from consolidated financial information but not presented in its financial statements prepared in accordance with U.S. GAAP to evaluate the performance of its business. Certain of these measures are considered “non-GAAP financial measures” under U.S. Securities and Exchange Commission Rules. Specifically, U.S. Cellular has referred to the following measures in this Form 10-K Report:

- EBITDA
- Adjusted EBITDA
- Adjusted OIBDA
- Free cash flow

Following are explanations of each of these measures:

EBITDA, Adjusted EBITDA and Adjusted OIBDA

EBITDA, Adjusted EBITDA and Adjusted OIBDA are defined as net income adjusted for the items set forth in the reconciliation below. EBITDA, Adjusted EBITDA and Adjusted OIBDA are not measures of financial performance under GAAP and should not be considered as alternatives to Net income or Cash flows from operating activities, as indicators of cash flows or as measures of liquidity. U.S. Cellular does not intend to imply that any such items set forth in the reconciliation below are non-recurring, infrequent or unusual; such items may occur in the future.

Management uses Adjusted EBITDA and Adjusted OIBDA as measurements of profitability and, therefore, reconciliations to Net income and Operating income are deemed appropriate. Management believes Adjusted EBITDA and Adjusted OIBDA are useful measures of U.S. Cellular’s operating results before significant recurring non-cash charges, gains and losses, and other items as presented below as they provide additional relevant and useful information to investors and other users of U.S. Cellular’s financial data in evaluating the effectiveness of its operations and underlying business trends in a manner that is consistent with management’s evaluation of business performance. Adjusted EBITDA shows adjusted earnings before interest, taxes, depreciation, amortization and accretion, and gains and losses, while Adjusted OIBDA reduces this measure further to exclude Equity in earnings of unconsolidated entities and Interest and dividend income in order to more effectively show the performance of operating activities excluding investment activities. The following table reconciles EBITDA, Adjusted EBITDA and Adjusted OIBDA to the corresponding GAAP measures, Net income and Operating income.

	2019	2018
(Dollars in millions)		
Net income (GAAP)	**$ 133**	$ 164
Add back or deduct:		
Income tax expense	**52**	51
Interest expense	**110**	116
Depreciation, amortization and accretion	**702**	640
EBITDA (Non-GAAP)	**997**	971
Add back or deduct:		
(Gain) loss on asset disposals, net	**19**	10
(Gain) loss on sale of business and other exit costs, net	**(1)**	—
(Gain) loss on license sales and exchanges, net	**—**	(18)
Adjusted EBITDA (Non-GAAP)	**1,015**	963
Deduct:		
Equity in earnings of unconsolidated entities	**166**	159
Interest and dividend income	**17**	15
Other, net	**—**	(1)
Adjusted OIBDA (Non-GAAP)	**832**	790
Deduct:		
Depreciation, amortization and accretion	**702**	640
(Gain) loss on asset disposals, net	**19**	10
(Gain) loss on sale of business and other exit costs, net	**(1)**	—
(Gain) loss on license sales and exchanges, net	**—**	(18)
Operating income (GAAP)	**$ 112**	$ 158

Free Cash Flow

The following table presents Free cash flow, which is defined as Cash flow from operating activities less Cash paid for additions to property, plant and equipment. Free cash flow is a non-GAAP financial measure which U.S. Cellular believes may be useful to investors and other users of its financial information in evaluating liquidity, specifically, the amount of net cash generated by business operations after deducting Cash paid for additions to property, plant and equipment.

	2019	2018
(Dollars in millions)		
Cash flows from operating activities (GAAP)	**$ 724**	$ 709
Less: Cash paid for additions to property, plant and equipment	**650**	512
Free cash flow (Non-GAAP)	**$ 74**	$ 197

Financial Statements

United States Cellular Corporation
Consolidated Statement of Operations

Year Ended December 31,	2019	2018	2017
(Dollars and shares in millions, except per share amounts)			
Operating revenues			
Service	$ 3,035	$ 2,978	$ 2,978
Equipment sales	987	989	912
Total operating revenues	4,022	3,967	3,890
Operating expenses			
System operations (excluding Depreciation, amortization and accretion reported below)	756	758	732
Cost of equipment sold	1,028	1,031	1,071
Selling, general and administrative (including charges from affiliates of $82 million, $86 million and $85 million in 2019, 2018 and 2017)	1,406	1,388	1,412
Depreciation, amortization and accretion	702	640	615
Loss on impairment of goodwill	—	—	370
(Gain) loss on asset disposals, net	19	10	17
(Gain) loss on sale of business and other exit costs, net	(1)	—	(1)
(Gain) loss on license sales and exchanges, net	—	(18)	(22)
Total operating expenses	3,910	3,809	4,194
Operating income (loss)	112	158	(304)
Investment and other income (expense)			
Equity in earnings of unconsolidated entities	166	159	137
Interest and dividend income	17	15	8
Interest expense	(110)	(116)	(113)
Other, net	—	(1)	—
Total investment and other income	73	57	32
Income (loss) before income taxes	185	215	(272)
Income tax expense (benefit)	52	51	(287)
Net income	133	164	15
Less: Net income attributable to noncontrolling interests, net of tax	6	14	3
Net income attributable to U.S. Cellular shareholders	$ 127	$ 150	$ 12
Basic weighted average shares outstanding	86	86	85
Basic earnings per share attributable to U.S. Cellular shareholders	$ 1.47	$ 1.75	$ 0.14
Diluted weighted average shares outstanding	88	87	86
Diluted earnings per share attributable to U.S. Cellular shareholders	$ 1.44	$ 1.72	$ 0.14

The accompanying notes are an integral part of these consolidated financial statements.

United States Cellular Corporation
Consolidated Statement of Cash Flows

Year Ended December 31,	**2019**	2018	2017
(Dollars in millions)			
Cash flows from operating activities			
Net income	**$ 133**	$ 164	$ 15
Add (deduct) adjustments to reconcile net income to net cash flows from operating activities			
Depreciation, amortization and accretion	**702**	640	615
Bad debts expense	**107**	95	89
Stock-based compensation expense	**41**	37	30
Deferred income taxes, net	**(4)**	(3)	(365)
Equity in earnings of unconsolidated entities	**(166)**	(159)	(137)
Distributions from unconsolidated entities	**161**	152	136
Loss on impairment of goodwill	**—**	—	370
(Gain) loss on asset disposals, net	**19**	10	17
(Gain) loss on sale of business and other exit costs, net	**(1)**	—	(1)
(Gain) loss on license sales and exchanges, net	**—**	(18)	(22)
Other operating activities	**4**	3	2
Changes in assets and liabilities from operations			
Accounts receivable	**(46)**	(39)	(68)
Equipment installment plans receivable	**(97)**	(149)	(261)
Inventory	**(20)**	(4)	—
Accounts payable	**(69)**	3	(14)
Customer deposits and deferred revenues	**(8)**	7	(3)
Accrued taxes	**(23)**	(39)	26
Other assets and liabilities	**(9)**	9	40
Net cash provided by operating activities	**724**	709	469
Cash flows from investing activities			
Cash paid for additions to property, plant and equipment	**(650)**	(512)	(465)
Cash paid for licenses	**(266)**	(8)	(189)
Cash received from investments	**29**	50	—
Cash paid for investments	**(11)**	(17)	(50)
Cash received from divestitures and exchanges	**41**	24	21
Other investing activities	**(7)**	(1)	—
Net cash used in investing activities	**(864)**	(464)	(683)
Cash flows from financing activities			
Repayment of long-term debt	**(116)**	(19)	(14)
Common shares reissued for benefit plans, net of tax payments	**(9)**	18	1
Repurchase of Common Shares	**(21)**	—	—
Distributions to noncontrolling interests	**(4)**	(6)	(4)
Other financing activities	**(2)**	(7)	(3)
Net cash used in financing activities	**(152)**	(14)	(20)
Net increase (decrease) in cash, cash equivalents and restricted cash	**(292)**	231	(234)
Cash, cash equivalents and restricted cash			
Beginning of period	**583**	352	586
End of period	**$ 291**	$ 583	$ 352

The accompanying notes are an integral part of these consolidated financial statements.

United States Cellular Corporation
Consolidated Balance Sheet — Assets

December 31,	2019	2018
(Dollars in millions)		
Current assets		
Cash and cash equivalents	$ 285	$ 580
Short-term investments	—	17
Accounts receivable		
Customers and agents, less allowances of $70 and $66, respectively	919	908
Roaming	27	20
Affiliated	1	2
Other, less allowances of $1 and $2, respectively	63	46
Inventory, net	162	142
Prepaid expenses	50	63
Income taxes receivable	46	15
Other current assets	20	19
Total current assets	1,573	1,812
Assets held for sale	—	54
Licenses	2,471	2,186
Investments in unconsolidated entities	447	441
Property, plant and equipment		
In service and under construction	8,293	7,778
Less: Accumulated depreciation and amortization	6,086	5,576
Property, plant and equipment, net	2,207	2,202
Operating lease right-of-use assets	900	—
Other assets and deferred charges	566	579
Total assets[1]	$ 8,164	$ 7,274

The accompanying notes are an integral part of these consolidated financial statements.

United States Cellular Corporation
Consolidated Balance Sheet — Liabilities and Equity

December 31,	2019	2018
(Dollars and shares in millions, except per share amounts)		
Current liabilities		
Current portion of long-term debt	**$ 8**	$ 19
Accounts payable		
Affiliated	**8**	9
Trade	**296**	304
Customer deposits and deferred revenues	**148**	157
Accrued taxes	**30**	30
Accrued compensation	**76**	78
Short-term operating lease liabilities	**105**	—
Other current liabilities	**79**	94
Total current liabilities	**750**	691
Liabilities held for sale	**—**	1
Deferred liabilities and credits		
Deferred income tax liability, net	**507**	510
Long-term operating lease liabilities	**865**	—
Other deferred liabilities and credits	**319**	389
Long-term debt, net	**1,502**	1,605
Commitments and contingencies		
Noncontrolling interests with redemption features	**11**	11
Equity		
U.S. Cellular shareholders' equity		
Series A Common and Common Shares		
Authorized 190 shares (50 Series A Common and 140 Common Shares)		
Issued 88 shares (33 Series A Common and 55 Common Shares)		
Outstanding 86 shares (33 Series A Common and 53 Common Shares)		
Par Value ($1.00 per share) ($33 Series A Common and $55 Common Shares)	**88**	88
Additional paid-in capital	**1,629**	1,590
Treasury shares, at cost, 2 Common Shares	**(70)**	(65)
Retained earnings	**2,550**	2,444
Total U.S. Cellular shareholders' equity	**4,197**	4,057
Noncontrolling interests	**13**	10
Total equity	**4,210**	4,067
Total liabilities and equity[1]	**$ 8,164**	$ 7,274

The accompanying notes are an integral part of these consolidated financial statements.

1 The consolidated total assets as of December 31, 2019 and 2018, include assets held by consolidated variable interest entities (VIEs) of $930 million and $868 million, respectively, which are not available to be used to settle the obligations of U.S. Cellular. The consolidated total liabilities as of December 31, 2019 and 2018, include certain liabilities of consolidated VIEs of $22 million and $23 million, respectively, for which the creditors of the VIEs have no recourse to the general credit of U.S. Cellular. See Note 14 — Variable Interest Entities for additional information.

United States Cellular Corporation
Consolidated Statement of Changes in Equity

	U.S. Cellular Shareholders						
	Series A Common and Common shares	**Additional paid-in capital**	**Treasury shares**	**Retained earnings**	**Total U.S. Cellular shareholders' equity**	**Noncontrolling interests**	**Total equity**
(Dollars in millions)							
December 31, 2018	**$ 88**	**$ 1,590**	**$ (65)**	**$ 2,444**	**$ 4,057**	**$ 10**	**$ 4,067**
Cumulative effect of accounting change	—	—	—	2	2	—	2
Net income attributable to U.S. Cellular shareholders	—	—	—	127	127	—	127
Net income attributable to noncontrolling interests classified as equity	—	—	—	—	—	6	6
Repurchase of Common Shares	—	—	(21)	—	(21)	—	(21)
Incentive and compensation plans	—	(2)	16	(23)	(9)	—	(9)
Stock-based compensation awards	—	41	—	—	41	—	41
Distributions to noncontrolling interests	—	—	—	—	—	(3)	(3)
December 31, 2019	**$ 88**	**$ 1,629**	**$ (70)**	**$ 2,550**	**$ 4,197**	**$ 13**	**$ 4,210**

The accompanying notes are an integral part of these consolidated financial statements.

United States Cellular Corporation
Consolidated Statement of Changes in Equity

	U.S. Cellular Shareholders						
	Series A Common and Common shares	Additional paid-in capital	Treasury shares	Retained earnings	Total U.S. Cellular shareholders' equity	Noncontrolling interests	Total equity
(Dollars in millions)							
December 31, 2017	**$ 88**	**$ 1,552**	**$ (120)**	**$ 2,157**	**$ 3,677**	**$ 10**	**$ 3,687**
Cumulative effect of accounting change	—	—	—	175	175	1	176
Net income attributable to U.S. Cellular shareholders	—	—	—	150	150	—	150
Net income attributable to noncontrolling interests classified as equity	—	—	—	—	—	2	2
Incentive and compensation plans	—	1	55	(38)	18	—	18
Stock-based compensation awards	—	37	—	—	37	—	37
Distributions to noncontrolling interests	—	—	—	—	—	(3)	(3)
December 31, 2018	**$ 88**	**$ 1,590**	**$ (65)**	**$ 2,444**	**$ 4,057**	**$ 10**	**$ 4,067**

The accompanying notes are an integral part of these consolidated financial statements.

United States Cellular Corporation
Consolidated Statement of Changes in Equity

	U.S. Cellular Shareholders						
	Series A Common and Common shares	Additional paid-in capital	Treasury shares	Retained earnings	Total U.S. Cellular shareholders' equity	Noncontrolling interests	Total equity
(Dollars in millions)							
December 31, 2016	**$ 88**	**$ 1,522**	**$ (136)**	**$ 2,160**	**$ 3,634**	**$ 11**	**$ 3,645**
Net income attributable to U.S. Cellular shareholders	—	—	—	12	12	—	12
Net income attributable to noncontrolling interests classified as equity	—	—	—	—	—	3	3
Incentive and compensation plans	—	—	16	(15)	1	—	1
Stock-based compensation awards	—	30	—	—	30	—	30
Distributions to noncontrolling interests	—	—	—	—	—	(4)	(4)
December 31, 2017	**$ 88**	**$ 1,552**	**$ (120)**	**$ 2,157**	**$ 3,677**	**$ 10**	**$ 3,687**

The accompanying notes are an integral part of these consolidated financial statements.

United States Cellular Corporation
Notes to Consolidated Financial Statements

Note 1 Summary of Significant Accounting Policies and Recent Accounting Pronouncements

United States Cellular Corporation (U.S. Cellular), a Delaware Corporation, is an 82%-owned subsidiary of Telephone and Data Systems, Inc. (TDS).

Nature of Operations

U.S. Cellular owns, operates and invests in wireless systems throughout the United States. As of December 31, 2019, U.S. Cellular served customers with 4.9 million total connections. U.S. Cellular has one reportable segment.

Principles of Consolidation

The accounting policies of U.S. Cellular conform to accounting principles generally accepted in the United States of America (GAAP) as set forth in the Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC). Unless otherwise specified, references to accounting provisions and GAAP in these notes refer to the requirements of the FASB ASC. The consolidated financial statements include the accounts of U.S. Cellular, subsidiaries in which it has a controlling financial interest, general partnerships in which U.S. Cellular has a majority partnership interest and certain entities in which U.S. Cellular has a variable interest that requires consolidation under GAAP. See Note 14 — Variable Interest Entities for additional information relating to U.S. Cellular's VIEs. All material intercompany accounts and transactions have been eliminated.

Use of Estimates

The preparation of consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect (a) the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and (b) the reported amounts of revenues and expenses during the reported period. Actual results could differ from those estimates. Significant estimates are involved in accounting for indefinite-lived intangible assets and income taxes.

Cash, Cash Equivalents and Restricted Cash

Cash and cash equivalents include cash and highly liquid investments with original maturities of three months or less. Cash and cash equivalents subject to contractual restrictions are classified as restricted cash. The following table provides a reconciliation of Cash and cash equivalents and restricted cash reported in the Consolidated Balance Sheet to the total of the amounts in the Consolidated Statement of Cash Flows.

December 31,	2019	2018
(Dollars in millions)		
Cash and cash equivalents	$ 285	$ 580
Restricted cash included in Other current assets	6	3
Cash, cash equivalents and restricted cash in the statement of cash flows	$ 291	$ 583

Accounts Receivable and Allowance for Doubtful Accounts

Accounts receivable consist primarily of amounts owed by customers for wireless services and equipment sales, including sales of certain devices and accessories under installment plans, by agents for sales of equipment to them and by other wireless carriers whose customers have used U.S. Cellular's wireless systems.

The allowance for doubtful accounts is the best estimate of the amount of probable credit losses related to existing billed and unbilled accounts receivable. The allowance is estimated based on historical experience, account aging and other factors that could affect collectability. Accounts receivable balances are reviewed on either an aggregate or individual basis for collectability depending on the type of receivable. When it is probable that an account balance will not be collected, the account balance is charged against the allowance for doubtful accounts. U.S. Cellular does not have any off-balance sheet credit exposure related to its customers.

Inventory

Inventory consists primarily of wireless devices stated at the lower of cost, which approximates cost determined on the first-in first-out basis, or net realizable value. Net realizable value is determined by reference to the stand-alone selling price.

Licenses

Licenses consist of direct and incremental costs incurred in acquiring Federal Communications Commission (FCC) wireless spectrum licenses that provide U.S. Cellular with the exclusive right to utilize designated radio spectrum within specific geographic service areas to provide wireless service. Although wireless spectrum licenses are issued for a fixed period of time, generally ten years, or in some cases twelve or fifteen years, the FCC has granted license renewals routinely and at a nominal cost. The wireless spectrum licenses held by U.S. Cellular expire at various dates. U.S. Cellular believes that it is probable that its future wireless spectrum license renewal applications will be granted. U.S. Cellular determined that there are currently no legal, regulatory, contractual, competitive, economic or other factors that limit the useful lives of the wireless spectrum licenses. Therefore, U.S. Cellular has determined that wireless spectrum licenses are indefinite-lived intangible assets.

U.S. Cellular performs its annual impairment assessment of wireless spectrum licenses as of November 1 of each year or more frequently if there are events or circumstances that cause U.S. Cellular to believe it is more likely than not that the carrying value of wireless spectrum licenses exceeds fair value. For purposes of its impairment testing, U.S. Cellular separated its FCC wireless spectrum licenses into eight units of accounting. The eight units of accounting consisted of one unit of accounting for developed operating market wireless spectrum licenses (built wireless spectrum licenses) and seven geographic non-operating market wireless spectrum licenses (unbuilt wireless spectrum licenses).

U.S. Cellular performed a quantitative impairment assessment in 2019 and a qualitative impairment assessment in 2018 to determine whether the wireless spectrum licenses were impaired. Based on the impairment assessments performed, U.S. Cellular did not have an impairment of its wireless spectrum licenses in 2019 or 2018. See Note 7 — Intangible Assets for additional details related to wireless spectrum licenses.

Investments in Unconsolidated Entities

For its equity method investments for which financial information is readily available, U.S. Cellular records its equity in the earnings of the entity in the current period. For its equity method investments for which financial information is not readily available, U.S. Cellular records its equity in the earnings of the entity on a one quarter lag basis.

Property, Plant and Equipment

U.S. Cellular's Property, plant and equipment is stated at the original cost of construction or purchase including capitalized costs of certain taxes, payroll-related expenses, interest and estimated costs to remove the assets.

Expenditures that enhance the productive capacity of assets in service or extend their useful lives are capitalized and depreciated. Expenditures for maintenance and repairs of assets in service are charged to System operations expense or Selling, general and administrative expense, as applicable. Retirements and disposals of assets are recorded by removing the original cost of the asset (along with the related accumulated depreciation) from plant in service and recording it, together with proceeds, if any, and net removal costs (removal costs less an applicable accrued asset retirement obligation and salvage value realized), as a gain or loss, as appropriate.

U.S. Cellular capitalizes certain costs of developing new information systems. Software licenses that qualify for capitalization as an asset are accounted for as the acquisition of an intangible asset and the incurrence of a liability to the extent that the license fees are not fully paid at acquisition.

Depreciation and Amortization

Depreciation is provided using the straight-line method over the estimated useful life of the related asset.

U.S. Cellular depreciates leasehold improvement assets over periods ranging from one year to thirty years; such periods approximate the shorter of the assets' economic lives or the specific lease terms.

Useful lives of specific assets are reviewed throughout the year to determine if changes in technology or other business changes would warrant accelerating the depreciation of those specific assets. There were no material changes to the assigned useful lives of the various categories of property, plant and equipment in 2019, 2018 or 2017. However, depreciation for certain specific assets was accelerated due to changes in technology. See Note 9 — Property, Plant and Equipment for additional details related to useful lives.

Impairment of Long-Lived Assets

U.S. Cellular reviews long-lived assets for impairment whenever events or changes in circumstances indicate that the assets might be impaired.

U.S. Cellular has one asset group for purposes of assessing property, plant and equipment for impairment based on the integrated nature of its assets and operations. The cash flows generated by this single interdependent asset group represent the lowest level for which identifiable cash flows are largely independent of the cash flows of other groups of assets and liabilities.

Leases

A lease is generally present in a contract if the lessee controls the use of identified property, plant or equipment for a period of time in exchange for consideration. See Note 10 — Leases for additional details related to leases.

Agent Liabilities

U.S. Cellular has relationships with agents, which are independent businesses that obtain customers for U.S. Cellular. At December 31, 2019 and 2018, U.S. Cellular had accrued $59 million and $63 million, respectively, in agent related liabilities. These amounts are included in Other current liabilities in the Consolidated Balance Sheet.

Debt Issuance Costs

Debt issuance costs include underwriters' and legal fees and other charges related to issuing and renewing various borrowing instruments and other long–term agreements, and are amortized over the respective term of each instrument. Debt issuance costs related to U.S. Cellular's revolving credit agreement and receivables securitization agreement are recorded in Other assets and deferred charges in the Consolidated Balance Sheet. All other debt issuance costs are presented as an offset to the related debt obligation in the Consolidated Balance Sheet.

Asset Retirement Obligations

U.S. Cellular records asset retirement obligations for the fair value of legal obligations associated with asset retirements and a corresponding increase in the carrying amount of the related long-lived asset in the period in which the obligations are incurred. In periods subsequent to initial measurement, U.S. Cellular recognizes changes in the liability resulting from the passage of time and updates to the timing or the amount of the original estimates. The liability is accreted to its estimated settlement date value over the period to the estimated settlement date. The change in the carrying amount of the long-lived asset is depreciated over the average remaining life of the related asset. See Note 11 — Asset Retirement Obligations for additional information.

Treasury Shares

Common Shares repurchased by U.S. Cellular are recorded at cost as treasury shares and result in a reduction of equity. When treasury shares are reissued, U.S. Cellular determines the cost using the first-in, first-out cost method. The difference between the cost of the treasury shares and reissuance price is included in Additional paid-in capital or Retained earnings.

Revenue Recognition

Revenues from sales of equipment and products are recognized when control has transferred to the customer, agent or third-party distributor. Service revenues are recognized as the related service is provided. See Note 2 — Revenue Recognition for additional information on U.S. Cellular's policies related to Revenues.

Advertising Costs

U.S. Cellular expenses advertising costs as incurred. Advertising costs totaled $212 million, $215 million and $211 million in 2019, 2018 and 2017, respectively.

Income Taxes

U.S. Cellular is included in a consolidated federal income tax return with other members of the TDS consolidated group. For financial statement purposes, U.S. Cellular and its subsidiaries calculate their income, income taxes and credits as if they comprised a separate affiliated group. Under a tax allocation agreement between TDS and U.S. Cellular, U.S. Cellular remits its applicable income tax payments to TDS. U.S. Cellular had a tax receivable balance with TDS of $46 million and $14 million as of December 31, 2019, and 2018, respectively.

Deferred taxes are computed using the liability method, whereby deferred tax assets are recognized for future deductible temporary differences and operating loss carryforwards, and deferred tax liabilities are recognized for future taxable temporary differences. Both deferred tax assets and liabilities are measured using the enacted tax rates in effect when the temporary differences are expected to reverse. Temporary differences are the differences between the reported amounts of assets and liabilities and their tax bases. Deferred tax assets and liabilities are adjusted for the effects of changes in tax laws and rates on the date of enactment. Deferred tax assets are reduced by a valuation allowance when it is more likely than not that some portion or all of the deferred tax assets will not be realized. U.S. Cellular evaluates income tax uncertainties, assesses the probability of the ultimate settlement with the applicable taxing authority and records an amount based on that assessment. Deferred taxes are reported as a net non-current asset or liability by jurisdiction. Any corresponding valuation allowance to reduce the amount of deferred tax assets is also recorded as non-current. See Note 5 — Income Taxes for additional information.

Stock-Based Compensation and Other Plans

U.S. Cellular has established a long-term incentive plan and a non-employee director compensation plan. These plans are considered compensatory plans and, therefore, recognition of costs for grants made under these plans is required.

U.S. Cellular recognizes stock compensation expense based upon the fair value of the specific awards granted using established valuation methodologies. The amount of stock compensation cost recognized on either a straight-line basis or graded attribution method is based on the portion of the award that is expected to vest over the requisite service period, which generally represents the vesting period. Stock-based compensation cost recognized has been reduced for estimated forfeitures. Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. See Note 17 — Stock-Based Compensation for additional information.

Defined Contribution Plans

U.S. Cellular participates in a qualified noncontributory defined contribution pension plan sponsored by TDS; such plan provides pension benefits for the employees of U.S. Cellular and its subsidiaries. Under this plan, pension benefits and costs are calculated separately for each participant and are funded currently. Pension costs were $11 million in 2019, 2018 and 2017.

U.S. Cellular also participates in a defined contribution retirement savings plan (401(k) plan) sponsored by TDS. Total costs incurred for U.S. Cellular's contributions to the 401(k) plan were $14 million, $15 million and $16 million in 2019, 2018 and 2017, respectively.

Recently Issued Accounting Pronouncements

In June 2016, the FASB issued Accounting Standards Update 2016-13, *Financial Instruments - Credit Losses: Measurement of Credit Losses on Financial Instruments* (ASU 2016-13). ASU 2016-13 requires entities to use a new forward-looking, expected loss model to estimate credit losses. It also requires additional disclosure relating to the credit quality of trade and other receivables, including information relating to management's estimate of credit allowances. U.S. Cellular is required to adopt ASU 2016-13 on January 1, 2020, using the modified retrospective approach. The adoption of ASU 2016-13 is not expected to have a significant impact on U.S. Cellular's financial position or results of operations.

In August 2018, the FASB issued Accounting Standards Update 2018-15, *Intangibles - Goodwill and Other - Internal-Use Software: Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract* (ASU 2018-15). ASU 2018-15 aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the existing guidance for capitalizing implementation costs for an arrangement that has a software license. The service element of a hosting arrangement will continue to be expensed as incurred. Any capitalized implementation costs will be amortized over the period of the service contract. U.S. Cellular is required to adopt ASU 2018-15 on January 1, 2020, either retrospectively or prospectively to eligible costs incurred on or after the date that this guidance is first applied. The adoption of ASU 2018-15 is not expected to have a significant impact on U.S. Cellular's financial position or results of operations.

Note 2 Revenue Recognition

Change in Accounting Policy

In May 2014, the FASB issued Accounting Standards Update 2014-09, *Revenue from Contracts with Customers* and subsequently amended the standard with several Accounting Standards Updates, collectively referred to as ASC 606. U.S. Cellular adopted and applied the provisions of ASC 606 as of January 1, 2018, using a modified retrospective method. Under this method, the new accounting standard is applied only to the most recent period presented, recognizing the cumulative effect of the accounting change as an adjustment to the beginning balance of retained earnings. Accordingly, prior periods have not been recast to reflect the new accounting standard. The cumulative effect of applying the provisions of ASC 606 was an increase of $175 million to retained earnings as of January 1, 2018.

As a practical expedient, U.S. Cellular groups similar contracts or similar performance obligations together into portfolios of contracts or performance obligations if doing so does not result in a significant difference from accounting for the individual contracts discretely. U.S. Cellular applies this grouping method for the following types of transactions: device activation fees, contract acquisition costs, and certain customer promotions. Contract portfolios are recognized over the respective expected customer lives or terms of the contracts.

Nature of goods and services

The following is a description of principal activities from which U.S. Cellular generates its revenues.

Services and products	Nature, timing of satisfaction of performance obligations, and significant payment terms
Wireless services	Wireless service includes voice, messaging and data services. Revenue is recognized in Service revenues as wireless service is provided to the customer. Wireless services generally are billed and paid in advance on a monthly basis.
Wireless devices and accessories	U.S. Cellular offers a comprehensive range of wireless devices such as handsets, tablets, mobile hotspots, home phones and routers for use by its customers, as well as accessories. U.S. Cellular also sells wireless devices to agents and other third-party distributors for resale. U.S. Cellular frequently discounts wireless devices sold to new and current customers. U.S. Cellular also offers customers the option to purchase certain devices and accessories under installment contracts over a specified time period. For certain equipment installment plans, after a specified period of time, the customer may have the right to upgrade to a new device. Such upgrades require the customer to enter into an equipment installment contract for the new device, and transfer the existing device to U.S. Cellular. U.S. Cellular recognizes revenue in Equipment sales revenues when control of the device or accessory is transferred to the customer, agent or third-party distributor, which is generally upon delivery.
Wireless roaming	U.S. Cellular receives roaming revenues when other wireless carriers' customers use U.S. Cellular's wireless systems. U.S. Cellular recognizes revenue in Service revenues when the roaming service is provided.
Wireless Eligible Telecommunications Carrier (ETC) Revenues	Telecommunications companies may be designated by states, or in some cases by the FCC, as an ETC to receive support payments from the Universal Service Fund if they provide specified services in "high cost" areas. ETC revenues recognized in the reporting period represent the amounts which U.S. Cellular is entitled to receive for such period, as determined and approved in connection with U.S. Cellular's designation as an ETC in various states.
Wireless tower rents	U.S. Cellular receives tower rental revenues when another carrier leases tower space on a U.S. Cellular owned tower. U.S. Cellular recognizes revenue in Service revenues in the period during which the services are provided.

Significant Judgments

Revenues from sales of equipment are recognized when control has transferred to the customer, agent or third-party distributor. Service revenues are recognized as the related service is provided. Services are deemed to be highly interrelated when the method and timing of transfer and performance risk are the same. Highly interrelated services that are determined to not be distinct have been grouped into a single performance obligation. Each month of services promised is a performance obligation. The series of monthly service performance obligations promised over the course of the contract are combined into a single performance obligation for purposes of the allocation.

U.S. Cellular has made judgments regarding transaction price, including but not limited to issues relating to variable consideration, time value of money and returns. When determined to be significant in the context of the contract, these items are considered in the valuation of transaction price at contract inception or modification, as appropriate.

Multiple Performance Obligations

U.S. Cellular sells bundled service and equipment offerings. In these instances, U.S. Cellular recognizes its revenue based on the relative standalone selling prices for each distinct service or equipment performance obligation, or bundles thereof. U.S. Cellular estimates the standalone selling price of the device or accessory to be its retail price excluding discounts. U.S. Cellular estimates the standalone selling price of wireless service to be the price offered to customers on month-to-month contracts.

Equipment Installment Plans

Equipment revenue under equipment installment plan contracts is recognized at the time the device is delivered to the customer for the amount allocated to the equipment.

Incentives

Discounts, incentives, and rebates to agents and end customers that are deemed cash are recognized as a reduction of Operating revenues concurrently with the associated revenue.

From time to time, U.S. Cellular may offer certain promotions to incentivize customers to switch to, or to purchase additional services from, U.S. Cellular. Under these types of promotions, an eligible customer may receive an incentive in the form of a discount off additional services purchased shown as a credit to the customer’s monthly bill. U.S. Cellular accounts for the future discounts as material rights at the time of the initial transaction by allocating and deferring revenue based on the relative proportion of the future discounts in comparison to the aggregate initial purchase. The deferred revenue will be recognized as service revenue in future periods.

Amounts Collected from Customers and Remitted to Governmental Authorities

U.S. Cellular records amounts collected from customers and remitted to governmental authorities on a net basis within a liability account if the amount is assessed upon the customer and U.S. Cellular merely acts as an agent in collecting the amount on behalf of the imposing governmental authority. If the amount is assessed upon U.S. Cellular, then amounts collected from customers are recorded in Service revenues and amounts remitted to governmental authorities are recorded in Selling, general and administrative expenses in the Consolidated Statement of Operations. The amounts recorded gross in revenues that are billed to customers and remitted to governmental authorities totaled $53 million, $67 million and $58 million for 2019, 2018 and 2017, respectively.

Disaggregation of Revenue

In the following table, U.S. Cellular's revenues are disaggregated by type of service, which represents the relevant categorization of revenues for U.S. Cellular, and timing of recognition. Service revenues are recognized over time and Equipment sales are point in time.

(Dollars in millions)	Year Ended December 31, 2019	Year Ended December 31, 2018
Revenues from contracts with customers:		
Retail service	**$ 2,650**	$ 2,623
Inbound roaming	**174**	154
Other service	**137**	135
Service revenues from contracts with customers	**2,961**	2,912
Equipment sales	**987**	989
Total revenues from contracts with customers[1]	**$ 3,948**	$ 3,901

1 Revenue line items in this table will not agree to amounts presented in the Consolidated Statement of Operations as the amounts in this table only include revenue resulting from contracts with customers.

Contract Balances

For contracts that involve multiple element service and equipment offerings, the transaction price is allocated to each performance obligation based on its relative standalone selling price. When payment is collected in advance of delivery of goods or services, a contract liability is recorded. A contract asset is recorded when revenue is recognized in advance of U.S. Cellular’s right to receive consideration. Once there is an unconditional right to receive the consideration, U.S. Cellular bills the customer under the terms of the respective contract and the amounts are recorded as receivables.

U.S. Cellular recognizes Equipment sales revenue when the equipment is delivered to the customer and a corresponding contract asset or liability is recorded for the difference between the amount of revenue recognized and the amount billed to the customer in cases where discounts are offered. The contract asset or liability is reduced over the contract term as service is provided and billed to the customer.

The following table provides balances for contract assets from contracts with customers, which are recorded in Other current assets and Other assets and deferred charges in the Consolidated Balance Sheet, and contract liabilities from contracts with customers, which are recorded in Customer deposits and deferred revenues and Other deferred liabilities and credits in the Consolidated Balance Sheet.

	December 31, 2019	December 31, 2018
(Dollars in millions)		
Contract assets	**$ 7**	$ 9
Contract liabilities[1]	**$ 154**	$ 147

[1] The contract liability balance at December 31, 2018 differs from the amount reported in Note 2 — Revenue Recognition of the 2018 Form 10-K, as the previously reported amount included certain lease-related balances that did not result from contracts with customers.

Revenue recognized related to contract liabilities existing at January 1, 2019 was $128 million for the year ended December 31, 2019.

Transaction price allocated to the remaining performance obligations

The following table includes estimated service revenues expected to be recognized related to performance obligations that are unsatisfied (or partially unsatisfied) at the end of the reporting period. These estimates represent service revenues to be recognized when wireless services are delivered to customers pursuant to service plan contracts and under certain roaming agreements with other carriers. These estimates are based on contracts in place as of December 31, 2019, and may vary from actual results. As practical expedients, revenue related to contracts of less than one year, generally month-to-month contracts, and contracts with a fixed per-unit price and variable quantity, are excluded from these estimates.

	Service Revenues
(Dollars in millions)	
2020	$ 206
2021	90
Thereafter	160
Total	$ 456

Contract Cost Assets

U.S. Cellular expects that commission fees paid as a result of obtaining contracts are recoverable and therefore U.S. Cellular capitalizes these costs. As a practical expedient, costs with an amortization period of one year or less are not capitalized. The contract cost asset balance related to commission fees was $133 million and $139 million at December 31, 2019 and 2018, respectively and was recorded in Other assets and deferred charges in the Consolidated Balance Sheet. Capitalized commission fees are amortized based on the timing of transfer of the goods or services to which the assets relate, typically the contract term. Amortization of contract cost assets was $109 million and $108 million for the year ended December 31, 2019 and 2018, respectively, and was included in Selling, general and administrative expenses.

Note 3 Fair Value Measurements

As of December 31, 2019 and 2018, U.S. Cellular did not have any material financial or nonfinancial assets or liabilities that were required to be recorded at fair value in its Consolidated Balance Sheet in accordance with GAAP.

The provisions of GAAP establish a fair value hierarchy that contains three levels for inputs used in fair value measurements. Level 1 inputs include quoted market prices for identical assets or liabilities in active markets. Level 2 inputs include quoted market prices for similar assets and liabilities in active markets or quoted market prices for identical assets and liabilities in inactive markets. Level 3 inputs are unobservable. A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. A financial instrument's level within the fair value hierarchy is not representative of its expected performance or its overall risk profile and, therefore, Level 3 assets are not necessarily higher risk than Level 2 assets or Level 1 assets.

U.S. Cellular has applied the provisions of fair value accounting for purposes of computing the fair value of financial instruments for disclosure purposes as displayed below.

	Level within the Fair Value Hierarchy	**December 31, 2019**		December 31, 2018	
		Book Value	**Fair Value**	Book Value	Fair Value
(Dollars in millions)					
Cash and cash equivalents	1	**$ 285**	**$ 285**	$ 580	$ 580
Short-term investments	1	**—**	**—**	17	17
Long-term debt					
Retail	2	**917**	**943**	917	850
Institutional	2	**534**	**594**	534	531
Other	2	**83**	**83**	180	180

The fair values of Cash and cash equivalents and Short-term investments approximate their book values due to the short-term nature of these financial instruments. Long-term debt excludes lease obligations, other installment arrangements, the current portion of Long-term debt and debt financing costs. The fair value of "Retail" Long-term debt was estimated using market prices for the 7.25% 2063 Senior Notes, 7.25% 2064 Senior Notes and 6.95% Senior Notes. U.S. Cellular's "Institutional" debt consists of the 6.7% Senior Notes which are traded over the counter. U.S. Cellular's "Other" debt consists of a senior term loan credit agreement. U.S. Cellular estimated the fair value of its Institutional and Other debt through a discounted cash flow analysis using the interest rates or estimated yield to maturity for each borrowing, which ranged from 3.55% to 5.73% and 5.03% to 6.97% at December 31, 2019 and 2018, respectively.

Note 4 Equipment Installment Plans

U.S. Cellular sells devices to customers under equipment installment plans over a specified time period. For certain equipment installment plans, after a specified period of time or amount of payments, the customer may have the right to upgrade to a new device and have the remaining unpaid equipment installment contract balance waived, subject to certain conditions, including trading in the original device in good working condition and signing a new equipment installment contract.

The following table summarizes equipment installment plan receivables as of December 31, 2019 and 2018.

December 31,	**2019**	2018
(Dollars in millions)		
Equipment installment plan receivables, gross	**$ 1,008**	$ 974
Allowance for credit losses	**(84)**	(77)
Equipment installment plan receivables, net	**$ 924**	$ 897
Net balance presented in the Consolidated Balance Sheet as:		
Accounts receivable — Customers and agents (Current portion)	**$ 587**	$ 560
Other assets and deferred charges (Non-current portion)	**337**	337
Equipment installment plan receivables, net	**$ 924**	$ 897

U.S. Cellular uses various inputs, including internal data, information from credit bureaus and other sources, to evaluate the credit profiles of its customers. From this evaluation, a credit class is assigned to the customer that determines the number of eligible lines, the amount of credit available, and the down payment requirement, if any. Customers assigned to credit classes requiring no down payment represent a lower risk category, whereas those assigned to credit classes requiring a down payment represent a higher risk category. A customer's assigned credit class is reviewed periodically and a change is made, if appropriate. The balance and aging of the equipment installment plan receivables on a gross basis by current credit category were as follows:

	December 31, 2019			December 31, 2018		
	Lower Risk	**Higher Risk**	**Total**	Lower Risk	Higher Risk	Total
(Dollars in millions)						
Unbilled	**$ 931**	**$ 11**	**$ 942**	$ 904	$ 17	$ 921
Billed — current	**44**	**1**	**45**	35	1	36
Billed — past due	**20**	**1**	**21**	15	2	17
Equipment installment plan receivables, gross	**$ 995**	**$ 13**	**$ 1,008**	$ 954	$ 20	$ 974

The activity in the allowance for credit losses for equipment installment plan receivables was as follows:

	2019	2018
(Dollars in millions)		
Allowance for credit losses, beginning of year	**$ 77**	$ 65
Bad debts expense	**82**	71
Write-offs, net of recoveries	**(75)**	(59)
Allowance for credit losses, end of year	**$ 84**	$ 77

Note 5 Income Taxes

U.S. Cellular is included in a consolidated federal income tax return and in certain state income tax returns with other members of the TDS consolidated group. For financial statement purposes, U.S. Cellular and its subsidiaries compute their income tax expense as if they comprised a separate affiliated group and were not included in the TDS consolidated group.

U.S. Cellular’s current income taxes balances at December 31, 2019 and 2018, were as follows:

December 31,	**2019**	2018
(Dollars in millions)		
Federal income taxes receivable	**$ 44**	$ 15
Net state income taxes receivable	**2**	—

Income tax expense (benefit) is summarized as follows:

Year Ended December 31,	**2019**	2018	2017
(Dollars in millions)			
Current			
Federal	**$ 44**	$ 48	$ 68
State	**12**	6	10
Deferred			
Federal	**—**	(5)	(354)
State	**(4)**	2	(11)
Total income tax expense (benefit)	**$ 52**	$ 51	$ (287)

In December 2017, the Tax Act was signed into law. Following the guidance of FASB Accounting Standards Update 2018-05, *Income Taxes: Amendments to SEC Paragraphs Pursuant to SEC Staff Accounting Bulletin No. 118*, Income tax expense (benefit) for the year ended December 31, 2017, included a provisional estimate for the impact of the Tax Act on U.S. Cellular's 2017 depreciation expense deduction. During 2018, U.S. Cellular completed a full analysis of depreciation expense deductions related to fixed assets placed in service during 2017 and Income tax expense (benefit) for 2018 included a benefit of $4 million related to this adjustment.

A reconciliation of U.S. Cellular's income tax expense computed at the statutory rate to the reported income tax expense, and the statutory federal income tax rate to U.S. Cellular's effective income tax rate is as follows:

Year Ended December 31,	**2019**		2018		2017	
	Amount	**Rate**	Amount	Rate	Amount	Rate
(Dollars in millions)						
Statutory federal income tax expense and rate	**$ 39**	**21.0 %**	$ 45	21.0 %	$ (95)	35.0 %
State income taxes, net of federal benefit[1]	**6**	**3.4**	9	4.0	(4)	1.4
Effect of noncontrolling interests	**(1)**	**(0.5)**	(1)	(0.4)	(2)	0.8
Federal income tax rate change[2]	**—**	**—**	(4)	(2.0)	(254)	93.3
Change in federal valuation allowance[3]	**7**	**3.6**	(1)	(0.3)	(5)	1.9
Goodwill impairment[4]	**—**	**—**	—	—	71	(26.2)
Nondeductible compensation	**2**	**1.3**	4	1.8	4	(1.5)
Tax credits	**(3)**	**(1.5)**	—	(0.1)	—	0.1
Other differences, net	**2**	**0.8**	(1)	(0.3)	(2)	0.7
Total income tax expense (benefit) and rate	**$ 52**	**28.1 %**	$ 51	23.7 %	$ (287)	105.5 %

1 State income taxes, net of federal benefit, include changes in unrecognized tax benefits as well as adjustments to the valuation allowance.

2 The Tax Act reduced the federal income tax rate from 35% to 21% for years after 2017. The $4 million tax benefit in 2018 relates primarily to finalizing the analysis for 2017 depreciation deductions as described above. The $254 million tax benefit in 2017 related to adjusting the deferred tax liability to the lower tax rate upon enactment of the Tax Act.

3 Change in federal valuation allowance in 2019 is due primarily to interest expense carryforwards not expected to be realized. The 2018 change also includes a change in judgment related to net operating loss carryforwards that are now realizable due to an internal restructuring.

4 Goodwill impairment reflects an adjustment to increase 2017 income tax expense by $71 million related to a portion of the impaired goodwill that is not amortizable for income tax purposes. See Note 7 — Intangible Assets for additional information related to the goodwill impairment.

Significant components of U.S. Cellular's deferred income tax assets and liabilities at December 31, 2019 and 2018, were as follows[1]:

December 31,	**2019**	2018
(Dollars in millions)		
Deferred tax assets		
Net operating loss (NOL) carryforwards	**$ 96**	$ 96
Lease liabilities	**230**	—
Asset retirement obligation	**45**	43
Other	**84**	114
Total deferred tax assets	**455**	253
Less valuation allowance	**(90)**	(75)
Net deferred tax assets	**365**	178
Deferred tax liabilities		
Property, plant and equipment	**284**	299
Licenses/intangibles	**230**	207
Partnership investments	**131**	133
Lease assets	**206**	—
Other	**21**	49
Total deferred tax liabilities	**872**	688
Net deferred income tax liability	**$ 507**	$ 510

1 Certain prior year deferred tax assets and liabilities have been reclassified to align with the current year presentation.

At December 31, 2019, U.S. Cellular and certain subsidiaries had $1,895 million of state NOL carryforwards (generating a $86 million deferred tax asset) available to offset future taxable income. The state NOL carryforwards expire between 2020 and 2039. Certain subsidiaries had federal NOL carryforwards (generating a $10 million deferred tax asset) available to offset their future taxable income. The federal NOL carryforwards generally expire between 2020 and 2037, with the exception of federal NOLs generated after 2017, which do not expire. A valuation allowance was established for certain state NOL carryforwards and federal NOL carryforwards since it is more likely than not that a portion of such carryforwards will expire before they can be utilized.

A summary of U.S. Cellular's deferred tax asset valuation allowance is as follows:

	2019	2018	2017
(Dollars in millions)			
Balance at beginning of year	$ 75	$ 77	$ 65
Charged to income tax expense	15	5	12
Charged to Retained earnings	—	(7)	—
Balance at end of year	$ 90	$ 75	$ 77

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

	2019	2018	2017
(Dollars in millions)			
Unrecognized tax benefits balance at beginning of year	$ 48	$ 47	$ 43
Additions for tax positions of current year	7	6	6
Additions for tax positions of prior years	—	1	1
Reductions for tax positions of prior years	(6)	—	(1)
Reductions for settlements of tax positions	(1)	—	—
Reductions for lapses in statutes of limitations	—	(6)	(2)
Unrecognized tax benefits balance at end of year	$ 48	$ 48	$ 47

Unrecognized tax benefits are included in Accrued taxes and Other deferred liabilities and credits in the Consolidated Balance Sheet. If these benefits were recognized, they would have reduced income tax expense in 2019, 2018 and 2017 by $37 million, $38 million and $38 million, respectively, net of the federal benefit from state income taxes.

U.S. Cellular recognizes accrued interest and penalties related to unrecognized tax benefits in Income tax expense (benefit). The amounts charged to income tax expense related to interest and penalties resulted in an expense of $3 million in 2019, a benefit of less than $1 million in 2018 and an expense of $3 million in 2017. Net accrued liabilities for interest and penalties were $21 million and $19 million at December 31, 2019 and 2018, respectively, and are included in Other deferred liabilities and credits in the Consolidated Balance Sheet.

U.S. Cellular is included in TDS' consolidated federal and certain state income tax returns. U.S. Cellular also files certain state and local income tax returns separately from TDS. With limited exceptions, TDS is no longer subject to federal and state income tax audits for the years prior to 2016.

Note 6 Earnings Per Share

Basic earnings per share attributable to U.S. Cellular shareholders is computed by dividing Net income attributable to U.S. Cellular shareholders by the weighted average number of Common Shares outstanding during the period. Diluted earnings per share attributable to U.S. Cellular shareholders is computed by dividing Net income attributable to U.S. Cellular shareholders by the weighted average number of Common Shares outstanding during the period adjusted to include the effects of potentially dilutive securities. Potentially dilutive securities primarily include incremental shares issuable upon the exercise of outstanding stock options and the vesting of performance and restricted stock units.

The amounts used in computing basic and diluted earnings per share attributable to U.S. Cellular shareholders were as follows:

Year Ended December 31,	2019	2018	2017
(Dollars and shares in millions, except per share amounts)			
Net income attributable to U.S. Cellular shareholders	$ 127	$ 150	$ 12
Weighted average number of shares used in basic earnings per share	86	86	85
Effects of dilutive securities	2	1	1
Weighted average number of shares used in diluted earnings per share	88	87	86
Basic earnings per share attributable to U.S. Cellular shareholders	$ 1.47	$ 1.75	$ 0.14
Diluted earnings per share attributable to U.S. Cellular shareholders	$ 1.44	$ 1.72	$ 0.14

Certain Common Shares issuable upon the exercise of stock options or vesting of performance and restricted stock units were not included in weighted average diluted shares outstanding for the calculation of Diluted earnings per share attributable to U.S. Cellular shareholders because their effects were antidilutive. The number of such Common Shares excluded was less than 1 million shares, 2 million shares and 3 million shares for 2019, 2018 and 2017, respectively.

Note 7 Intangible Assets

Licenses

U.S. Cellular reviews attractive opportunities to acquire additional wireless spectrum, including pursuant to FCC auctions. U.S. Cellular also may seek to divest outright or include in exchanges wireless spectrum that is not strategic to its long-term success. Activity related to U.S. Cellular's Licenses is presented below.

	2019	2018
(Dollars in millions)		
Balance at beginning of year	**$ 2,186**	$ 2,223
Acquisitions	**267**	8
Transferred to Assets held for sale	**—**	(51)
Divestitures	**(10)**	(11)
Exchanges - Licenses received	**26**	18
Exchanges - Licenses surrendered	**—**	(1)
Capitalized interest	**2**	—
Balance at end of year	**$ 2,471**	$ 2,186

Auctions 101 and 102

In June 2019, the FCC announced by way of public notice that U.S. Cellular was the provisional winning bidder for 408 wireless spectrum licenses in its 28 GHz auction (Auction 101) and 282 wireless spectrum licenses in its 24 GHz auction (Auction 102) for an aggregate purchase price of $256 million. U.S. Cellular paid substantially all of the $256 million in the first half of 2019. The wireless spectrum licenses from Auction 101 were granted by the FCC on October 2, 2019, and the wireless spectrum licenses from Auction 102 were granted by the FCC on December 11, 2019.

Goodwill — Interim Impairment Assessment in 2017

Based on 2017 developments, including wireless expansion plans announced by other companies and the results of the FCC’s forward auction of 600 MHz wireless spectrum licenses and other FCC actions, U.S. Cellular anticipated increased competition for customers in its primary operating markets from new and existing market participants over the long term. In addition, the widening adoption of unlimited data plans and other data pricing constructs across the industry, including U.S. Cellular’s introduction of unlimited plans in 2017, may limit the industry’s ability to monetize future growth in data usage. These factors when assessed and considered as part of U.S. Cellular’s annual planning process conducted in the third quarter of each year caused management to revise its long-range financial forecast in the third quarter of 2017. Based on the factors noted above, management identified a triggering event and performed a quantitative goodwill impairment test during the third quarter of 2017.

The results of the interim goodwill impairment test indicated that the carrying value of the U.S. Cellular reporting unit exceeded its fair value. Therefore, U.S. Cellular recognized a loss on impairment of goodwill of $370 million to reduce the carrying value of goodwill to zero in the third quarter of 2017.

Note 8 Investments in Unconsolidated Entities

Investments in unconsolidated entities consist of amounts invested in entities in which U.S. Cellular holds a noncontrolling interest. U.S. Cellular's Investments in unconsolidated entities are accounted for using either the equity method or measurement alternative method as shown in the table below. The carrying value of measurement alternative method investments represents cost minus any impairments plus or minus any observable price changes.

December 31,	**2019**	2018
(Dollars in millions)		
Equity method investments:		
Capital contributions, loans, advances and adjustments	**$ 105**	$ 105
Cumulative share of income	**2,060**	1,892
Cumulative share of distributions	**(1,725)**	(1,563)
Total equity method investments	**440**	434
Measurement alternative method investments	**7**	7
Total investments in unconsolidated entities	**$ 447**	$ 441

The following tables, which are based on information provided in part by third parties, summarize the combined assets, liabilities and equity, and results of operations of U.S. Cellular's equity method investments:

December 31,	**2019**	2018
(Dollars in millions)		
Assets		
Current	**$ 1,477**	$ 1,261
Noncurrent	**5,725**	4,962
Total assets	**$ 7,202**	$ 6,223
Liabilities and Equity		
Current liabilities	**$ 625**	$ 434
Noncurrent liabilities	**1,119**	395
Partners' capital and shareholders' equity	**5,458**	5,394
Total liabilities and equity	**$ 7,202**	$ 6,223

Year Ended December 31,	**2019**	2018	2017
(Dollars in millions)			
Results of Operations			
Revenues	**$ 6,903**	$ 6,777	$ 6,562
Operating expenses	**5,022**	4,965	4,965
Operating income	**1,881**	1,812	1,597
Other income (expense), net	**(22)**	11	(1)
Net income	**$ 1,859**	$ 1,823	$ 1,596

Note 9 Property, Plant and Equipment

Property, plant and equipment in service and under construction, and related accumulated depreciation and amortization, as of December 31, 2019 and 2018, were as follows:

December 31,	Useful Lives (Years)	2019	2018
(Dollars in millions)			
Land	N/A	$ **35**	$ 35
Buildings	20	**295**	296
Leasehold and land improvements	1-30	**1,280**	1,210
Cell site equipment	7-25	**3,708**	3,460
Switching equipment	5-8	**1,051**	1,018
Office furniture and equipment	3-5	**280**	285
Other operating assets and equipment	3-5	**48**	51
System development	1-7	**1,238**	1,149
Work in process	N/A	**358**	274
Total property, plant and equipment, gross		**8,293**	7,778
Accumulated depreciation and amortization		**(6,086)**	(5,576)
Total property, plant and equipment, net		$ **2,207**	$ 2,202

Depreciation and amortization expense totaled $689 million, $627 million and $604 million in 2019, 2018 and 2017, respectively. In 2019, 2018 and 2017, (Gain) loss on asset disposals, net included charges of $19 million, $10 million and $17 million, respectively, related to disposals of assets, trade-ins of older assets for replacement assets and other retirements of assets from service in the normal course of business.

Note 10 Leases

Change in Accounting Policy

In February 2016, the FASB issued Accounting Standards Update 2016-02, *Leases* and subsequently amended the standard with several Accounting Standards Updates, collectively referred to as ASC 842. This standard replaces the previous lease accounting standard under ASC 840 - *Leases* and requires lessees to record a right-of-use (ROU) asset and lease liability for the majority of leases. U.S. Cellular adopted the provisions of ASC 842 on January 1, 2019, using a modified retrospective method. Under this method, U.S. Cellular elected to apply the new accounting standard only to the most recent period presented, recognizing the cumulative effect of the accounting change, if any, as an adjustment to the beginning balance of retained earnings. Accordingly, prior periods have not been recast to reflect the new accounting standard. The cumulative effect of applying the provisions of ASC 842 had no material impact on retained earnings.

U.S. Cellular elected transitional practical expedients for existing leases which eliminated the requirements to reassess existing lease classification, initial direct costs, and whether contracts contain leases. U.S. Cellular also elected the practical expedient related to land easements that allows it to carry forward the accounting treatment for pre-existing land easement agreements.

The cumulative effect of the adoption of ASC 842 on U.S. Cellular's Consolidated Balance Sheet as of January 1, 2019 is presented below.

	December 31, 2018	ASC 842 Adjustment	January 1, 2019
(Dollars in millions)			
Prepaid expenses	$ 63	$ (13)	$ 50
Operating lease right-of-use assets	—	899	899
Other assets and deferred charges	579	(12)	567
Short-term operating lease liabilities	—	101	101
Other current liabilities	94	(8)	86
Long-term operating lease liabilities	—	878	878
Other deferred liabilities and credits	389	(97)	292

In connection with the adoption of ASC 842, U.S. Cellular recorded ROU assets and lease liabilities for its operating leases in its Consolidated Balance Sheet as of January 1, 2019. The amounts for ROU assets and lease liabilities initially were calculated as the discounted value of future lease payments. The difference between the ROU assets and the corresponding lease liabilities at January 1, 2019 as shown in the table above resulted from adjustments to ROU assets to account for various lease prepayments and straight-line expense recognition deferral balances which existed as of December 31, 2018. Finance leases are included in Property, plant and equipment and Long-term debt, net consistent with the presentation under prior accounting standards.

Lessee Agreements

A lease is generally present in a contract if the lessee controls the use of identified property, plant or equipment for a period of time in exchange for consideration. Nearly all of U.S. Cellular's leases are classified as operating leases, although it does have a small number of finance leases. U.S. Cellular's most significant leases are for land and tower spaces, network facilities, retail spaces, and offices.

U.S. Cellular has agreements with both lease and nonlease components, which are accounted for separately. As part of the present value calculation for the lease liabilities, U.S. Cellular uses an incremental borrowing rate as the rates implicit in the leases are not readily determinable. The incremental borrowing rates used for lease accounting are based on U.S. Cellular's unsecured rates, adjusted to approximate the rates at which U.S. Cellular would be required to borrow on a collateralized basis over a term similar to the recognized lease term. U.S. Cellular applies the incremental borrowing rates to lease components using a portfolio approach based upon the length of the lease term. The cost of nonlease components in U.S. Cellular's lease portfolio (e.g., utilities and common area maintenance) are not typically predetermined at lease commencement and are expensed as incurred at their relative standalone price.

Variable lease expense occurs when, subsequent to the lease commencement, lease payments are made that were not originally included in the lease liability calculation. U.S. Cellular's variable lease payments are primarily a result of leases with escalations that are tied to an index. The incremental changes due to the index changes are recorded as variable lease expense and are not included in the ROU assets or lease liabilities.

The identified lease term determines the periods to which expense is allocated and also has a significant impact on the ROU asset and lease liability calculations. Many of U.S. Cellular's leases include renewal and early termination options. At lease commencement, the lease terms include options to extend the lease when U.S. Cellular is reasonably certain that it will exercise the options. The lease terms do not include early termination options unless U.S. Cellular is reasonably certain to exercise the options. Certain asset classes have similar lease characteristics; therefore, U.S. Cellular has applied the portfolio approach for lease term recognition for its tower space, retail, and certain ground lease asset classes.

The following table shows the components of lease cost included in the Consolidated Statement of Operations:

	Year Ended December 31, 2019
(Dollars in millions)	
Operating lease cost	$ 163
Financing lease cost:	
Amortization of ROU assets	1
Variable lease cost	7
Total lease cost	$ 171

The following table shows supplemental cash flow information related to lease activities:

	Year Ended December 31, 2019
(Dollars in millions)	
Cash paid for amounts included in the measurement of lease liabilities:	
Operating cash flows from operating leases	$ 156
Operating cash flows from finance leases	1
ROU assets obtained in exchange for lease obligations:	
Operating leases	$ 125

The following table shows the classification of U.S. Cellular's finance leases in its Consolidated Balance Sheet:

	December 31, 2019
(Dollars in millions)	
Finance Leases	
Property, plant and equipment	$ 7
Less: Accumulated depreciation and amortization	4
Property, plant and equipment, net	$ 3
Current portion of long-term debt	1
Long-term debt, net	$ 3
Total finance lease liabilities	$ 4

The table below shows a weighted-average analysis for lease terms and discount rates for all leases:

	December 31, 2019
Weighted Average Remaining Lease Term	
Operating leases	13 years
Finance leases	25 years
Weighted Average Discount Rate	
Operating leases	4.4
Finance leases	7.0

The maturities of lease liabilities are as follows:

	Operating Leases	Finance Leases
(Dollars in millions)		
2020	$ 144	$ 1
2021	145	—
2022	129	—
2023	112	1
2024	95	1
Thereafter	712	11
Total lease payments[1]	$ 1,337	$ 14
Less: Imputed interest	367	10
Present value of lease liabilities	$ 970	$ 4

1 Lease payments exclude $27 million of legally binding lease payments for leases signed but not yet commenced.

Lessor Agreements

U.S. Cellular's most significant lessor leases are for tower space. All of U.S. Cellular's lessor leases are classified as operating leases. A lease is generally present in a contract if the lessee controls the use of identified property, plant, or equipment for a period of time in exchange for consideration. U.S. Cellular's lessor agreements with lease and nonlease components are generally accounted for separately.

The identified lease term determines the periods to which revenue is allocated over the term of the lease. Many of U.S. Cellular's leases include renewal and early termination options. At lease commencement, lease terms include options to extend the lease when U.S. Cellular is reasonably certain that lessees will exercise the options. Lease terms would not include periods after the date of a termination option that lessees are reasonably certain to exercise.

Variable lease income occurs when, subsequent to the lease commencement, lease payments are received that were not originally included in the lease receivable calculation. U.S. Cellular's variable lease income is primarily a result of leases with escalations that are tied to an index. The incremental increases due to the index changes are recorded as variable lease income.

The following table shows the components of lease income which are included in Service revenues in the Consolidated Statement of Operations:

	Year Ended December 31, 2019
(Dollars in millions)	
Operating lease income[1]	$ 74

1 During the third quarter of 2019, U.S. Cellular recorded an out-of-period adjustment attributable to 2009 through the second quarter of 2019 due to errors in the timing of recognition of revenue for certain tower leases. This out-of-period adjustment had the impact of increasing operating lease income by $5 million for the year ended December 31, 2019. U.S. Cellular determined that this adjustment was not material to any of the periods impacted.

The maturities of expected lease payments to be received are as follows:

	Operating Leases
(Dollars in millions)	
2020	$ 60
2021	55
2022	42
2023	30
2024	15
Thereafter	3
Total future lease maturities	$ 205

Disclosures under ASC 840

As of December 31, 2018, future minimum rental payments required under operating leases and rental receipts expected under operating leases that had noncancellable lease terms in excess of one year were as follows:

	Operating Leases Future Minimum Rental Payments	Operating Leases Future Minimum Rental Receipts
(Dollars in millions)		
2019	$ 154	58
2020	143	47
2021	128	34
2022	112	22
2023	97	10
Thereafter	769	3
Total	$ 1,403	174

Rent expense totaled $173 million and $166 million in 2018 and 2017, respectively.

Note 11 Asset Retirement Obligations

U.S. Cellular is subject to asset retirement obligations associated with its leased cell sites, switching office sites, retail store sites and office locations. Asset retirement obligations generally include obligations to restore leased land, towers, retail store and office premises to their pre-lease conditions. These obligations are included in Other deferred liabilities and credits in the Consolidated Balance Sheet.

In 2019 and 2018, U.S. Cellular performed a review of the assumptions and estimated costs related to its asset retirement obligations. The results of the reviews (identified as Revisions in estimated cash outflows) and other changes in asset retirement obligations during 2019 and 2018, were as follows:

(Dollars in millions)	**2019**	2018
Balance at beginning of year	**$ 203**	$ 183
Additional liabilities accrued	**2**	2
Revisions in estimated cash outflows	**2**	8
Disposition of assets	**(1)**	(1)
Accretion expense	**14**	12
Transferred to Liabilities held for sale	**—**	(1)
Balance at end of year	**$ 220**	$ 203

Note 12 Debt

Revolving Credit Agreement

At December 31, 2019, U.S. Cellular had a revolving credit agreement available for general corporate purposes including spectrum purchases and capital expenditures. Amounts under the revolving credit agreement may be borrowed, repaid and reborrowed from time to time until maturity in May 2023. As of December 31, 2019, there were no outstanding borrowings under the revolving credit agreement, except for letters of credit. Interest expense representing commitment fees on the unused portion of the revolving line of credit was $1 million in each of 2019, 2018 and 2017. The commitment fees are based on the unsecured senior debt ratings assigned to U.S. Cellular by certain ratings agencies.

The following table summarizes the revolving credit agreement as of December 31, 2019:

(Dollars in millions)	
Maximum borrowing capacity	$ 300
Letters of credit outstanding	$ 2
Amount borrowed	$ —
Amount available for use	$ 298

Borrowings under the revolving credit agreement bear interest either at a London Inter-bank Offered Rate (LIBOR) plus 1.75% or at an alternative Base Rate as defined in the revolving credit agreement plus 0.75%, at U.S. Cellular's option. U.S. Cellular may select a borrowing period of either one, two, three or six months (or other period of twelve months or less if requested by U.S. Cellular and approved by the lenders). U.S. Cellular's credit spread and commitment fees on its revolving credit agreement may be subject to increase if its current credit rating from nationally recognized credit rating agencies is lowered, and may be subject to decrease if the rating is raised.

In connection with U.S. Cellular's revolving credit agreement, TDS and U.S. Cellular entered into a subordination agreement dated May 10, 2018, together with the administrative agent for the lenders under U.S. Cellular's revolving credit agreement. Pursuant to this subordination agreement, (a) any consolidated funded indebtedness from U.S. Cellular to TDS will be unsecured and (b) any (i) consolidated funded indebtedness from U.S. Cellular to TDS (other than "refinancing indebtedness" as defined in the subordination agreement) in excess of $105 million and (ii) refinancing indebtedness in excess of $250 million will be subordinated and made junior in right of payment to the prior payment in full of obligations to the lenders under U.S. Cellular's revolving credit agreement. As of December 31, 2019, U.S. Cellular had no outstanding consolidated funded indebtedness or refinancing indebtedness that was subordinated to the revolving credit agreement pursuant to the subordination agreement.

The continued availability of the revolving credit agreement requires U.S. Cellular to comply with certain negative and affirmative covenants, maintain certain financial ratios and make representations regarding certain matters at the time of each borrowing.

The revolving credit agreement includes the following financial covenants:

- Consolidated Interest Coverage Ratio may not be less than 3.00 to 1.00 as of the end of any fiscal quarter.
- Consolidated Leverage Ratio may not be greater than the ratios indicated as of the end of any fiscal quarter for each period specified below:

Period	Ratios
From the agreement date of May 10, 2018 through June 30, 2019	3.25 to 1.00
From July 1, 2019 and thereafter	3.00 to 1.00

Certain U.S. Cellular wholly-owned subsidiaries have jointly and severally unconditionally guaranteed the payment and performance of the obligations of U.S. Cellular under the revolving credit agreement pursuant to a guaranty dated May 10, 2018. Other subsidiaries that meet certain criteria will be required to provide a similar guaranty in the future. U.S. Cellular believes it was in compliance with all of the financial and other covenants and requirements set forth in its revolving credit agreement as of December 31, 2019.

Term Loan

In July 2015, U.S. Cellular borrowed $225 million on a senior term loan credit agreement in two separate draws. This agreement was entered into for general corporate purposes, including working capital, spectrum purchases and capital expenditures. This agreement was entered into in January 2015, amended and restated in June 2016, and further amended in May 2018 and March 2019. The interest rate on outstanding borrowings is reset at one, three or six month intervals at a rate of LIBOR plus 175 basis points. This credit agreement provides for the draws to be continued on a long-term basis under terms that are readily determinable. In October 2019, U.S. Cellular made a $100 million principal prepayment on the senior term loan. The remaining unpaid balance will be due and payable in January 2022. The senior term loan credit agreement contains financial covenants and subsidiary guarantees that are consistent with the revolving credit agreements described above. U.S. Cellular believes that it was in compliance with all of the financial and other covenants and requirements set forth in its term loan credit agreement as of December 31, 2019.

In connection with U.S. Cellular’s term loan credit agreement, TDS and U.S. Cellular entered into a subordination agreement in June 2016 together with the administrative agent for the lenders under U.S. Cellular’s term loan credit agreement, which is substantially the same as the subordination agreement for U.S. Cellular as described above under the “Revolving Credit Agreement.” As of December 31, 2019, U.S. Cellular had no outstanding consolidated funded indebtedness or refinancing indebtedness that was subordinated to the term loan agreement pursuant to this subordination agreement.

Receivables Securitization Agreement

In December 2017, U.S. Cellular, through its subsidiaries, entered into a $200 million credit agreement to permit securitized borrowings using its equipment installment receivables for general corporate purposes, including acquisitions, spectrum purchases and capital expenditures. In connection with the receivables securitization agreement, U.S. Cellular formed a wholly-owned subsidiary, USCC Master Note Trust (Trust), which qualifies as a bankruptcy remote entity. Under the terms of the agreement, U.S. Cellular, through its subsidiaries, transfers eligible equipment installment receivables to the Trust. The Trust then utilizes the transferred assets as collateral for notes payables issued to third party financial institutions. Since U.S. Cellular retains effective control of the transferred assets in the Trust, any activity associated with this receivables securitization agreement will be treated as a secured borrowing. Therefore, U.S. Cellular will continue to report equipment installment receivables and any related balances on the Consolidated Balance Sheet. Cash received from borrowings under the receivables securitization agreement will be reported as Debt. Refer to Note 14 — Variable Interest Entities for additional information.

U.S. Cellular entered into a performance guaranty whereby U.S. Cellular guarantees the performance of certain wholly-owned subsidiaries of U.S. Cellular under the receivables securitization agreement. Amounts under the receivables securitization agreement may be borrowed, repaid and reborrowed from time to time until maturity in December 2021, which may be extended from time to time as specified therein. As of December 31, 2019, there were no outstanding borrowings under the receivables securitization agreement, and the entire unused capacity of $200 million was available, subject to sufficient collateral to satisfy the asset borrowing base provisions of the agreement. Interest expense representing commitment fees on the unused portion of the agreement was $1 million, $1 million and zero for the years 2019, 2018 and 2017, respectively.

The continued availability of the receivables securitization agreement requires U.S. Cellular to comply with certain negative and affirmative covenants, maintain certain financial ratios and provide representations on certain matters at the time of each borrowing. The covenants include the same financial covenants for U.S. Cellular as described above under the “Revolving Credit Agreement.” U.S. Cellular believes that it was in compliance as of December 31, 2019, with all of the financial covenants and requirements set forth in its receivables securitization agreement.

Other Long-Term Debt

Long-term debt as of December 31, 2019 and 2018, was as follows:

	Issuance date	Maturity date	Call date (any time on or after)	December 31, 2019 Principal Amount	December 31, 2019 Less Unamortized discounts and debt issuance costs	December 31, 2019 Total	December 31, 2018 Principal Amount	December 31, 2018 Less Unamortized discount and debt issuance costs	December 31, 2018 Total
(Dollars in millions)									
Unsecured Senior Notes									
6.700%	Dec 2003 and June 2004	Dec 2033	Dec 2003 and June 2004	**$ 544**	**$ 13**	**$ 531**	$ 544	$ 14	$ 530
6.950%	May 2011	May 2060	May 2016	**342**	**11**	**331**	342	11	331
7.250%	Dec 2014	Dec 2063	Dec 2019	**275**	**10**	**265**	275	10	265
7.250%	Nov 2015	Dec 2064	Dec 2020	**300**	**10**	**290**	300	10	290
Term Loan	Jul 2015	Jan 2022		**83**	**1**	**82**	191	1	190
Finance lease obligations				**4**	**—**	**4**	5	—	5
Installment payment agreement				**7**	**—**	**7**	14	1	13
Total long-term debt				**$ 1,555**	**$ 45**	**$ 1,510**	$ 1,671	$ 47	$ 1,624
Long-term debt, current						**$ 8**			$ 19
Long-term debt, noncurrent						**$ 1,502**			$ 1,605

U.S. Cellular may redeem its 6.95% Senior Notes, 7.25% 2063 Senior Notes and 7.25% 2064 Senior Notes, in whole or in part at any time after the respective call date, at a redemption price equal to 100% of the principal amount redeemed plus accrued and unpaid interest. U.S. Cellular may redeem the 6.7% Senior Notes, in whole or in part, at any time prior to maturity at a redemption price equal to the greater of (a) 100% of the principal amount of such notes, plus accrued and unpaid interest, or (b) the sum of the present values of the remaining scheduled payments of principal and interest thereon discounted to the redemption date on a semi-annual basis at the Treasury Rate plus 30 basis points.

Interest on the Senior Notes outstanding at December 31, 2019, is payable quarterly, with the exception of the 6.7% Senior Notes for which interest is payable semi-annually.

The annual requirements for principal payments on long-term debt are approximately $8 million, less than $1 million, $83 million, less than $1 million and less than $1 million for the years 2020 through 2024, respectively.

The covenants associated with U.S. Cellular's long-term debt obligations, among other things, restrict U.S. Cellular's ability, subject to certain exclusions, to incur additional liens, enter into sale and leaseback transactions, and sell, consolidate or merge assets.

U.S. Cellular's long-term debt notes do not contain any provisions resulting in acceleration of the maturities of outstanding debt in the event of a change in U.S. Cellular's credit rating.

Note 13 Commitments and Contingencies

Purchase Obligations

U.S. Cellular has obligations payable under non-cancellable contracts, commitments for device purchases, network facilities and transport services, agreements for software licensing, long-term marketing programs, as well as certain agreements to purchase goods or services. For certain contracts, U.S. Cellular calculates its obligation based on termination fees that can be paid to exit the contract. Future minimum payments required under these commitments as of December 31, 2019 are as follows:

	Purchase Obligations
(Dollars in millions)	
2020	$ 924
2021	436
2022	748
2023	61
2024	39
Thereafter	36
Total	$ 2,244

Subsequent to December 31, 2019, U.S. Cellular committed to purchase assets in the amount of $146 million, subject to regulatory approval. This amount is not included in the 2020 purchase obligations above, which are stated as of December 31, 2019.

Indemnifications

U.S. Cellular enters into agreements in the normal course of business that provide for indemnification of counterparties. The terms of the indemnifications vary by agreement. The events or circumstances that would require U.S. Cellular to perform under these indemnities are transaction specific; however, these agreements may require U.S. Cellular to indemnify the counterparty for costs and losses incurred from litigation or claims arising from the underlying transaction. U.S. Cellular is unable to estimate the maximum potential liability for these types of indemnifications as the amounts are dependent on the outcome of future events, the nature and likelihood of which cannot be determined at this time. Historically, U.S. Cellular has not made any significant indemnification payments under such agreements.

Legal Proceedings

U.S. Cellular is involved or may be involved from time to time in legal proceedings before the FCC, other regulatory authorities, and/or various state and federal courts. If U.S. Cellular believes that a loss arising from such legal proceedings is probable and can be reasonably estimated, an amount is accrued in the financial statements for the estimated loss. If only a range of loss can be determined, the best estimate within that range is accrued; if none of the estimates within that range is better than another, the low end of the range is accrued. The assessment of the expected outcomes of legal proceedings is a highly subjective process that requires judgments about future events. The legal proceedings are reviewed at least quarterly to determine the adequacy of accruals and related financial statement disclosures. The ultimate outcomes of legal proceedings could differ materially from amounts accrued in the financial statements. U.S. Cellular has recorded no accrual with respect to legal proceedings and unasserted claims as of December 31, 2019 and 2018, respectively.

In April 2018, the United States Department of Justice (DOJ) notified U.S. Cellular and its parent, TDS, that it was conducting inquiries of U.S. Cellular and TDS under the federal False Claims Act relating to U.S. Cellular's participation in wireless spectrum license auctions 58, 66, 73 and 97 conducted by the FCC. U.S. Cellular is/was a limited partner in several limited partnerships which qualified for the 25% bid credit in each auction. The investigation arose from civil actions under the Federal False Claims Act brought by private parties in the U.S. District Court for the Western District of Oklahoma. In November and December 2019, following the DOJ's investigation, the DOJ informed TDS and U.S. Cellular that it would not intervene in the above referenced actions. In addition, on December 5, 2019, the District Court unsealed the complaints. The private party plaintiffs have advised TDS and U.S. Cellular of their intent to pursue the matter and intent to serve the complaint on TDS and U.S. Cellular within the required 90 days of the Court's unsealing of the complaint. U.S. Cellular believes that its arrangements with the limited partnerships and the limited partnerships' participation in the FCC auctions complied with applicable law and FCC rules. At this time, U.S. Cellular cannot predict the outcome of any proceeding.

Note 14 Variable Interest Entities

Consolidated VIEs

U.S. Cellular consolidates VIEs in which it has a controlling financial interest as defined by GAAP and is therefore deemed the primary beneficiary. A controlling financial interest will have both of the following characteristics: (a) the power to direct the VIE activities that most significantly impact economic performance; and (b) the obligation to absorb the VIE losses and the right to receive benefits that are significant to the VIE. U.S. Cellular reviews these criteria initially at the time it enters into agreements and subsequently when events warranting reconsideration occur. These VIEs have risks similar to those described in the “Risk Factors” in U.S. Cellular’s Form 10-K for the year ended December 31, 2019.

During 2017, U.S. Cellular formed USCC EIP LLC (Seller/Sub-Servicer), USCC Receivables Funding LLC (Transferor) and the Trust, collectively the special purpose entities (SPEs), to facilitate a securitized borrowing using its equipment installment plan receivables. Under a Receivables Sale Agreement, U.S. Cellular wholly-owned, majority-owned and unconsolidated entities, collectively referred to as “affiliated entities”, transfer device equipment installment plan contracts to the Seller/Sub-Servicer. The Seller/Sub-Servicer aggregates device equipment installment plan contracts, and performs servicing, collection and all other administrative activities related to accounting for the equipment installment plan contracts. The Seller/Sub-Servicer sells the eligible equipment installment plan receivables to the Transferor, a bankruptcy remote entity, which subsequently sells the receivables to the Trust. The Trust, which is bankruptcy remote and isolated from the creditors of U.S. Cellular, will be responsible for issuing asset-backed variable funding notes (Notes), which are collateralized by the equipment installment plan receivables owned by the Trust. Given that U.S. Cellular has the power to direct the activities of these SPEs, and that these SPEs lack sufficient equity to finance their activities, U.S. Cellular is deemed to have a controlling financial interest in the SPEs and, therefore, consolidates them. All transactions with third parties (e.g., issuance of the asset-backed variable funding notes) will be accounted for as a secured borrowing due to the pledging of equipment installment plan contracts as collateral, significant continuing involvement in the transferred assets, subordinated interests of the cash flows, and continued evidence of control of the receivables. Refer to Note 12 — Debt, Receivables Securitization Agreement for additional details regarding the securitization agreement for which these entities were established.

The following VIEs were formed to participate in FCC auctions of wireless spectrum licenses and to fund, establish, and provide wireless service with respect to any FCC wireless spectrum licenses won in the auctions:

- Advantage Spectrum, L.P. (Advantage Spectrum) and Sunshine Spectrum, Inc., the general partner of Advantage Spectrum; and
- King Street Wireless, L.P. (King Street Wireless) and King Street Wireless, Inc., the general partner of King Street Wireless.

These particular VIEs are collectively referred to as designated entities. The power to direct the activities that most significantly impact the economic performance of these VIEs is shared. Specifically, the general partner of these VIEs has the exclusive right to manage, operate and control the limited partnerships and make all decisions to carry on the business of the partnerships. The general partner of each partnership needs the consent of the limited partner, an indirect U.S. Cellular subsidiary, to sell or lease certain wireless spectrum licenses, to make certain large expenditures, admit other partners or liquidate the limited partnerships. Although the power to direct the activities of these VIEs is shared, U.S. Cellular has the most significant level of exposure to the variability associated with the economic performance of the VIEs, indicating that U.S. Cellular is the primary beneficiary of the VIEs. Therefore, in accordance with GAAP, these VIEs are consolidated.

U.S. Cellular also consolidates other VIEs that are limited partnerships that provide wireless service. A limited partnership is a variable interest entity unless the limited partners hold substantive participating rights or kick-out rights over the general partner. For certain limited partnerships, U.S. Cellular is the general partner and manages the operations. In these partnerships, the limited partners do not have substantive kick-out or participating rights and, further, such limited partners do not have the authority to remove the general partner. Therefore, these limited partnerships are also recognized as VIEs and are consolidated under the variable interest model.

The following table presents the classification and balances of the consolidated VIEs' assets and liabilities in U.S. Cellular's Consolidated Balance Sheet.

December 31,	2019	2018
(Dollars in millions)		
Assets		
Cash and cash equivalents	$ 19	$ 9
Short-term investments	—	17
Accounts receivable	639	611
Inventory, net	6	5
Other current assets	7	6
Assets held for sale	—	4
Licenses	649	652
Property, plant and equipment, net	104	94
Operating lease right-of-use assets	44	—
Other assets and deferred charges	346	349
Total assets	$ 1,814	$ 1,747
Liabilities		
Current liabilities	$ 32	$ 34
Liabilities held for sale	—	1
Long-term operating lease liabilities	41	—
Other deferred liabilities and credits	14	16
Total liabilities	$ 87	$ 51

Unconsolidated VIEs

U.S. Cellular manages the operations of and holds a variable interest in certain other limited partnerships, but is not the primary beneficiary of these entities and, therefore, does not consolidate them under the variable interest model.

U.S. Cellular's total investment in these unconsolidated entities was $5 million and $4 million at December 31, 2019 and 2018, respectively, and is included in Investments in unconsolidated entities in U.S. Cellular's Consolidated Balance Sheet. The maximum exposure from unconsolidated VIEs is limited to the investment held by U.S. Cellular in those entities.

Other Related Matters

U.S. Cellular made contributions, loans and/or advances to its VIEs totaling $255 million, $152 million and $821 million during 2019, 2018 and 2017, respectively; of which $214 million in 2019, $116 million in 2018 and $790 million in 2017 are related to USCC EIP LLC as discussed above. U.S. Cellular may agree to make additional capital contributions and/or advances to these or other VIEs and/or to their general partners to provide additional funding for operations or the development of wireless spectrum licenses granted in various auctions. U.S. Cellular may finance such amounts with a combination of cash on hand, borrowings under its revolving credit agreement and/or other long-term debt. There is no assurance that U.S. Cellular will be able to obtain additional financing on commercially reasonable terms or at all to provide such financial support.

The limited partnership agreements of Advantage Spectrum and King Street Wireless also provide the general partner with a put option whereby the general partner may require the limited partner, a subsidiary of U.S. Cellular, to purchase its interest in the limited partnership. The general partner's put options related to its interests in King Street Wireless became exercisable in 2019. The general partner's put options related to its interest in Advantage Spectrum will become exercisable in 2021 and 2022. The greater of the carrying value of the general partner's investment or the value of the put option, net of any borrowings due to U.S. Cellular is recorded as Noncontrolling interests with redemption features in U.S. Cellular's Consolidated Balance Sheet. Also in accordance with GAAP, minority share of income or changes in the redemption value of the put options, net of interest accrued on the loans, are recorded as a component of Net income attributable to noncontrolling interests, net of tax, in U.S. Cellular's Consolidated Statement of Operations.

During the first quarter of 2018, U.S. Cellular recorded an out-of-period adjustment attributable to 2016 and 2017 due to errors in the application of accounting guidance applicable to the calculation of Noncontrolling interests with redemption features related to King Street Wireless, Inc. This out-of-period adjustment had the impact of increasing Net income attributable to noncontrolling interests, net of tax, by $8 million and decreasing Net income attributable to U.S. Cellular shareholders by $8 million in 2018. U.S. Cellular determined that this adjustment was not material to any of the periods impacted.

Note 15 Noncontrolling Interests

U.S. Cellular’s consolidated financial statements include certain noncontrolling interests that meet the GAAP definition of mandatorily redeemable financial instruments. These mandatorily redeemable noncontrolling interests represent interests held by third parties in consolidated partnerships, where the terms of the underlying partnership agreement provide for a defined termination date at which time the assets of the subsidiary are to be sold, the liabilities are to be extinguished and the remaining net proceeds are to be distributed to the noncontrolling interest holders and U.S. Cellular in accordance with the respective partnership agreements. The termination dates of these mandatorily redeemable noncontrolling interests range from 2085 to 2092.

The estimated aggregate amount that would be due and payable to settle all of these noncontrolling interests, assuming an orderly liquidation of the finite-lived consolidated partnerships on December 31, 2019, net of estimated liquidation costs, is $36 million. This amount excludes redemption amounts recorded in Noncontrolling interests with redemption features in the Consolidated Balance Sheet. The estimate of settlement value was based on certain factors and assumptions which are subjective in nature. Changes in those factors and assumptions could result in a materially larger or smaller settlement amount. The corresponding carrying value of the mandatorily redeemable noncontrolling interests in finite-lived consolidated partnerships at December 31, 2019, was $15 million, and is included in Noncontrolling interests in the Consolidated Balance Sheet. The excess of the aggregate settlement value over the aggregate carrying value of these mandatorily redeemable noncontrolling interests is due primarily to the unrecognized appreciation of the noncontrolling interest holders’ share of the underlying net assets in the consolidated partnerships. Neither the noncontrolling interest holders’ share, nor U.S. Cellular’s share, of the appreciation of the underlying net assets of these subsidiaries is reflected in the consolidated financial statements.

Note 16 Common Shareholders’ Equity

Series A Common Shares

Series A Common Shares are convertible on a share-for-share basis into Common Shares. In matters other than the election of directors, each Series A Common Share is entitled to ten votes per share, compared to one vote for each Common Share. The Series A Common Shares are entitled to elect 75% of the directors (rounded down), and the Common Shares elect 25% of the directors (rounded up). As of December 31, 2019, a majority of U.S. Cellular’s outstanding Common Shares and all of U.S. Cellular’s outstanding Series A Common Shares were held by TDS.

Common Share Repurchase Program

In November 2009, U.S. Cellular announced by Form 8-K that the Board of Directors of U.S. Cellular authorized the repurchase of up to 1,300,000 Common Shares on an annual basis beginning in 2009 and continuing each year thereafter, on a cumulative basis. In December 2016, the U.S. Cellular Board amended this authorization to provide that, beginning on January 1, 2017, the authorized repurchase amount with respect to a particular year will be any amount from zero to 1,300,000 Common Shares, as determined by the Pricing Committee of the Board of Directors, and that if the Pricing Committee did not specify an amount for any year, such amount would be zero for such year. The Pricing Committee has not specified any increase in the authorization since that time. The Pricing Committee also was authorized to decrease the cumulative amount of the authorization at any time, but has not taken any action to do so at this time. As of December 31, 2019, the total cumulative amount of Common Shares authorized to be purchased is 5,311,000. The authorization provides that share repurchases will be made pursuant to open market purchases, block purchases, private purchases, or otherwise, depending on market prices and other conditions. This authorization does not have an expiration date.

Pursuant to stock-based compensation plans, U.S. Cellular reissued the following Treasury Shares:

Year Ended December 31,	**2019**	2018	2017
Treasury Shares Reissued	**432,000**	1,181,000	325,000

Tax-Deferred Savings Plan

At December 31, 2019, U.S. Cellular has reserved 67,000 Common Shares for issuance under the TDS Tax-Deferred Savings Plan, a qualified profit-sharing plan pursuant to Sections 401(a) and 401(k) of the Internal Revenue Code. Participating employees have the option of investing their contributions in a U.S. Cellular Common Share fund, a TDS Common Share fund or certain unaffiliated funds.

Note 17 Stock-Based Compensation

U.S. Cellular has established the following stock-based compensation plans: Long-Term Incentive Plans and a Non-Employee Director compensation plan.

Under the U.S. Cellular Long-Term Incentive Plans, U.S. Cellular may grant fixed and performance based incentive and non-qualified stock options, restricted stock, restricted stock units, and deferred compensation stock unit awards to key employees. At December 31, 2019, the only types of awards outstanding are fixed non-qualified stock option awards, restricted stock unit awards, performance share awards and deferred compensation stock unit awards.

Under the Non-Employee Director compensation plan, U.S. Cellular may grant Common Shares to members of the Board of Directors who are not employees of U.S. Cellular or TDS.

At December 31, 2019, U.S. Cellular had reserved 12,867,000 Common Shares for equity awards granted and to be granted under the Long-Term Incentive Plans and 123,000 Common Shares for issuance under the Non-Employee Director compensation plan.

U.S. Cellular uses treasury stock to satisfy requirements for Common Shares issued pursuant to its various stock-based compensation plans.

Long-Term Incentive Plans – Stock Options

Stock options granted to key employees are exercisable over a specified period not in excess of ten years. Stock options generally vest over a period of three years from the date of grant. Stock options outstanding at December 31, 2019, expire between 2020 and 2026. However, vested stock options typically expire 30 days after the effective date of an employee's termination of employment for reasons other than retirement. Employees who leave at the age of retirement have 90 days (or one year if they satisfy certain requirements) within which to exercise their vested stock options. The exercise price of options equals the market value of U.S. Cellular Common Shares on the date of grant.

U.S. Cellular did not grant stock option awards in 2019, 2018 or 2017.

A summary of U.S. Cellular stock options outstanding (total and portion exercisable) and changes during 2019 is presented in the table below:

Common Share Options	Number of Options	Weighted Average Exercise Price	Aggregate Intrinsic Value (in millions)	Weighted Average Remaining Contractual Life (in years)
Outstanding at December 31, 2018	806,000	$ 43.10		
(420,000 exercisable)		$ 42.39		
Exercised	(339,000)	$ 44.27		
Expired	(7,000)	$ 45.87		
Outstanding at December 31, 2019	460,000	$ 42.20	$ —	4.9
(460,000 exercisable)		$ 42.20	$ —	4.9

The aggregate intrinsic value of U.S. Cellular stock options exercised in 2019, 2018 and 2017 was $3 million, $19 million and $1 million, respectively. The aggregate intrinsic value at December 31, 2019, presented in the table above represents the total pre-tax intrinsic value (the difference between U.S. Cellular's closing stock price and the exercise price multiplied by the number of in-the-money options) that would have been received by option holders had all options been exercised on December 31, 2019.

Long-Term Incentive Plans – Restricted Stock Units

Restricted stock unit awards granted to key employees generally vest after three years. The restricted stock unit awards currently outstanding were granted in 2017, 2018 and 2019 and will vest in 2020, 2021 and 2022, respectively.

U.S. Cellular estimates the fair value of restricted stock units based on the closing market price of U.S. Cellular shares on the date of grant. The fair value is then recognized as compensation cost on a straight-line basis over the requisite service periods of the awards, which is generally the vesting period.

A summary of U.S. Cellular nonvested restricted stock units at December 31, 2019, and changes during the year then ended is presented in the table below:

Common Restricted Stock Units	Number		Weighted Average Grant Date Fair Value
Nonvested at December 31, 2018	1,569,000	$	39.74
Granted	478,000	$	46.81
Vested	(525,000)	$	42.99
Forfeited	(61,000)	$	39.38
Nonvested at December 31, 2019	1,461,000	$	40.90

The total fair value of restricted stock units that vested during 2019, 2018 and 2017 was $25 million, $16 million and $11 million, respectively. The weighted average grant date fair value per share of the restricted stock units granted in 2019, 2018 and 2017 was $46.81, $38.19 and $38.04, respectively.

Long-Term Incentive Plans – Performance Share Units

Beginning in 2017, U.S. Cellular granted performance share units to key employees. The performance share units vest after three years. Each recipient may be entitled to shares of U.S. Cellular common stock equal to 50% to 200% of a communicated target award depending on the achievement of predetermined performance-based operating targets over the performance period, which is a one-year period beginning on January 1 in the year of grant to December 31 in the year of grant. The remaining time through the end of the vesting period is considered the “time-based period”. Performance-based operating targets include Simple Free Cash Flow, Consolidated Total Operating Revenues and Postpaid Handset Voluntary Defections. Subject to vesting during the time-based period, the performance share unit award agreement provides that in no event shall the award be less than 50% of the target opportunity as of the grant date. The performance share units currently outstanding were granted in 2017, 2018 and 2019 and will vest in 2020, 2021 and 2022, respectively.

U.S. Cellular estimates the fair value of performance share units using U.S. Cellular’s closing stock price on the date of grant. An estimate of the number of performance share units expected to vest based upon achieving the performance-based operating targets is made and the aggregate fair value is expensed on a straight-line basis over the requisite service period. Each reporting period, during the performance period, the estimate of the number of performance share units expected to vest is reviewed and stock compensation expense is adjusted as appropriate to reflect the revised estimate of the aggregate fair value of the performance share units expected to vest.

A summary of U.S. Cellular’s nonvested performance share units and changes during 2019 is presented in the table below:

Common Performance Share Units	Number		Weighted Average Grant Date Fair Value
Nonvested at December 31, 2018	768,000	$	37.78
Granted	323,000	$	46.43
Vested	(5,000)	$	37.92
Change in units based on approved performance factors	188,000	$	38.81
Forfeited	(29,000)	$	38.55
Nonvested at December 31, 2019	1,245,000	$	40.16

The total fair value of performance share units vested during 2019 was less than $1 million. No performance share units vested during 2018 or 2017. The weighted average grant date fair value per share of the performance share units granted in 2019, 2018 and 2017 was $46.43, $38.81 and $36.92, respectively.

Long-Term Incentive Plans – Deferred Compensation Stock Units

Certain U.S. Cellular employees may elect to defer receipt of all or a portion of their annual bonuses and to receive a company matching contribution on the amount deferred. All bonus compensation that is deferred by employees electing to participate is immediately vested and is deemed to be invested in U.S. Cellular Common Share stock units. The amount of U.S. Cellular’s matching contribution depends on the portion of the annual bonus that is deferred. Participants receive a 25% match for amounts deferred up to 50% of their total annual bonus and a 33% match for amounts that exceed 50% of their total annual bonus; such matching contributions also are deemed to be invested in U.S. Cellular Common Share stock units and vest over three years.

The total fair value of deferred compensation stock units that vested during 2019, 2018 and 2017 was less than $1 million in each respective year. The weighted average grant date fair value per share of the deferred compensation stock units granted in 2018 and 2017 was $40.72 and $36.02, respectively. There were no deferred compensation stock units granted during 2019. As of December 31, 2019, there were 34,000 vested but unissued deferred compensation stock units valued at $1 million.

Compensation of Non-Employee Directors

U.S. Cellular issued 13,000, 18,000 and 15,000 Common Shares in 2019, 2018 and 2017, respectively, under its Non-Employee Director compensation plan.

Stock-Based Compensation Expense

The following table summarizes stock-based compensation expense recognized during 2019, 2018 and 2017:

Year Ended December 31,	2019	2018	2017
(Dollars in millions)			
Stock option awards	$ —	$ 2	$ 6
Restricted stock unit awards	22	21	19
Performance share unit awards	18	13	4
Awards under Non-Employee Director compensation plan	1	1	1
Total stock-based compensation expense, before income taxes	41	37	30
Income tax benefit	(10)	(9)	(11)
Total stock-based compensation expense, net of income taxes	$ 31	$ 28	$ 19

The following table provides a summary of the classification of stock-based compensation expense included in the Consolidated Statement of Operations for the years ended:

December 31,	2019	2018	2017
(Dollars in millions)			
Selling, general and administrative expense	$ 36	$ 33	$ 27
System operations expense	5	4	3
Total stock-based compensation expense	$ 41	$ 37	$ 30

At December 31, 2019, unrecognized compensation cost for all U.S. Cellular stock-based compensation awards was $29 million and is expected to be recognized over a weighted average period of 1.8 years.

U.S. Cellular's tax benefits realized from the exercise of stock options and the vesting of other awards totaled $7 million in 2019.

Note 18 Supplemental Cash Flow Disclosures

Following are supplemental cash flow disclosures regarding interest paid and income taxes paid.

Year Ended December 31,	2019	2018	2017
(Dollars in millions)			
Interest paid	$ 107	$ 113	$ 111
Income taxes paid, net of refunds received	78	90	55

Following are supplemental cash flow disclosures regarding transactions related to stock-based compensation awards. In certain situations, U.S. Cellular withholds shares that are issuable upon the exercise of stock options or the vesting of restricted shares to cover, and with a value equivalent to, the exercise price and/or the amount of taxes required to be withheld from the stock award holder at the time of the exercise or vesting. U.S. Cellular then pays the amount of the required tax withholdings to the taxing authorities in cash.

Year Ended December 31,	2019	2018	2017
(Dollars in millions)			
Common Shares withheld	452,000	1,550,000	145,000
Aggregate value of Common Shares withheld	$ 23	$ 73	$ 6
Cash receipts upon exercise of stock options	1	29	5
Cash disbursements for payment of taxes	(10)	(11)	(4)
Net cash receipts (disbursements) from exercise of stock options and vesting of other stock awards	$ (9)	$ 18	$ 1

Note 19 Certain Relationships and Related Transactions

The following persons are partners of Sidley Austin LLP, the principal law firm of U.S. Cellular and its subsidiaries: Walter C.D. Carlson, a director of U.S. Cellular, a director and non-executive Chairman of the Board of Directors of TDS and a trustee and beneficiary of a voting trust that controls TDS; and Stephen P. Fitzell, the General Counsel and/or an Assistant Secretary of TDS and U.S. Cellular and certain other subsidiaries of TDS. Walter C.D. Carlson does not provide legal services to TDS, U.S. Cellular or their subsidiaries. U.S. Cellular and its subsidiaries incurred legal costs from Sidley Austin LLP of $7 million, $5 million and $7 million in 2019, 2018 and 2017, respectively.

U.S. Cellular is billed for all services it receives from TDS, pursuant to the terms of various agreements between it and TDS. These billings are included in U.S. Cellular's Selling, general and administrative expenses. Some of these agreements were established at a time prior to U.S. Cellular's initial public offering when TDS owned more than 90% of U.S. Cellular's outstanding capital stock and may not reflect terms that would be obtainable from an unrelated third party through arms-length negotiations. Billings from TDS and certain of its subsidiaries to U.S. Cellular are based on expenses specifically identified to U.S. Cellular and on allocations of common expenses. Such allocations are based on the relationship of U.S. Cellular's assets, employees, investment in property, plant and equipment and expenses relative to all subsidiaries in the TDS consolidated group. Management believes the method TDS uses to allocate common expenses is reasonable and that all expenses and costs applicable to U.S. Cellular are reflected in its financial statements. Billings to U.S. Cellular from TDS totaled $82 million, $86 million and $85 million in 2019, 2018 and 2017, respectively.

The Audit Committee of the Board of Directors of U.S. Cellular is responsible for the review and evaluation of all related-party transactions as such term is defined by the rules of the New York Stock Exchange.

Reports of Management

Management's Responsibility for Financial Statements

Management of United States Cellular Corporation has the responsibility for preparing the accompanying consolidated financial statements and for their integrity and objectivity. The statements were prepared in accordance with accounting principles generally accepted in the United States of America and, in management's opinion, were fairly presented. The financial statements included amounts that were based on management's best estimates and judgments. Management also prepared the other information in the annual report and is responsible for its accuracy and consistency with the financial statements.

PricewaterhouseCoopers LLP, an independent registered public accounting firm, has audited these consolidated financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States) and has expressed herein its unqualified opinion on these financial statements.

/s/ Kenneth R. Meyers
Kenneth R. Meyers
President and Chief Executive Officer
(principal executive officer)

/s/ Douglas W. Chambers
Douglas W. Chambers
Senior Vice President, Chief Financial Officer and Treasurer
(principal financial officer)

/s/ Anita J. Kroll
Anita J. Kroll
Chief Accounting Officer
(principal accounting officer)

/s/ Jeffrey S. Hoersch
Jeffrey S. Hoersch
Vice President and Controller

Management's Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. U.S. Cellular'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 accounting principles generally accepted in the United States of America (GAAP). U.S. Cellular's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the issuer; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP, and that receipts and expenditures of the issuer are being made only in accordance with authorizations of management and, where required, the Board of Directors of the issuer; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the issuer's assets that could have a material effect on the interim or annual consolidated 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.

Under the supervision and with the participation of U.S. Cellular's management, including its principal executive officer and principal financial officer, U.S. Cellular conducted an evaluation of the effectiveness of its internal control over financial reporting as of December 31, 2019, based on the criteria established in the 2013 version of *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Management has concluded that U.S. Cellular maintained effective internal control over financial reporting as of December 31, 2019, based on criteria established in the 2013 version of *Internal Control — Integrated Framework* issued by the COSO.

The effectiveness of U.S. Cellular's internal control over financial reporting as of December 31, 2019, has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in the firm's report included herein.

/s/ Kenneth R. Meyers	/s/ Douglas W. Chambers
Kenneth R. Meyers	Douglas W. Chambers
President and Chief Executive Officer	Senior Vice President, Chief Financial Officer and Treasurer
(principal executive officer)	(principal financial officer)
/s/ Anita J. Kroll	/s/ Jeffrey S. Hoersch
Anita J. Kroll	Jeffrey S. Hoersch
Chief Accounting Officer	Vice President and Controller
(principal accounting officer)	

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of United States Cellular Corporation

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheet of United States Cellular Corporation and its subsidiaries ("the Company") as of December 31, 2019 and 2018, and the related consolidated statements of operations, changes in equity, and cash flows for each of the three years in the period ended December 31, 2019, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, based on our audits and the report of other auditors, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

We did not audit the financial statements of Los Angeles SMSA Limited Partnership, a 5.5% equity investment of the Company, which is reflected in the consolidated financial statements of the Company as an equity method investment of $265,200,000 and $262,100,000 as of December 31, 2019 and 2018, respectively, and income from equity investments of $77,800,000, $76,900,000 and $66,200,000 for each of the three years in the period ended December 31, 2019. The financial statements of Los Angeles SMSA Limited Partnership were audited by other auditors whose report thereon has been furnished to us, and our opinion on the financial statements expressed herein, insofar as it relates to the amounts included for Los Angeles SMSA Limited Partnership, is based solely on the report of the other auditors.

Changes in Accounting Principles

As discussed in Notes 10 and 2 to the consolidated financial statements, the Company changed the manner in which it accounts for leases in 2019 and the manner in which it accounts for revenue from contracts with customers in 2018.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, 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 Management's Report on Internal Control over Financial Reporting. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (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 audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated 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 consolidated 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 consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits and the report of other auditors provide a reasonable basis for our opinions.

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 (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) 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 (iii) 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.

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Intangible Asset Impairment Assessment - U.S. Cellular Licenses

As described in Notes 1 and 7 to the consolidated financial statements, the Company's consolidated licenses balance was $2,471 million as of December 31, 2019. Management performs its annual impairment assessment of licenses as of November 1 of each year or more frequently if there are events or circumstances that cause management to believe it is more likely than not that the carrying value of licenses exceeds fair value. For purposes of its impairment testing of licenses, management separated its FCC licenses into eight units of accounting, which consisted of one unit of accounting for developed operating market wireless spectrum licenses (built wireless spectrum licenses) and seven geographic non-operating market wireless spectrum licenses (unbuilt wireless spectrum licenses). As disclosed by management, a market approach was used to estimate the fair value of each pool of wireless spectrum licenses. The key assumption utilized in estimating the fair value of each pool of wireless spectrum licenses was the pricing multiples, which are units of value expressed in relation to the bandwidth and population covered by a wireless spectrum license.

The principal considerations for our determination that performing procedures relating to the intangible asset impairment assessment for the U.S. Cellular licenses is a critical audit matter are there was significant judgment by management when developing the estimate of fair value for each pool of licenses. This in turn led to a high degree of auditor judgment, effort and subjectivity in performing procedures and evaluating audit evidence related to management's significant assumption relating to the pricing multiples for the wireless spectrum license portfolio used in the fair value estimate. In addition, the audit effort involved the use of professionals with specialized skill and knowledge to assist in performing these procedures and evaluating the audit evidence obtained.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's annual intangible asset impairment assessment, including controls over the valuation of the Company's pool of licenses. These procedures also included, among others, testing management's process for developing the fair value estimate, evaluating the appropriateness of the market approach, testing the completeness, accuracy, and relevance of underlying data used in the market approach and evaluating the significant assumption used by management relating to the pricing multiples for the wireless spectrum license portfolio. Evaluating management's assumption related to the pricing multiples involved evaluating whether the assumption used by management was reasonable by considering (i) the current and past performance of each pool of licenses, (ii) consistency with external market and industry data, and (iii) whether the assumption was consistent with evidence obtained in other areas of the audit. Professionals with specialized skill and knowledge were used to assist in the evaluation of the Company's market approach.

/s/ PricewaterhouseCoopers LLP
Chicago, Illinois
February 25, 2020

We have served as the Company's auditor since 2002.

United States Cellular Corporation
Selected Consolidated Financial Data

Year Ended or at December 31,	2019[1]	2018[2]	2017	2016	2015
(Dollars and shares in millions, except per share amounts)					
Statement of Operations data					
Service revenues	**$ 3,035**	$ 2,978	$ 2,978	$ 3,081	$ 3,384
Equipment sales	**987**	989	912	909	647
Operating revenues	**4,022**	3,967	3,890	3,990	4,031
Loss on impairment of goodwill	**—**	—	370	—	—
(Gain) loss on sale of business and other exit costs, net	**(1)**	—	(1)	—	(114)
(Gain) loss on license sales and exchanges, net	**—**	(18)	(22)	(19)	(147)
Operating income (loss)	**112**	158	(304)	48	347
Equity in earnings of unconsolidated entities	**166**	159	137	140	140
Income (loss) before income taxes	**185**	215	(272)	82	404
Income tax expense (benefit)	**52**	51	(287)	33	157
Net income	**133**	164	15	49	247
Net income attributable to noncontrolling interests, net of tax	**6**	14	3	1	6
Net income attributable to U.S. Cellular shareholders	**$ 127**	$ 150	$ 12	$ 48	$ 241
Basic earnings per share attributable to U.S. Cellular shareholders	**$ 1.47**	$ 1.75	$ 0.14	$ 0.56	$ 2.86
Diluted earnings per share attributable to U.S. Cellular shareholders	**$ 1.44**	$ 1.72	$ 0.14	$ 0.56	$ 2.84
Balance Sheet data					
Total assets	**$ 8,164**	$ 7,274	$ 6,841	$ 7,110	$ 7,060
Net long-term debt, excluding current portion	**1,502**	1,605	1,622	1,618	1,629
Total U.S. Cellular shareholders' equity	**$ 4,197**	$ 4,057	$ 3,677	$ 3,634	$ 3,561

1 As of January 1, 2019, U.S. Cellular adopted ASU 842 using a modified retrospective method. Under this method, the new accounting standard is applied only to the most recent period presented. As a result, the period after this adoption date includes the impacts of ASU 842, but prior periods remain as previously reported. See Note 10 — Leases for additional information.

2 As of January 1, 2018, U.S. Cellular adopted the new revenue recognition accounting standard, ASC 606, using a modified retrospective approach. Under this method, the new accounting standard is applied only to the most recent period presented. As a result, periods after this adoption date include the impacts of ASC 606, but prior periods remain as previously reported.

United States Cellular Corporation
Consolidated Quarterly Information (Unaudited)

2019	Quarter Ended March 31	Quarter Ended June 30	Quarter Ended September 30	Quarter Ended December 31
(Dollars in millions, except per share amounts)				
Operating revenues	$ 966	$ 973	$ 1,031	$ 1,052
(Gain) loss on asset disposals, net	2	5	5	6
(Gain) loss on sale of business and other exit costs, net	(2)	—	—	—
(Gain) loss on license sales and exchanges, net	(2)	—	2	—
Operating income (loss)	64	30	20	(3)
Income tax expense (benefit)	27	14	15	(3)
Net income	58	32	24	18
Net income attributable to U.S. Cellular shareholders	$ 54	$ 31	$ 23	$ 18
Basic earnings per share attributable to U.S. Cellular shareholders	$ 0.63	$ 0.36	$ 0.27	$ 0.21
Diluted earnings per share attributable to U.S. Cellular shareholders	$ 0.62	$ 0.35	$ 0.27	$ 0.20

2018	Quarter Ended March 31	Quarter Ended June 30	Quarter Ended September 30	Quarter Ended December 31
(Dollars in millions, except per share amounts)				
Operating revenues	$ 942	$ 974	$ 1,001	$ 1,051
(Gain) loss on asset disposals, net	1	1	3	5
(Gain) loss on license sales and exchanges, net	(7)	(11)	—	—
Operating income	65	56	34	3
Income tax expense (benefit)	22	18	14	(4)
Net income	55	52	37	21
Net income attributable to U.S. Cellular shareholders	$ 45	$ 49	$ 36	$ 21
Basic earnings per share attributable to U.S. Cellular shareholders	$ 0.52	$ 0.57	$ 0.42	$ 0.24
Diluted earnings per share attributable to U.S. Cellular shareholders	$ 0.52	$ 0.56	$ 0.41	$ 0.23

Due to rounding, the sum of quarterly results may not equal the total for the year.

United States Cellular Corporation
Shareholder Information

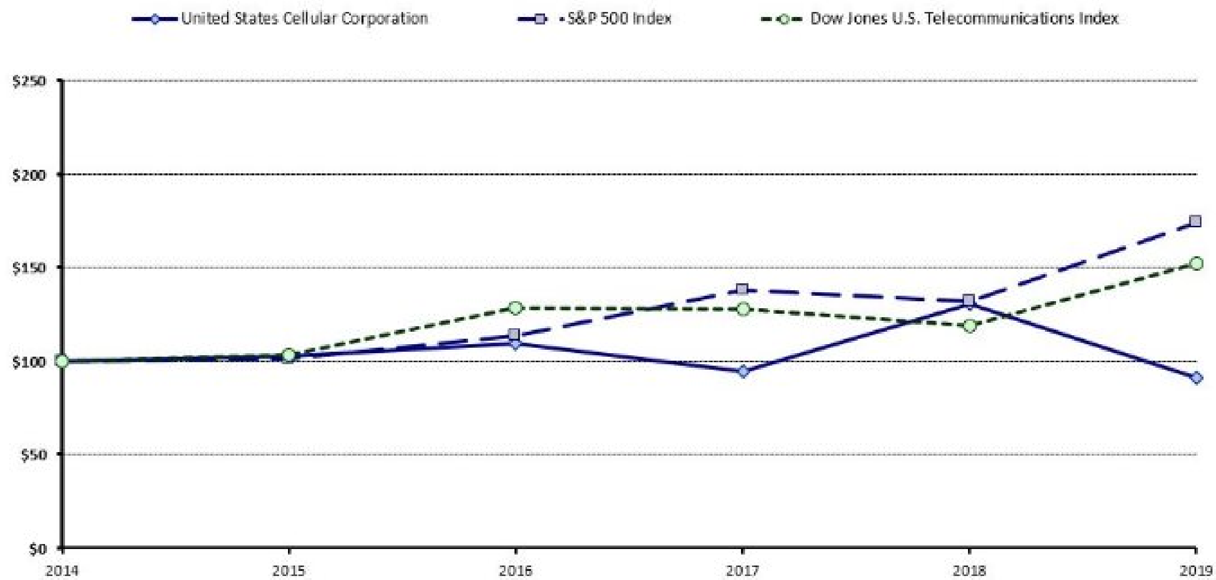
Stock and Dividend Information

U.S. Cellular's Common Shares are listed on the New York Stock Exchange under the symbol "USM." As of January 31, 2020, the last trading day of the month, U.S. Cellular's Common Shares were held by 228 record owners. All of the Series A Common Shares were held by TDS. No public trading market exists for the Series A Common Shares. The Series A Common Shares are convertible on a share-for-share basis into Common Shares.

U.S. Cellular has not paid any cash dividends in recent periods and currently intends to retain all earnings for use in U.S. Cellular's business.

Stock Performance Graph

The following chart provides a comparison of U.S. Cellular's cumulative total return to shareholders during the previous five years to the returns of the Standard & Poor's 500 Composite Stock Price Index and the Dow Jones U.S. Telecommunications Index.



Note: Cumulative total return assumes reinvestment of dividends.

	2014	2015	2016	2017	2018	2019
U.S. Cellular (NYSE: USM)	$ 100	$ 102.46	$ 109.77	$ 94.48	$ 130.48	$ 90.96
S&P 500 Index	100	101.38	113.51	138.29	132.23	173.86
Dow Jones U.S. Telecommunications Index	100	103.52	128.32	127.96	119.35	152.63

The comparison above assumes $100.00 invested at the close of trading on the last trading day preceding the first day of 2014, in U.S. Cellular Common Shares, S&P 500 Index and the Dow Jones U.S. Telecommunications Index.

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Investor relations

U.S. Cellular’s annual report, SEC filings and news releases are available to investors, securities analysts and other members of the investment community. These reports are provided, without charge, upon request to our Investor Relations department at the address below. Investors may also access these and other reports through the Investor Relations portion of the U.S. Cellular website (*www.uscellular.com*).

Questions regarding lost, stolen or destroyed certificates, consolidation of accounts, transferring of shares and name or address changes should be directed to:

Julie Mathews, IRC, Director — Investor Relations
Telephone and Data Systems, Inc.
30 North LaSalle Street, Suite 4000
Chicago, IL 60602
312.592.5341
julie.mathews@tdsinc.com

General inquiries by investors, securities analysts and other members of the investment community should be directed to:

Jane W. McCahon, Senior Vice President — Corporate Relations and Corporate Secretary
Telephone and Data Systems, Inc.
30 North LaSalle Street, Suite 4000
Chicago, IL 60602
312.592.5379
jane.mccahon@tdsinc.com

Directors and executive officers

See “Election of Directors” and “Executive Officers” sections of the Proxy Statement issued in 2020 for the 2020 Annual Meeting.

Principal counsel

Sidley Austin LLP, Chicago, Illinois

Transfer agent

Computershare Trust Company, N.A.
462 South 4th Street, Suite 1600
Louisville, KY 40202
312.360.5326

Independent registered public accounting firm

PricewaterhouseCoopers LLP

Visit U.S. Cellular's website at *www.uscellular.com*

Exhibit 21

UNITED STATES CELLULAR CORPORATION
SUBSIDIARY COMPANIES
December 31, 2019

SUBSIDIARY COMPANIES	STATE OF ORGANIZATION
BANGOR CELLULAR TELEPHONE, L.P.	DELAWARE
CALIFORNIA RURAL SERVICE AREA #1, INC.	CALIFORNIA
CEDAR RAPIDS CELLULAR TELEPHONE, L.P.	DELAWARE
CELLVEST, INC.	DELAWARE
CENTRAL CELLULAR TELEPHONES, LTD.	ILLINOIS
CHAMPLAIN CELLULAR, INC.	NEW YORK
COMMUNITY CELLULAR TELEPHONE COMPANY	TEXAS
CROWN POINT CELLULAR, INC.	NEW YORK
DUBUQUE CELLULAR TELEPHONE, L.P.	DELAWARE
HARDY CELLULAR TELEPHONE COMPANY	DELAWARE
INDIANA RSA # 5, INC.	INDIANA
INDIANA RSA NO. 4 LIMITED PARTNERSHIP	INDIANA
INDIANA RSA NO. 5 LIMITED PARTNERSHIP	INDIANA
IOWA RSA # 3, INC.	DELAWARE
IOWA RSA # 9, INC.	DELAWARE
IOWA RSA # 12, INC.	DELAWARE
JACKSONVILLE CELLULAR PARTNERSHIP	NORTH CAROLINA
JACKSONVILLE CELLULAR TELEPHONE COMPANY	NORTH CAROLINA
KANSAS #15 LIMITED PARTNERSHIP	DELAWARE
KENOSHA CELLULAR TELEPHONE, L.P.	DELAWARE
LAB465, LLC	ILLINOIS
MADISON CELLULAR TELEPHONE COMPANY	WISCONSIN
MAINE RSA # 1, INC.	MAINE
MAINE RSA # 4, INC.	MAINE
MCDANIEL CELLULAR TELEPHONE COMPANY	DELAWARE
MINNESOTA INVCO OF RSA # 7, INC.	DELAWARE
NEWPORT CELLULAR, INC.	NEW YORK
NH #1 RURAL CELLULAR, INC.	NEW HAMPSHIRE
OREGON RSA #2, INC.	OREGON
PCS WISCONSIN, LLC	WISCONSIN
RACINE CELLULAR TELEPHONE COMPANY	WISCONSIN
TENNESSEE NO. 3, LIMITED PARTNERSHIP	TENNESSEE
TEXAHOMA CELLULAR LIMITED PARTNERSHIP	TEXAS
TEXAS INVCO OF RSA # 6, INC.	DELAWARE
TOWNSHIP CELLULAR TELEPHONE, INC.	DELAWARE
UNITED STATES CELLULAR INVESTMENT CO. OF OKLAHOMA CITY, LLC.	OKLAHOMA
UNITED STATES CELLULAR INVESTMENT COMPANY, LLC	DELAWARE
UNITED STATES CELLULAR INVESTMENT CORPORATION OF LOS ANGELES	INDIANA
UNITED STATES CELLULAR OPERATING COMPANY LLC	DELAWARE
UNITED STATES CELLULAR OPERATING COMPANY OF BANGOR	MAINE
UNITED STATES CELLULAR OPERATING COMPANY OF CEDAR RAPIDS	DELAWARE
UNITED STATES CELLULAR OPERATING COMPANY OF CHICAGO, LLC	DELAWARE
UNITED STATES CELLULAR OPERATING COMPANY OF DUBUQUE	IOWA
UNITED STATES CELLULAR OPERATING COMPANY OF KNOXVILLE	TENNESSEE
UNITED STATES CELLULAR OPERATING COMPANY OF MEDFORD	OREGON
UNITED STATES CELLULAR OPERATING COMPANY OF YAKIMA	WASHINGTON
UNITED STATES CELLULAR TELEPHONE COMPANY (GREATER KNOXVILLE), L.P.	TENNESSEE

USCC DISTRIBUTION CO., LLC	DELAWARE
USCC EIP LLC	DELAWARE
USCC FINANCIAL L.L.C.	ILLINOIS
USCC FIRST RESPONDER, INC.	DELAWARE
USCC MASTER NOTE TRUST	DELAWARE
USCC PURCHASE, LLC	DELAWARE
USCC RECEIVABLES FUNDING LLC	DELAWARE
USCC SERVICES, LLC	DELAWARE
USCC WIRELESS INVESTMENT, INC.	DELAWARE
USCCI CORPORATION	DELAWARE
USCIC OF FRESNO	CALIFORNIA
USCOC NEBRASKA/KANSAS, INC.	DELAWARE
USCOC NEBRASKA/KANSAS, LLC	DELAWARE
USCOC OF CENTRAL ILLINOIS, LLC	ILLINOIS
USCOC OF CHICAGO REAL ESTATE HOLDINGS, LLC	DELAWARE
USCOC OF CUMBERLAND, LLC	DELAWARE
USCOC OF GREATER IOWA, LLC	DELAWARE
USCOC OF GREATER MISSOURI, LLC	DELAWARE
USCOC OF GREATER NORTH CAROLINA, LLC	DELAWARE
USCOC OF GREATER OKLAHOMA, LLC	OKLAHOMA
USCOC OF JACKSONVILLE, LLC	DELAWARE
USCOC OF LACROSSE, LLC	WISCONSIN
USCOC OF OREGON RSA # 5, INC.	DELAWARE
USCOC OF PENNSYLVANIA RSA NO. 10-B2, LLC	DELAWARE
USCOC OF RICHLAND, INC.	WASHINGTON
USCOC OF SOUTH CAROLINA RSA # 4, INC.	SOUTH CAROLINA
USCOC OF TEXAHOMA, INC.	TEXAS
USCOC OF VIRGINIA RSA # 3, INC.	VIRGINIA
USCOC OF WASHINGTON-4, INC.	DELAWARE
VERMONT RSA NO. 2-B2, INC.	DELAWARE
WASHINGTON RSA # 5, INC.	WASHINGTON
WESTELCOM CELLULAR, INC.	NEW YORK
WESTERN SUB-RSA LIMITED PARTNERSHIP	DELAWARE
YAKIMA MSA LIMITED PARTNERSHIP	DELAWARE

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (No. 333-229787) and Form S-8 (Nos. 333-42366, 333-105675, 333-161119, 333-188966, 333-190331 and 333-211485) of United States Cellular Corporation of our report dated February 25, 2020, relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in the 2019 Annual Report to Shareholders, which is incorporated by reference in this Annual Report on Form 10-K.

/s/ PricewaterhouseCoopers LLP
Chicago, Illinois
February 25, 2020

Exhibit 23.2

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the following Registration Statements of United States Cellular Corporation:

(1) Registration Statement (Form S-3 No. 333-229787),
(2) Registration Statement (Form S-8 No. 333-42366),
(3) Registration Statement (Form S-8 No. 333-105675),
(4) Registration Statement (Form S-8 No. 333-161119),
(5) Registration Statement (Form S-8 No. 333-188966),
(6) Registration Statement (Form S-8 No. 333-190331), and
(7) Registration Statement (Form S-8 No. 333-211485);

of our report dated February 25, 2020, with respect to the financial statements of Los Angeles SMSA Limited Partnership included in this Annual Report (Form 10-K) of United States Cellular Corporation for the year ended December 31, 2019.

/s/ Ernst & Young LLP

Orlando, Florida
February 25, 2020

Exhibit 31.1

Certification of principal executive officer

I, Kenneth R. Meyers, certify that:

1. I have reviewed this annual report on Form 10-K of United States Cellular Corporation;

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 25, 2020

/s/ Kenneth R. Meyers

Kenneth R. Meyers
President and Chief Executive Officer
(principal executive officer)

Exhibit 31.2

Certification of principal financial officer

I, Douglas W. Chambers, certify that:

1. I have reviewed this annual report on Form 10-K of United States Cellular Corporation;

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 25, 2020

/s/ Douglas W. Chambers

Douglas W. Chambers
Senior Vice President, Chief Financial Officer and Treasurer
(principal financial officer)

Exhibit 32.1

Certification Pursuant to Section 1350 of Chapter 63
of Title 18 of the United States Code

I, Kenneth R. Meyers, the principal executive officer of United States Cellular Corporation, certify that (i) the annual report on Form 10-K for the year ended December 31, 2019, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and (ii) the information contained in the Form 10-K fairly presents, in all material respects, the financial condition and results of operations of United States Cellular Corporation.

/s/ Kenneth R. Meyers

Kenneth R. Meyers

February 25, 2020

A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 has been provided to United States Cellular Corporation and will be retained by United States Cellular Corporation and furnished to the Securities and Exchange Commission or its staff upon request.

Exhibit 32.2

Certification Pursuant to Section 1350 of Chapter 63
of Title 18 of the United States Code

I, Douglas W. Chambers, the principal financial officer of United States Cellular Corporation, certify that (i) the annual report on Form 10-K for the year ended December 31, 2019, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and (ii) the information contained in the Form 10-K fairly presents, in all material respects, the financial condition and results of operations of United States Cellular Corporation.

/s/ Douglas W. Chambers

Douglas W. Chambers
February 25, 2020

A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 has been provided to United States Cellular Corporation and will be retained by United States Cellular Corporation and furnished to the Securities and Exchange Commission or its staff upon request.