



The Status of Local Telephone Competition in South Carolina

2016 Annual Report

South Carolina
Office of Regulatory Staff



**The Status of Local Telephone Competition in South Carolina
*2016 Annual Report***

South Carolina
Office of Regulatory Staff
2017

Table of Contents

Introduction	1
Notable Telecommunications Events of 2016	2
Local Telephone Competition	3
Incumbent Local Exchange Carriers	5
Competitive Local Exchange Carriers	6
VoIP Providers	6
Alternative Regulation	7
Lifeline – Eligible Telecommunications Carriers	7
Wireless Carriers	8
Broadband Deployment	11
Consumer Services	13
Tables	
Table 1: <i>Alternative Regulation: ILECs</i>	14

Acronyms

CDC	Centers for Disease Control and Prevention
CLEC	Competitive Local Exchange Company
DOR	South Carolina Department of Revenue
ETC	Eligible Telecommunications Carrier
FCC	Federal Communications Commission
ILEC	Incumbent Local Exchange Company
IP	Internet Protocol
ORS	South Carolina Office of Regulatory Staff
PSC	South Carolina Public Service Commission
SC USF	South Carolina Universal Service Fund
TRS	Telecommunications Relay Service
VoIP	Voice over Internet Protocol



OVERVIEW

- Status of competition in the local telephone exchange market
- Effects of changes that occurred in 2016
- Growth of broadband and wireless services
- New or changed state legislation
- Important decisions by the PSC
- Consumer complaints that the ORS receives and resolves
- New industry trends

Introduction

The South Carolina Office of Regulatory Staff (ORS) is required to compile information and monitor the status of local telephone competition in the State on an annual basis.¹ This document reports the status of competition in the local telephone exchange market in South Carolina, notes the effects of changes that occurred in the local telecommunications marketplace in 2016, and monitors the growth of broadband and wireless services within the competitive local exchange market. Across the nation only two other states publish an annual report on local telephone competition, Florida and Oregon.

The report also addresses other notable developments related to the telecommunications industry, such as new or changed state legislation, important decisions by the South Carolina Public Service Commission (PSC or Commission), consumer complaints that the ORS receives and resolves, and new industry trends that may affect the delivery of and access to critical telecommunications services in South Carolina.

Much of the data that appears in this report was provided to the Federal Communications Commission (FCC) by companies operating in South Carolina and reported in the FCC Form 477. According to the FCC, data was submitted by 16 Incumbent Local Exchange Companies (ILECs) some with multiple operating entities (25 ILECs serve the state of South Carolina), 150 non-ILEC, Interconnected Voice over Internet Protocol (VoIP) providers, and 6 wireless carriers. The term Competitive Local Exchange Company (CLEC) no longer appears in FCC data reports.

¹ This report contains both data generated by the ORS and state data gathered by the FCC and posted on its website or published in reports.

Notable Telecommunications Events of 2016

The PSC initiated changes to the South Carolina Universal Service Fund (SC USF) early in the year, issuing Order No. 2016-22, in Docket No. 2015-290-C, requiring “wireless retail carriers operating in South Carolina... pursuant to S.C. Code Ann. Section 58-9-280(E)(2), to contribute to the SC USF in the same manner that other telecommunications service providers contribute.” This Order led to other changes in law and regulation as described below.

Act 181 – Entitled “State Telecom Equity in Funding Act,” effective 5/25/2016 implemented a number of changes to the SC USF itemized below:

- The Act merges the Interim Local Exchange Carrier Fund (ILF) into the SC USF and caps state high-cost support of the SC USF at approximately \$42 million, the level of disbursements to providers from the two funds combined during 2015.
- Persons and entities that sell prepaid wireless telecommunications service to consumers must collect a USF fee and remit the sum to the South Carolina Department of Revenue (DOR).
- The ORS is required to set the contribution amount for prepaid wireless sellers each year as a fixed per-transaction fee for each point-of-sale transaction.
- The 2017 per-transaction fee for prepaid wireless sellers has been set at \$0.50 per transaction and DOR will collect this fee through its Form ST-406. Sellers may retain a 3% administrative fee.
- As required by PSC Order No. 2016-22, wireless carriers are required to contribute to the SC USF and remit to DOR.
- The ORS has established each carrier’s (wireline and wireless) contribution amount, and the ORS or DOR will invoice carriers this amount on a monthly basis. The DOR is sending invoices to wireless carriers, and ORS is sending invoices to regulated/certificated wireline carriers.
- The DOR is required to transfer the collections, less an amount equal to DOR’s actual incremental increase in administrative cost, to the SC USF.

On October 19, 2016, in response to Order No. 2016-22 and Act 181, the Commission issued Order No. 2016-756 in Docket No. 1997-239-C establishing updated guidelines for administering the SC USF.

Continuing with changes to modernize the SC USF, the Commission issued Order No. 2016-837 in Docket No. 2016-267-C on December 15, 2016, ordering all interconnected VoIP service providers, “regardless of whether they hold a Certificate of Public Convenience and Necessity issued by the Commission,” to contribute to the SC USF based on their retail voice communications services. Interconnected VoIP service providers not currently contributing were directed to contribute on a prospective basis and to submit appropriate information to the SC USF Administrator (ORS) in the next reporting cycle. Based on the Order, VoIP service providers will begin reporting with the next SC USF Worksheet due August 1, 2017, and will begin SC USF contributions in January 2018.

Local Telephone Competition

FCC Form 477 is used by the FCC to collect subscribership information from providers of local telephone service -- ILECs, CLECs, mobile telephone providers, and interconnected VoIP service providers. Traditional wireline service is rapidly being replaced by VoIP and wireless or cellular technology.

The local telephone market is defined as the delivery of voice telephone service to residential and/or business customers over a wired or wireless communications path regardless of the technology used. This market includes traditional wired telephone service, VoIP service, and wireless or cellular telephone service. Each of these services allows two or more individuals to engage in a simultaneous speaking conversation, even though they are not all located in the same place, and are considered direct substitutes for each other. Local competition is measured by counting the number of access lines, telephone lines, or wireless handsets sold or controlled by each provider.

ILECs are the traditional local telephone companies that existed prior to the Federal Telecommunications Act of 1996. The term “local telephone service” is fast becoming obsolete as ILECs and CLECs are converting their services to VoIP technology, and wireless/cellular service continues to increase in dominance as the preferred personal communications device of most individuals.

The number of wired access lines as reported by the FCC in South Carolina peaked in 2002 and has gradually declined since that time. This trend may be attributed to the increasing number of households replacing their wireline telephone with a cell phone. This phenomenon has been studied extensively by the Centers for Disease Control and Prevention, National Center for Health Statistics (CDC), and the most recent data published by the CDC estimates that in South Carolina 52% of all households now exclusively use a wireless phone for communication, or they are “wireless-only.”² In households with children under age 18, representing younger families, the wireless-only percentage is nearly 64%.³

While VoIP service is gradually replacing traditional TDM-based telephone service, VoIP service is still delivered over a copper or fiber optic connection to the customer’s location. VoIP is further delineated as either interconnected or non-interconnected.⁴ Interconnected VoIP providers are required to contribute to the Federal Universal Service Fund (USF) and Federal Telecommunications Relay Service Fund (TRS).⁵ Some, though not all, interconnected VoIP providers are contributing to South Carolina’s USF and TRS funds as of the end of 2016. On the federal level, interconnected VOIP providers are generally being treated in a number of respects as traditional telecommunications carriers.

Based on South Carolina legislative and regulatory changes made during 2016, both cellular and VoIP providers are required to contribute to the South Carolina TRS Fund beginning on January 1, 2017. In addition, based on two 2016 Commission orders, wireless carriers began contributing to the SC USF on January 1, 2017, and non-certificated VoIP providers are required to begin contributing to the SC USF on January 1, 2018.



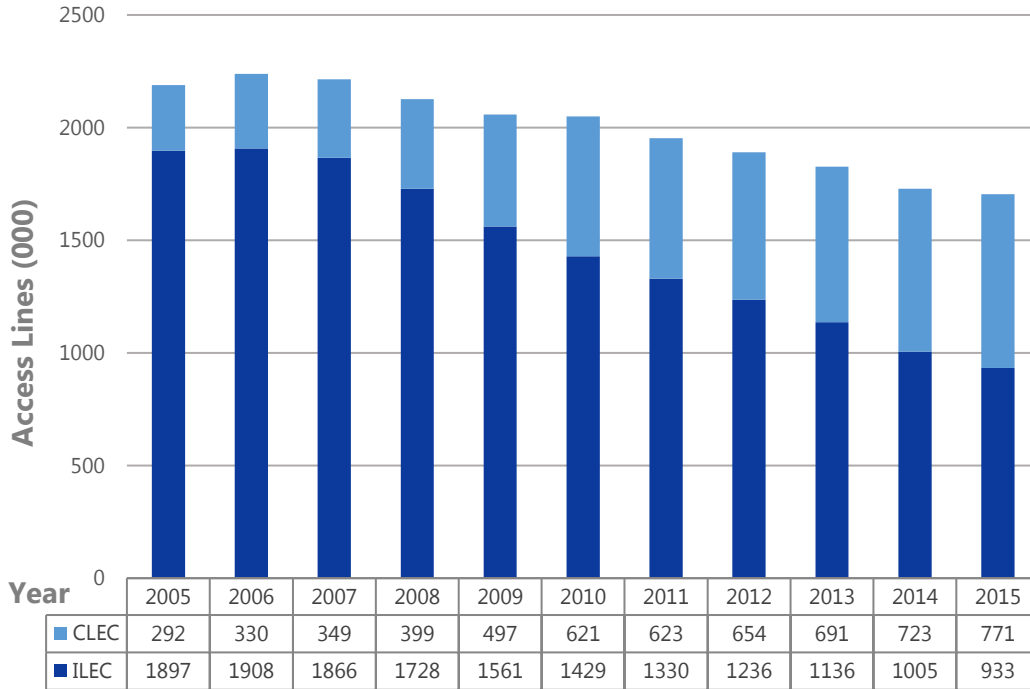
² NCHS, National Health Interview Survey, 2011 – 2015; U.S. Census Bureau, American Community Survey, 2010 – 2014; and infoUSA.com consumer database, 2011 – 2015. Table 1 Modeled estimates of the percent distribution of household telephone status for adults aged 18 and over, by state: United States, 2015
³ NCHS, National Health Interview Survey, 2011 – 2015; U.S. Census Bureau, American Community Survey, 2010 – 2014; and infoUSA.com consumer database, 2011 – 2015. Table 2 Modeled estimates of the percent distribution of household telephone status for children under age 18, by state: United States, 2015

⁴ See, 47 C.F.R. § 9.3 and 47 C.F.R. § 64.601(a).

⁵ See 47 C.F.R. § 64.604(c)(5)(iii)(A) for TRS and 47 C.F.R. § 54.706 for USF.

Chart 1 illustrates the gradual decline in total wired access lines occurring since 2005. Importantly, during that period ILEC lines declined by approximately 51% and have fallen by 58% since their peak in 2002.

Chart 1: Local Telephone Connections in South Carolina



SOURCE: Voice Telephone Services (fka - Local Telephone Competition Status) as of Dec. 31, 2015, Issued by Industry Analysis and Technology Division of the FCC Wireline Competition Bureau, November 2016

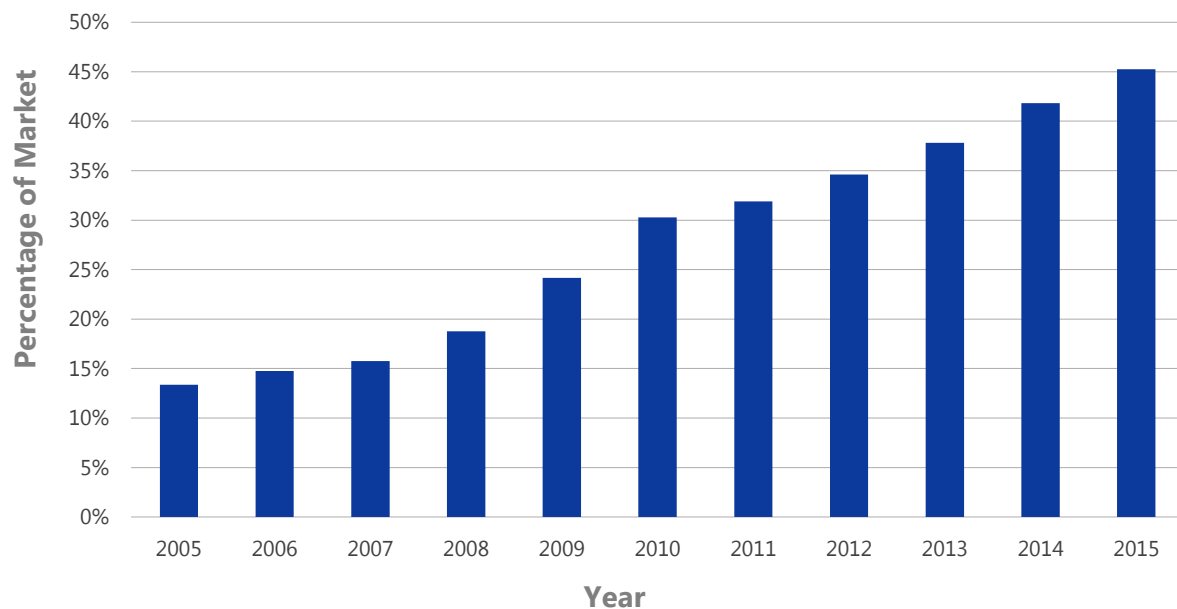
Incumbent Local Exchange Carriers

During 2015 the ILEC market share continued its steady decline in South Carolina, with market share dropping to 55%. In 2015, 24 of the State’s 25 ILECs were operating under the Alternative Regulation provisions of the Code, Section 58-9-576(B) or (C). One ILEC remained rate-of-return regulated in 2016 (*See Table 1, page 14*).

Competitive Local Exchange Carriers

Chart 2 illustrates the growth in market share that South Carolina’s 137 CLECs have experienced since 2005. Based on access lines reported to the FCC, CLEC market share grew again in 2015 as it increased from 42% to 45% of the local telephone market.

Chart 2: CLEC Market Share Growth in SC Since 2005



SOURCE: Voice Telephone Services (fka - Local Telephone Competition Status) as of Dec. 31, 2015 Issued by Industry Analysis and Technology Division of the FCC Wireline Competition Bureau, November 2016

VoIP Providers

As of December 2015, the FCC reported 150 VoIP providers serving subscribers in South Carolina. Some of these VoIP providers are CLECs, and some are uncertificated providers of VoIP telephone service. In 2015, approximately 72% of CLEC wireline customers purchased their telephone service from a VoIP provider.⁶

⁶ Voice Subscriptions: Status as of December 31, 2015, Industry Analysis and Technology Division, Wireline Competition Bureau, Released November, 2016; Supplemental Table 1 – South Carolina.

Alternative Regulation

Prior to the development of competition in the telecommunications market, each ILEC's rates were regulated by the Commission based on the telephone utility's rate of return. With the passage of the federal Telecommunications Act of 1996, and legislative changes in South Carolina, ILECs are regulated in a more flexible manner. Section 58-9-576(C) provides local exchange companies the ability to offer nearly all retail local service on a deregulated basis.

If an ILEC or a CLEC opts for alternative regulation pursuant to Section 58-9-576(C), then its retail service offerings are deregulated – thereby allowing them the ability to set price, terms, and conditions without Commission review. In addition, an ILEC choosing Act 7 deregulation will be subject to a three-year phase-down of any SC USF support it receives, but it will continue to contribute to the SC USF. The Commission retains authority over wholesale services like switched access and services sold to other carriers as well as limited authority over stand-alone basic residential lines.

Lifeline – Eligible Telecommunications Carriers

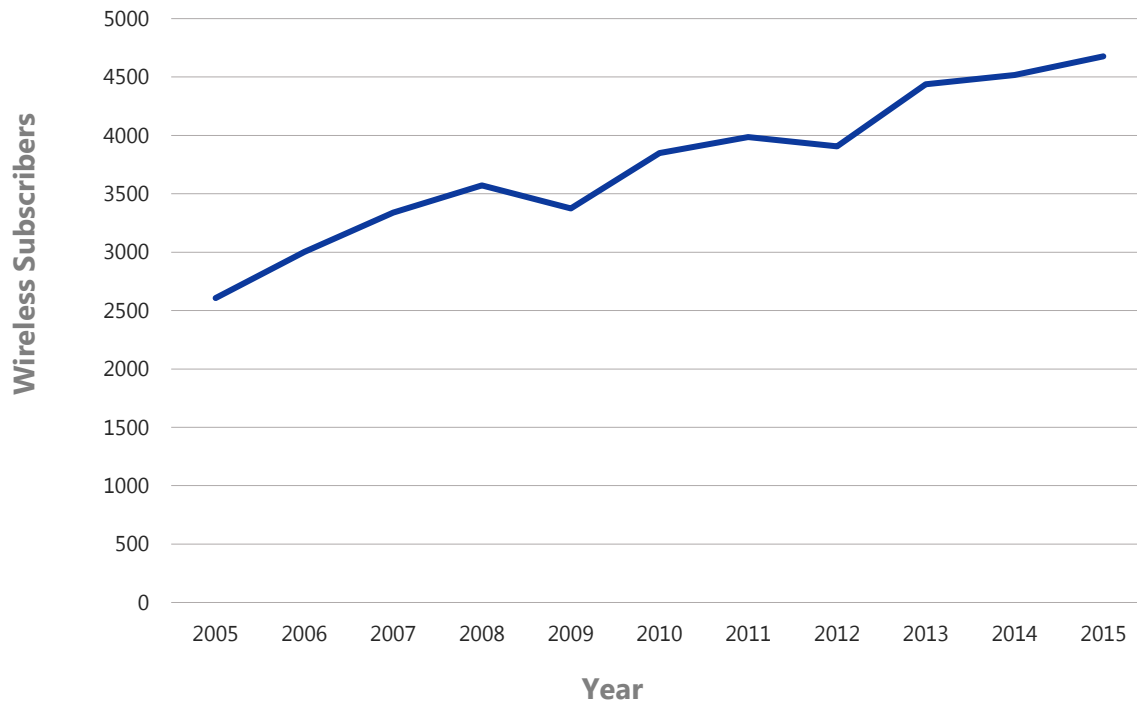
Beginning in 2007, South Carolina began accepting applications from carriers requesting permission to become Eligible Telecommunications Carriers (ETCs) offering Lifeline services to low-income households. In addition to the ILECs, South Carolina had 16 wireless Lifeline ETCs⁷ offering Lifeline at the end of 2016 that were receiving approximately \$23.5 million in total Lifeline support from the Federal Universal Service Fund during Calendar year 2016.

⁷ One South Carolina Lifeline ETC is authorized to provide both wireline and wireless lifeline service.

Wireless Carriers

In December 2015, six mobile wireless providers were operating in South Carolina.⁸ As reflected on [Chart 3](#), these wireless companies reported nearly 4.7 million wireless subscribers.

Chart 3: Total Wireless Telephone Subscribers in South Carolina

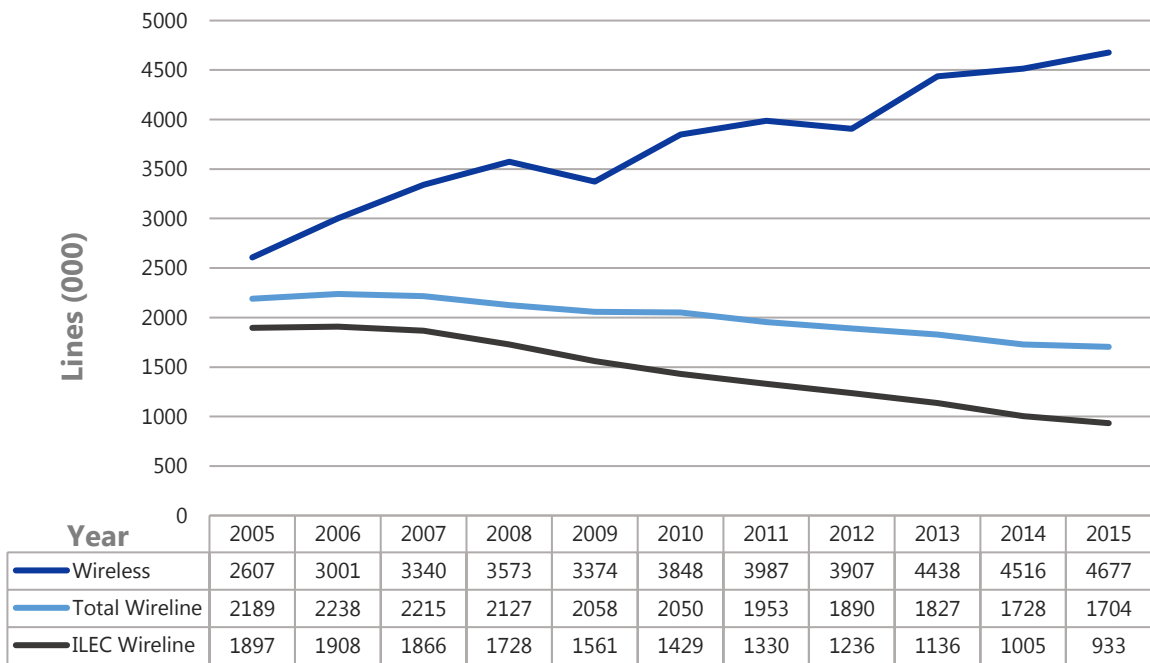


SOURCE: Voice Telephone Services (fka - Local Telephone Competition Status) as of Dec. 31, 2015 Issued by Industry Analysis and Technology Division of the FCC Wireline Competition Bureau, November, 2016

⁸ FCC Voice Telephone Services as of December 31, 2015.

Chart 4 provides a comparison of total wireless and wireline access lines in South Carolina from 2005 to 2015.

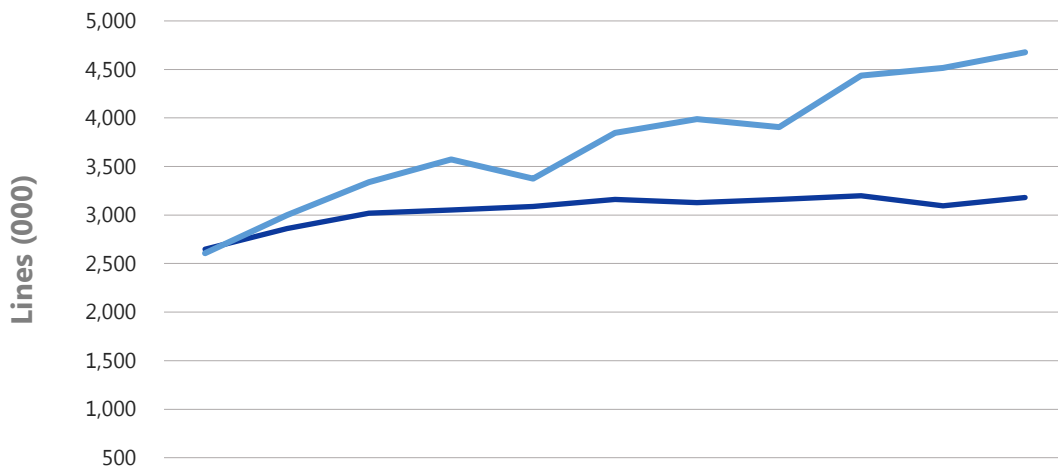
Chart 4: Wireline and Wireless Access Lines



SOURCE: Voice Telephone Services (fka - Local Telephone Competition Status) as of Dec. 31, 2015 Issued by Industry Analysis and Technology Division of the FCC Wireline Competition Bureau, November 2016

Chart 5 illustrates the ILEC and CLEC voice lines plus high-speed broadband connections (wireline combined) as compared with wireless connections.

Chart 5: Wireline Voice/Broadband and Wireless Access Lines



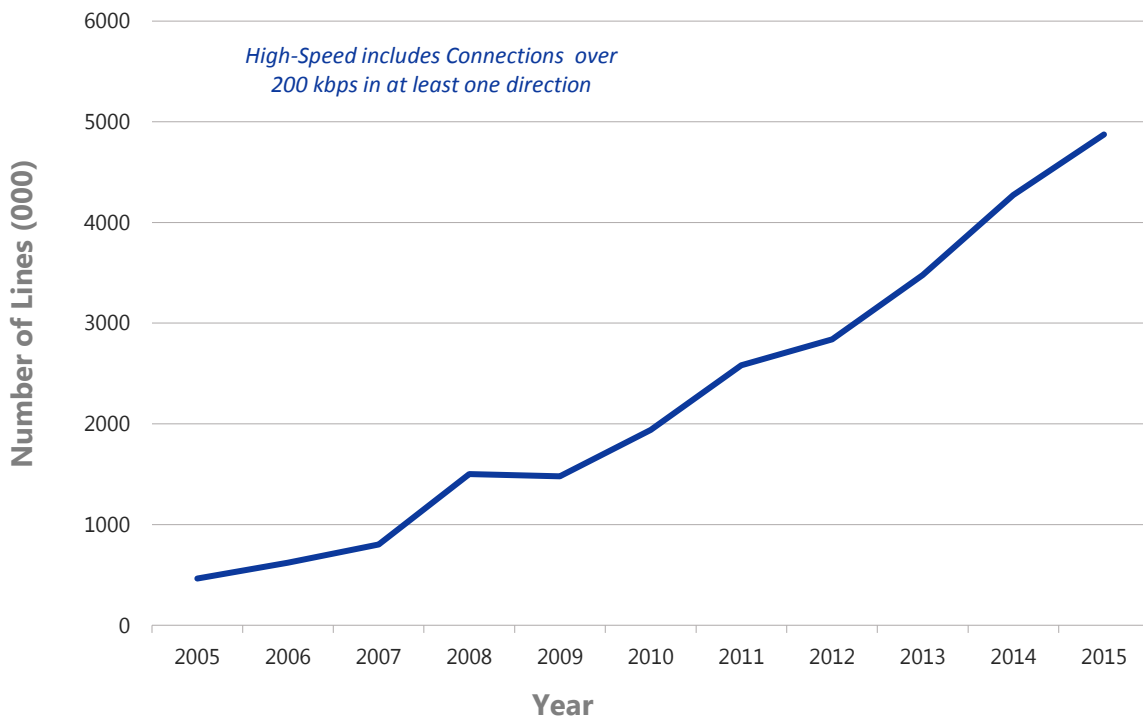
Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Wireline Combined	2,648	2,860	3,018	3,052	3,090	3,162	3,127	3,162	3,199	3,096	3,181
Wireless	2,607	3,001	3,340	3,573	3,374	3,848	3,987	3,907	4,438	4,516	4,677

SOURCE: Internet Access Services, Status as of Dec 31, 2015 Issued by Industry Analysis and Technology Division of the FCC Wireless Competition Bureau, November, 2016

Broadband Deployment

Broadband access has grown significantly in South Carolina. As illustrated in [Chart 6](#), the number of high-speed internet-access lines has increased from 25,229 in 1999 to nearly 4.9 million in 2015. In fact, overall broadband access has soared past expectations due to several factors such as industry technology advances, the popularity of wireless broadband, and the expanding role broadband is taking both in residential and business applications. According to FCC data, nearly 70% of the 4.9 million broadband connections in South Carolina are mobile wireless broadband.

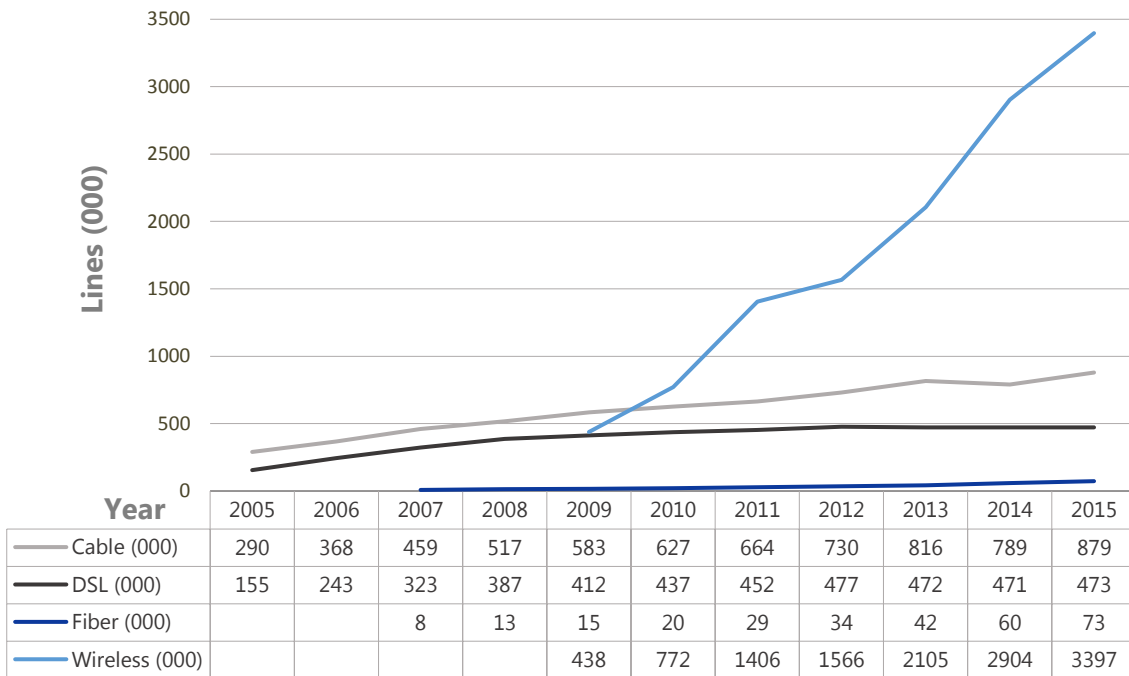
Chart 6: Total High-Speed Lines for Internet Access in South Carolina
Includes Mobile Wireless Broadband



SOURCE: Internet Access Services, Status as of Dec. 31, 2015 Issued by Industry Analysis and Technology Division of the FCC Wireline Competition Bureau, November 2016

Chart 7 shows the stunning growth of wireless broadband connections as compared to the other popular and growing broadband technologies. Approximately 3.4 million cell phone users in South Carolina have taken advantage of the availability of the smart phone and upgrades to the cellular networks of the major wireless carriers. Improvements in wireline networks have occurred as well, but at a slower pace.

Chart 7: High-Speed lines by Technology



SOURCE: Internet Access Services, Status as of Dec. 31, 2015 Industry Analysis and Technology Division of the FCC Wireline Competition Bureau, November, 2016

Consumer Services

The ORS tracks a wide range of consumer complaints related to regulated and non-regulated telecommunications services. **Chart 8** depicts a breakdown of complaint calls received by the ORS during 2016. Two of the largest telecommunications complaint areas relate to service quality and billing. Service quality complaints numbered 95 or 45% of telecommunications complaints, non-regulated issues were second numbering 62 or 29%, and billing issues were third numbering 21 or 10%.

Chart 8: Consumer Services Division Telecommunications Complaints by Type, Number & Percentage - 2016

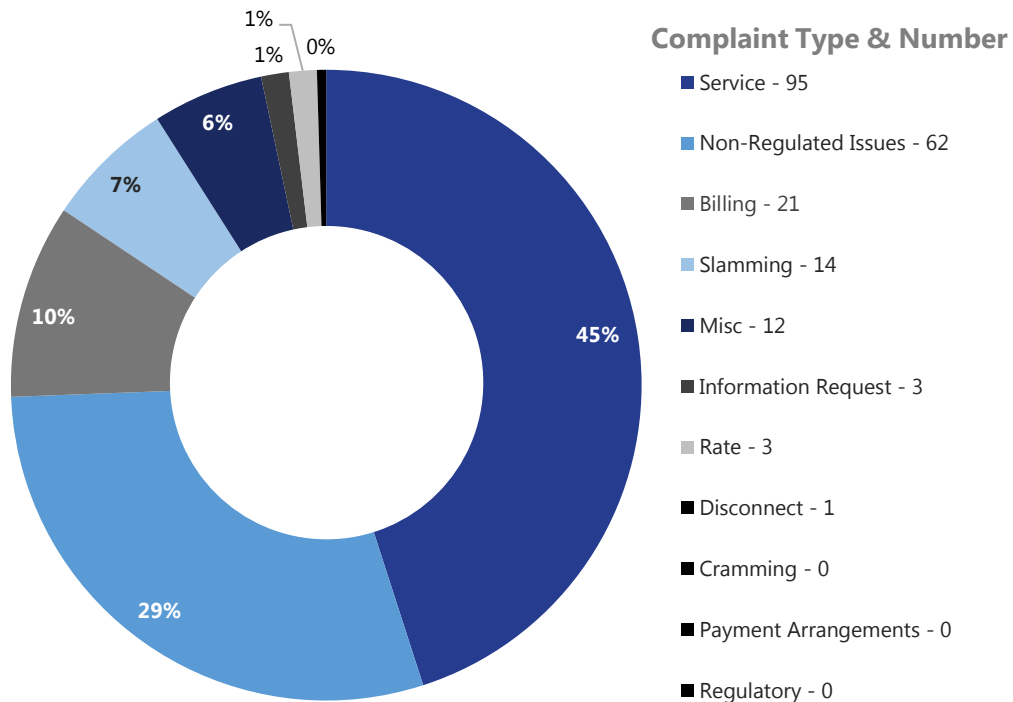


Table 1: Alternative Regulation: ILECs

Carrier	Alt. Reg. § 58-9-576(B)	Alt. Reg. § 58-9-576(C) Act 7	Rate of Return Regulation
United Telephone Company of Carolinas dba CenturyLink, fka Embarq, fka Sprint	29-Sep-97 ⁹		
BellSouth Telecommunications	13-Aug-99 ⁹	1-Oct.-09 ¹⁰	
Frontier fka Verizon South, Inc.	14-Oct-00 ⁹		
Windstream South Carolina	27-Sep-02 ⁹		
Horry Telephone Coop.	30-Jan-03 ⁹		
PBT Telecom	18-Feb-06 ⁹		
Home Telephone Co.	7-Apr-06 ⁹		
West Carolina Rural Tel. Coop.	16-Oct-06 ⁹		
Piedmont Rural Telephone Coop.	12-Jan-07 ⁹		
Lockhart Telephone Co.	9-Aug-07 ⁹		
Farmers Telephone Coop.	1-May-08 ⁹		
Bluffton Telephone Co.	4-Mar-05 ¹¹		
Hargray Telephone Co.	4-Mar-05 ¹¹		
McClellanville Telephone Co. (TDS)	30-May-05 ¹¹		
Norway Telephone Co. (TDS)	30-May-05 ¹¹		
St. Stephen Telephone Co. (TDS)	30-May-05 ¹¹		
Williston Telephone Co. (TDS)	30-May-05 ¹¹		
Fort Mill Telephone Co. dba Comporium	1-Aug-05 ¹¹		
Lancaster Telephone Co. dba Comporium	1-Aug-05 ¹¹		
Rock Hill Telephone Co. dba Comporium	1-Aug-05 ¹¹		
Chester Telephone Co.	9-Aug-07 ¹¹		
Ridgeway Telephone Co.	9-Aug-07 ¹¹		
Chesnee Telephone Co.	23-Aug-2014 ⁹		
Palmetto Rural Telephone Coop.	1-May-2014 ⁹		
Sandhill Telephone Coop.			X

⁹ Company requested Alternative Regulation based on interconnection agreement.

¹⁰ Company requested Alternative Regulation based on Section 58-9-576(C) which effectively deregulates retail service pricing.

¹¹ Company requested Alternative Regulation based on determination that at least two wireless providers have coverage generally available in the LEC's service area.