

Annual Report on Communications Markets in Illinois

Submitted to the Illinois General Assembly
Pursuant to Section 13-407 of the
Illinois Public Utilities Act



Illinois Commerce Commission

527 East Capitol Avenue
Springfield, Illinois 62701
www.icc.illinois.gov

October 26, 2016

STATE OF ILLINOIS



ILLINOIS COMMERCE COMMISSION

October 26, 2016

The Honorable Members of the Illinois General Assembly
State Capitol
Springfield, Illinois

Dear Members of the Illinois General Assembly:

Enclosed is the Illinois Commerce Commission's "Annual Report on Communications Markets in Illinois."

This report is submitted in compliance with Section 13-407 of the Illinois Public Utilities Act, which requires the Illinois Commerce Commission to monitor and analyze the status of competition in Illinois telecommunications markets, and present its findings to the General Assembly.

Sincerely,

A handwritten signature in black ink, appearing to read "Brien J. Sheahan".

Brien J. Sheahan
Chairman

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EXECUTIVE SUMMARY

This report presents summary statistics on competition in local telephone services and the deployment of broadband services in Illinois. It is the fifteenth such Report submitted to the Illinois General Assembly by the Illinois Commerce Commission pursuant to Section 13-407 of the Illinois PUA. The first such report was submitted to the General Assembly on October 23, 2002.

The statistics presented in this report are compiled from data reported to the Illinois Commerce Commission, the Federal Communications Commission, and various other governmental entities. The report provides a snapshot of competition in the areas of telephone and broadband services. The following are selected highlights from the facts and findings in this Report:

- 41 incumbent local exchange carriers (ILECs) and 121 competitive local exchange carriers (CLECs) reported providing wireline telephone service to Illinois customers as of December 31, 2015.
- CLECs, including fixed voice over Internet protocol (VoIP) providers, provided approximately 2.0 million (or 43%) of the roughly 4.5 million reported total Illinois wireline telephone lines in service at year-end 2015. The number of CLEC reported wireline telephone lines statewide decreased from approximately 2.2 million at year-end 2014 to approximately 2.0 million at year-end 2015.
- ILECs provided approximately 2.6 million (or 57%) of the roughly 4.5 million reported Illinois wireline telephone lines in service at year-end 2015. The number of ILEC reported wireline telephone lines decreased in Illinois from approximately 2.8 million at year-end 2014 to approximately 2.6 million at year-end 2015.
- Approximately 9 million Illinois retail wireline telephone lines were reported at year-end 2001. Approximately 4.5 million Illinois retail wireline telephone lines were reported at year-end 2015. Thus, reported Illinois retail wireline telephone lines decreased by approximately 4.5 million (or approximately 50%) between year-end 2001 and year-end 2015.
- Mobile-wireless subscribership increased during 2014. The number of wireless subscribers in Illinois as of December 2014 was approximately 13.2 million.
- Data collected by the Centers for Disease Control (CDC) indicate that in 2015 approximately 51% of the adult population in Illinois lived in households with only wireless service. In conjunction with the estimated percentage of wireline telephone lines provided by wireline CLECs (both reported and estimated unreported lines) and the percentage of households with no phone service, the CDC figures suggest that approximately 25% of Illinois residential customers

received wireline service from an ILEC in 2014 and that approximately 75% of Illinois residential customers did not take wireline service from an ILEC.

- Illinois providers served nearly 13.1 million Illinois broadband customers as of December 31, 2014.

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LIST OF ACRONYMS

ADSL – Asymmetric Digital Subscriber Line
BOC – Bell Operating Company
CDC – Centers for Disease Control
CLEC – Competitive Local Exchange Carrier
DSL – Digital Subscriber Line
DSLAM – Digital Subscriber Line Access Multiplexer
Gbps – Gigabits per Second
HFC – Hybrid Fiber-Coaxial
ILEC – Incumbent Local Exchange Carrier
ISP – Internet Service Provider
FCC – Federal Communications Commission
Kbps – Kilobits per Second
LATA – Local Access and Transport Area
LEC – Local Exchange Carrier
LERG – Local Exchange Routing Guide
Mbps – Megabits per Second
NTIA – National Telecommunications and Information Administration
PCI – Partnership for a Connected Illinois
PSTN – Public Switched Telephone Network
PUA – Public Utilities Act
UNE – Unbundled Network Element
UNE-L – Unbundled Network Element – Loop
UNE-P – Unbundled Network Element – Platform
VGE – Voice Grade Equivalent
VoIP – Voice over Internet Protocol

I. INTRODUCTION

Section 13-407 of the Illinois Public Utilities Act (PUA) requires that the Illinois Commerce Commission (Commission) monitor and analyze the status of competition in Illinois telecommunications markets, and to annually report its findings to the Illinois General Assembly.

This current Report, dated October 26, 2016, summarizes competitive developments in wireline and wireless telephone and broadband services, updated to reflect:

- the most recent available information reported to the Commission (as of December 31, 2015),
- the most recent data made available by the FCC (as of December 31, 2014) concerning high speed and wireless service provisioning,
- the most recent broadband deployment information made available in the National Broadband Map¹ (as of June 30, 2014) by the FCC and the National Telecommunications and Information Administration (NTIA).

The bulk of the wireline telephone data provided by Illinois carriers and compiled by Commission Staff is displayed in Appendix B of this report (Tables B1 through B3). Selected data from these tables are highlighted and displayed in several sections of the Report.²

¹ See <http://www.broadbandmap.gov/>.

² The bulk of the information provided herein reflects data reported by ILECs, CLECs, and Interconnected VoIP providers measuring provisioning as of December 31, 2015.

II. TELEPHONE SERVICES

A. Overview

Wireline telephone service, as that term is used in this report, refers to basic local voice service provided over wireline network facilities. This service enables the end-user to place and receive calls to and from any other user on the Public Switched Telephone Network (PSTN), but, as the name suggests, does so only through physical wires or other comparable technologies from a fixed location (e.g., the customer's premises). The information presented in this section of this report focuses on the local line (or loop) that connects end-users to the PSTN, enabling the provision of wireline telephone service.

Technologies used to provide wireline telephone service vary. Local exchange carriers (LECs) traditionally have provisioned wireline telephone service over a "twisted pair" of copper wires and electronics that enable the customer to make or receive a single phone call. Carriers increasingly provide wireline telephone service over alternative technologies, such as fiber optics and associated electronics, which allow multiple customers to make simultaneous phone calls over a single fiber-optic strand. To enable uniform reporting and analysis of wireline telephone service regardless of the technologies utilized, the information presented herein is reported by voice grade equivalent (VGE) lines. Carriers report the number of lines provided by measuring the number of simultaneous phone calls that their customers are able to make or receive. This uniformity ensures direct comparability for purposes of reporting and analysis.

Two general classes of LECs provide wireline telephone service in Illinois: incumbent local exchange carriers (ILECs) and competitive local exchange carriers (CLECs). An ILEC is a telecommunications carrier (including its successors, assigns, and affiliates) that historically has served as the exclusive provider of wireline local telephone service in a specific service territory. CLECs are competitive carriers authorized and certificated by the Commission to provide local telephone service in competition with ILECs. As used herein, CLECs also include fixed voice over Internet protocol (VoIP) providers that are registered with the Commission. Some telecommunications carriers operate as both an ILEC and CLEC.³

³ Such carriers were requested to report to the Commission information separately for ILEC and CLEC operational units. Because of mergers and acquisitions, some ILECs have affiliates that are certified as CLECs or registered as fixed VoIP providers and are providing lines within their incumbent local service areas. For purposes of this report all lines provided by an affiliate of an ILEC in that ILEC's service area have been treated as though provided by the ILEC. The approach adopted here with respect to the merged entities, to the extent feasible given the information supplied by the companies, minimizes the error of counting ILEC affiliates as competitors in the ILEC's local service area and of excluding competitive activity by ILEC affiliates outside the ILEC's local service area.

The Illinois PUA and the Federal Telecommunications Act of 1996 encourage and endorse the development of competition in local telecommunications services. Together, these provide a framework for competitors to enter local markets by three fundamental and distinct methods:

- Building complete telecommunications networks using their own facilities,
- Leasing a portion of the facilities needed to serve end-user customers from ILECs as unbundled network elements (UNEs),
- Purchasing telecommunications services from ILECs at discounted prices and reselling these services to customers.

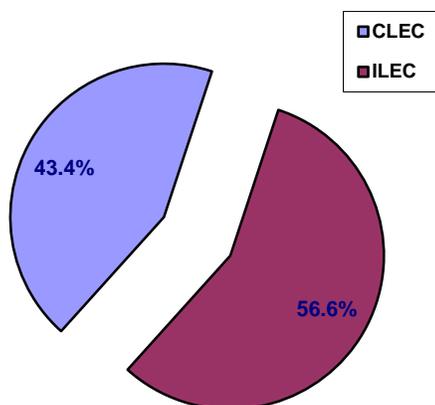
Over time, and as regulation and technology have changed, competitors have increasingly adopted additional methods of entry, including:

- Leasing all or a portion of the facilities needed to serve end-user customers from ILECs under commercial agreements,
- Leasing or purchasing telecommunications services from non-ILECs at discounted prices and reselling these services to customers,
- Providing telephone service over broadband connections and/or using Internet protocol facilities and software.

Regardless of the method utilized by a CLEC, significant cooperation and coordination between all carriers is crucial to the maintenance and proper functioning of the various interconnected communications networks. This remains true even where a CLEC has deployed a network utilizing 100% of its own facilities. Even under these circumstances, telephone traffic must be passed back and forth efficiently and reliably between the networks of all ILECs and all CLECs.

B. Statewide Competition In Retail Wireline Telephone Service in Illinois

Figure 1: ILEC and CLEC Retail Wireline Telephone Market Shares



As Figure 1 shows, at year-end 2015, reporting CLECs provided approximately 43% of all reported retail wireline telephone lines in Illinois. Approximately 4.5 million total retail wireline telephone lines were reported in Illinois. ILECs provided approximately 2.6 million lines (or 57%), while reporting CLECs provided approximately 2.0 million lines (or 43%). Table 1 displays these figures and comparable year-end figures for years 2001 through and including 2015.

Table 1: Retail Wireline Telephone Lines in Illinois

<i>Date</i>	<i>Total Lines</i>	<i>ILEC Lines</i>	<i>CLEC Lines</i>	<i>CLEC Share</i>
<i>Dec 2001</i>	9,036,493	7,628,679	1,407,814	16%
<i>Dec 2002</i>	8,727,943	7,029,967	1,697,976	19%
<i>Dec 2003</i>	8,327,835	6,549,268	1,778,567	21%
<i>Dec 2004</i>	8,103,503	6,262,826	1,840,677	23%
<i>Dec 2005</i>	7,805,958	6,462,064	1,343,894	17%
<i>Dec 2006</i>	7,221,713	6,108,281	1,113,432	15%
<i>Dec 2007</i>	7,061,103	5,684,221	1,376,882	20%
<i>Dec 2008</i>	6,691,734	5,228,376	1,463,358	22%
<i>Dec 2009</i>	6,278,499	4,810,584	1,467,915	23%
<i>Dec 2010</i>	6,091,400	4,307,415	1,783,985	29%
<i>Dec 2011</i>	5,645,938	3,852,215	1,793,723	32%
<i>Dec 2012</i>	5,337,103	3,460,976	1,876,127	35%
<i>Dec 2013</i>	5,047,575	3,092,942	1,954,633	39%
<i>Dec 2014</i>	5,023,177	2,835,215	2,187,962	44%
<i>Dec 2015</i>	4,530,736	2,564,165	1,966,571	43%

As Table 2 shows, 41 ILECs provided wireline telephone lines in Illinois in 2015.⁴ The four largest ILECs (AT&T, Frontier, Consolidated, and CenturyLink) provided approximately 97% of all ILEC retail wireline telephone lines, while the remaining 37 ILECs provided approximately 3% of the total ILEC lines in Illinois.

⁴ Fluctuation in ILEC counts over time is explained by changes in common control and certain reporting inconsistencies. Prior to 2004, four ILECs, C-R Telephone Company, El Paso Telephone Company, Odin Telephone Company, and Yates City Telephone Company, now under the control of Fairpoint Communications, were reported separately. Beginning in 2005, these entities were counted and reported as a single ILEC. Mid-Century Telephone Cooperative, Inc. subsequently replaced Yates City as the ILEC in the Yates City's ILEC service area. Its line counts are no longer included within the Fairpoint ILEC lines, but rather within the Mid-Century lines. Prior to 2004, two ILECs, Marseilles Telephone Company and Metamora Telephone Company, under the common control of MTCO Corporation were reported separately. Beginning in 2005, these entities were counted and reported as a single ILEC. Three mutual ILECs, Clarksville Mutual Telephone, Grandview Mutual Telephone, and Leonore Mutual Telephone, were not required pursuant to Section 13-407 of the Illinois PUA to and did not report line counts to the Commission for year-end 2010 through and including year-end 2015. Additionally, one ILEC, Grafton Telephone Company, failed to respond to the Commission's CDR in time for inclusion for year-end 2013. As of July 1, 2010, Frontier assumed control of ILEC properties formerly under the control of Verizon. One mutual ILEC, Clarksville Mutual Telephone, did not report line counts to the Commission for year-end 2008 and year-end 2009. It is included in ILEC carrier counts for 2008 and 2009. Year-end 2008 and year-end 2009 line counts for this entity were assumed to be the same as line counts reported by this entity for year-end 2005. Two mutual ILECs, Clarksville Mutual Telephone and Kinsman Mutual Telephone Company, did not report line counts to the Commission, but are included in ILEC carrier counts for 2006 and 2007. Year-end 2006 and 2007 line counts for these two entities were assumed to be the same as line counts reported by these entities for year-end 2005. Two ILECs, Bergen Telephone Company and Sharon Telephone Company, failed to respond to the Commission's CDR for year-end 2001.

One-hundred-twenty-one (121) CLECs reported providing retail wireline telephone service in Illinois in 2015.⁵ Of these 121 CLECs, the four largest (Comcast, Windstream, First Communications, and CenturyLink) accounted for approximately 71% of all reported CLEC retail wireline telephone lines, while the remaining 117 CLECs provided approximately 29% of all reported CLEC retail wireline telephone lines.

Table 2: Retail Wireline Telephone Providers in Illinois

<i>Date</i>	<i>No. of Retail wireline telephone Providers Reporting</i>	<i>No. of ILEC wireline telephone Providers Reporting</i>	<i>No. of CLEC wireline telephone Providers Reporting</i>
<i>Dec 2001</i>	82	47	35
<i>Dec 2002</i>	94	49	45
<i>Dec 2003</i>	102	49	53
<i>Dec 2004</i>	114	49	65
<i>Dec 2005</i>	114	45	69
<i>Dec 2006</i>	136	45	91
<i>Dec 2007</i>	125	45	80
<i>Dec 2008</i>	132	45	87
<i>Dec 2009</i>	129	45	84
<i>Dec 2010</i>	123	41	82
<i>Dec 2011</i>	117	41	76
<i>Dec 2012</i>	129	40	89
<i>Dec 2013</i>	128	40	88
<i>Dec 2014</i>	148	41	107
<i>Dec 2015</i>	162	41	121

C. Competition from Wireless and VoIP Providers

As Table 1 shows, the total reported retail wireline telephone lines fell from slightly over 9 million to approximately 4.5 million (nearly 50%) between year-end 2001 and year-end 2015. These reductions in total reported lines are consistent with other evidence that customers are substituting non-reported (and non-reporting) services for reported wireline telephone services. Two such non-reported (and non-reporting) services are: wireless mobile (or cellular) service and nomadic VoIP (Voice over Internet Protocol) service.

⁵ These figures treat affiliated CLECs under common control as a single competitive entity.

In the past, telecommunications customers generally purchased cellular service as a complement to, rather than as a substitute for, traditional wireline telephone service.⁶ Over time, survey data and substitution studies indicate that consumers increasingly are substituting wireless service for wireline service.⁷ Because this report summarizes competitive substitution for ILEC wireline services, wireless substitution for wireline services is increasingly influencing the competitive information reported.

VoIP services also substitute for traditional wireline telephone service. Many VoIP services closely resemble traditional circuit switched telephone service, but are provided using Internet protocol technologies. Variations of VoIP service include non-nomadic, i.e., facilities-based services, which customers may use from a single location only, and nomadic services, which can be accessed from multiple locations (e.g., from any broadband access point). Customers subscribing to VoIP services appear to do so in substitution of, rather than in addition to, their traditional wireline telephone service.

Reported reductions in wireline telephone lines in Illinois between 2001 and 2009 likely were attributable, in part, to the fact that both nomadic and non-nomadic VoIP lines were not fully accounted for in the total reported line counts. In 2010, Public Act 96-0927 required non-nomadic VoIP providers (registered interconnected VoIP providers) to provide basic information to the Commission. Subsequent reporting compliance by non-nomadic VoIP providers as a result of Public Act 96-0927 accounts for some of the increase in reported CLEC lines between 2009 and 2010.

While registered VoIP providers now report their VoIP lines counts to the Commission, nomadic VoIP providers do not.

Table 3 provides residential market share estimates with wireless substitution included. Data collected and reported by the Centers for Disease Control indicate in 2015 that an estimated 51.4% of the adult population in the mid-west lived in households with only wireless service.⁸ The FCC reported that an

⁶ Since provider reported line counts, like those summarized in this report, do not reveal whether and where customers have substituted cellular service for some or all of their traditional wireline telephone lines, line count based analyses of competition have generally excluded wireless lines from counts used to calculate incumbent carrier market shares.

⁷ Federal Communications Commission, Eighteenth Report, In the Matter of Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services ("Wireless Competition Report"), DA 15-1487, Released December 23, 2015, Table VII.C.i.

⁸ Stephen J. Blumberg and Julian V. Luke, *Wireless Substitution: Early Release of Estimates From the National Health Interview Survey, July-December 2015*, National Center for Health Statistics, Centers for Disease Control, May 11, 2016, available at <http://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201605.pdf>.

additional 4.1% of households in Illinois had no voice service in 2015.⁹ Assuming that 4.1% and 51.4% of what would otherwise be residential wireline lines were displaced by no service or wireless substitution, respectively, Table 3 displays the estimated overall degree to which residential consumers have substituted other services for traditional ILEC provided wireline service.¹⁰

Table 3: Retail Residential Lines and Market Shares in Illinois (with Estimated Wireless Only Households and Estimated Households with No Phones)

<i>Date</i>	<i>Total Lines</i>	<i>ILEC Lines</i>	<i>CLEC Lines</i>	<i>No Phone Lines</i>	<i>Wireless Only Lines</i>
<i>Dec 2015</i>	5,131,427 (100%)	1,262,779 (24.6%)	1,020,706 (19.9%)	210,389 (4.1%)	2,637,553 (51.4%)

The estimates displayed in Table 3 suggest that approximately 25% of Illinois residential customers received wireline service from an ILEC in 2015, and approximately 75% of Illinois residential customers did not take wireline service from an ILEC.¹¹

D. Retail Wireline Telephone Competition by LATA

This section of the report provides an overview of wireline telephone competition broken down by Local Access and Transport Area (LATA). LATAs are the geographic areas within which Bell Operating Companies (BOCs), such as Ameritech Illinois (now AT&T Illinois), were permitted to carry telephone traffic following their divestiture from AT&T in 1984.

⁹ FCC, Universal Service Monitoring Report, CC Docket No. 96-45 (Data through September 2015), Released December 22, 2015, at Table 6.8.

¹⁰ The estimates here were computed by assuming that the estimated 2,283,485 residential wireline telephone lines represent 44.5% (or 100% - 4.1% - 51.4%) of all residential wireline telephone lines that would, with 100% penetration and no wireless substitution, be provided to residential telephone customer in Illinois. These estimate should be interpreted with caution as they will not be precise if, for example, the 51.4% of the adult population in Illinois living in households with only wireless service would not purchase 51.4% of all lines that would otherwise, with 100% penetration and no wireless substitution, be provided to residential telephone customer in Illinois.

¹¹ The estimates in Table 3 do not fully capture the degree to which consumers have substituted away from ILEC wireline services. Notably, many customers that still subscribe to ILEC wireline phone service also subscribe to wireless service. Many also subscribe to broadband service. Such customers almost certainly rely on wireless and broadband services to partially replace their ILEC wireline service (for example, substituting wireless calls, VoIP calls, and text messages for calls that they formerly would have made using their ILEC wireline services). As the FCC recently reported, “[a] significant percentage of homes with both landline and wireless phone access received all or almost all calls on wireless telephones despite also having a landline telephone.” Wireless Competition Report, ¶ 156.

There are 14 LATAs with substantial geographic areas in Illinois which contain a significant number of Illinois customers. Additionally, four LATAs, while predominately outside of Illinois, include a relatively few Illinois customers.¹² Information applicable to the Illinois portion of these four LATAs will be included with information for the 14 LATAs that lie predominately in Illinois.¹³ Additional detail concerning Illinois LATAs is presented in Appendix A.

**Table 4 – Illinois LATA Demographic Data
U.S. Census 2010**

<i>LATA Name</i>	<i>Area (Sq. Miles)</i>	<i>Population</i>	<i>No. of Households</i>	<i>Population Households per Sq. Mile per Sq. Mile</i>	
<i>Chicago, IL</i>	8,504	8,725,868	3,199,681	1,000	367
<i>Rockford, IL</i> ¹	2,124	425,008	164,759	209	81
<i>Springfield, IL</i>	3,028	362,039	150,834	119	49
<i>St Louis, MO</i>	6,718	801,380	314,902	124	49
<i>Champaign, IL</i> ²	3,635	347,007	139,908	93	38
<i>Davenport, IA</i>	2,058	217,944	90,141	101	42
<i>Peoria, IL</i>	4,834	476,393	191,089	101	41
<i>Sterling, IL</i>	2,966	235,082	90,941	85	33
<i>Forrest, IL</i>	3,698	281,640	108,458	73	28
<i>Cairo, IL</i>	4,863	313,137	127,451	63	26
<i>Mattoon, IL</i>	4,248	220,444	87,598	53	21
<i>Quincy, IL</i>	3,682	159,855	63,531	41	16
<i>Macomb, IL</i>	3,248	128,972	52,301	42	17
<i>Olney, IL</i>	4,309	135,863	55,378	32	13
<i>Total - All LATAs</i>	57,914	12,830,632	4,836,972	222	84
<i>Average</i>	4,137	916,474	345,498	---	---
<i>Standard Deviation</i>	1,673	2,172,433	794,349	---	---

¹ Includes information for those portions of the Southeast and Southwest Wisconsin LATAs located in Illinois.
² Includes information for those portions of the Indianapolis and Terre Haute Indiana LATAs located in Illinois.

Reporting and analysis of wireline telephone data by LATA has several important advantages. First, disaggregation of statewide information into 14 separate LATA markets illustrates important competitive differences across Illinois markets and regions that cannot be discerned from data aggregated at the state

¹² Although LATA boundaries were created in order to delineate the geographical area within which BOCs could offer long distance services, other LATA boundaries have been created in order to segment non-BOC service territories. The LATA geography adopted here follows Telcordia Technologies, Inc. ("Telcordia" f/k/a Bellcore) conventions as delineated in the local exchange routing guide (LERG).

¹³ Information is aggregated in this manner to protect the confidentiality of individual carrier information reported to the Commission.

level. Second, LATAs are a natural unit for the reporting of many types of information by telephone companies. Notably, the telephone numbers provided to LECs for assignment to their customers are, with limited exceptions, assigned uniquely to LATAs.¹⁴ This permits the Commission to readily identify the LATAs within which telephone customers reside.¹⁵ Finally, data disaggregated by LATA still are sufficiently aggregated to protect sensitive competitive information, and the proprietary concerns of local telephone service providers.¹⁶

Table 4 displays basic demographic information for each Illinois LATA. It reveals that there is considerable variation in LATA demographics within Illinois. Not surprisingly, the Chicago LATA surpasses all other Illinois LATAs both in total population and population density.

Table 5 shows CLEC market shares by LATA. These market share estimates are based upon reported wireline telephone lines.

Table 5 – CLEC Market Shares by LATA
December 31, 2015

<i>LATA Name</i>	<i>Reported CLEC Market Share</i>	<i>Reported CLEC Residential Market Share</i>	<i>Reported CLEC Business Market Share</i>
<i>Statewide</i>	43.4%	44.7%	42.1%
<i>Chicago, IL</i>	47.3%	49.0%	45.5%
<i>Rockford, IL¹</i>	50.5%	54.0%	46.1%
<i>Cairo, IL</i>	21.7%	22.0%	21.4%
<i>Sterling, IL</i>	41.7%	46.0%	36.5%
<i>Forrest, IL</i>	34.8%	44.4%	24.5%
<i>Peoria, IL</i>	41.3%	46.3%	35.0%
<i>Champaign, IL²</i>	37.1%	44.6%	28.2%
<i>Springfield, IL</i>	34.5%	44.7%	24.6%
<i>Quincy, IL</i>	26.0%	21.9%	30.8%
<i>St Louis, MO</i>	24.6%	6.5%	42.6%
<i>Davenport, IA</i>	34.1%	35.0%	32.9%
<i>Mattoon, IL</i>	11.8%	14.4%	7.7%
<i>Macomb, IL</i>	23.9%	28.1%	16.6%
<i>Olney, IL</i>	15.8%	17.0%	13.8%

¹⁴ Traditionally, blocks of telephone numbers have been assigned uniquely to rate exchange areas, which in turn, have been uniquely assigned to LATAs.

¹⁵ The use of more “traditional” means to identify the location of individual telephone customers, such as the county of residence, is, at best, problematic, since telephone numbers are assigned to geographic areas with boundaries that are not congruent with the boundaries of the more traditional geographical divisions.

¹⁶ Per the Commission’s Administrative Rules, the Commission offers proprietary treatment to individual company retail provisioning information. Therefore, all retail provisioning numbers have been aggregated into carrier classes.

E. CLEC Methods of Provisioning Retail Wireline Telephone Services

As previously noted, CLECs can provide wireline telephone service to customers via several methods:

- Building and using their own facilities exclusively,
- Leasing a portion of the facilities needed to serve end-user customers from ILECs as unbundled network elements,
- Leasing all or a portion of the facilities needed to serve end-user customers from ILECs under commercial agreements,
- Purchasing telecommunications services from ILECs at discounted prices and reselling these services to customers,
- Leasing or purchasing telecommunications services from non-ILECs at discounted prices and reselling these services to customers, and
- Providing telephone service over broadband connections and/or using Internet protocol facilities.

These methods are not mutually exclusive; they can each be employed by a particular CLEC to provide services at different times and/or in different regions. For example, a CLEC may deploy its own network in a particular part of the state while using resale to provide services to consumers in another area of the state.¹⁷

Table 6 shows that at year-end 2015, approximately 1,592,000 CLEC retail wireline telephone lines in Illinois (82% of the CLEC total) were provisioned entirely over CLEC owned facilities or using Internet protocol technologies. Approximately 202,000 CLEC retail wireline telephone lines (10% of all CLEC lines) were provisioned over facilities leased (in part or in whole) from ILECs. Approximately 129,000 CLEC lines (about 7%) were provided by CLECs purchasing discounted services from ILECs and reselling them to their customers. Finally, about 43,000 lines (or approximately 2%) were provided by CLECs using non-ILEC third party facilities and/or services.

¹⁷ The basic network elements used in the provision of wireline telephone service include local loops (connecting customer premises to telephone company switching equipment), local switching, and interoffice transport (between telephone company switches). In some circumstances CLECs may lease some of these basic network elements from an ILEC pursuant to ILEC obligations under federal and/or state law. CLECs can provide service using various combinations of ILEC supplied network elements and their own self-supplied elements. The most common variant of this approach is to lease ILEC local loops and self-supply local switching. When CLECs combine leased ILEC loops with their own (or third party supplied) local switching, such combinations are termed unbundled network element loop (UNE-L) combinations. The term applied to describe leasing of complete combinations of local loops, local switching, and interoffice transport, when leased pursuant to state or federal rules, was UNE-P. ILECs have been relieved of most state and federal obligations to provide UNE-P.

Table 6: CLEC Reported Retail Wireline Telephone Lines by Provisioning Method
(Percentages of Total for Each Year in Brackets)

	Own Facilities and VoIP	UNE-L	UNE-P ³	Commercial Agreement with ILEC ¹	Resale from ILEC	Use of 3rd Party Non-ILEC ²	All Methods
Dec 2001	460,598 (33%)	314,459 (22%)	314,718 (22%)	NA	NA	NA	1,407,814 (100%)
Dec 2002	433,131 (26%)	355,658 (21%)	644,932 (38%)	NA	318,039 (23%)	NA	1,697,976 (100%)
Dec 2003	434,524 (24%)	362,102 (20%)	804,036 (45%)	NA	264,255 (16%)	NA	1,778,567 (100%)
Dec 2004	616,218 (34%)	278,616 (15%)	793,410 (43%)	NA	177,905 (10%)	NA	1,840,677 (100%)
Dec 2005	635,691 (47%)	245,783 (18%)	384,975 (29%)	NA	152,433 (8%)	NA	1,343,894 (100%)
Dec 2006	369,098 (33%)	311,131 (28%)	59,076 (5%)	209,048 (19%)	139,202 (13%)	25,877 (2%)	1,113,432 (100%)
Dec 2007	635,391 (46%)	277,319 (20%)	NA	255,825 (19%)	195,667 (14%)	12,670 (1%)	1,376,882 (100%)
Dec 2008	804,510 (55%)	303,265 (21%)	NA	123,607 (8%)	148,532 (10%)	83,444 (6%)	1,463,358 (100%)
Dec 2009	886,950 (60%)	270,607 (18%)	NA	119,745 (8%)	175,592 (12%)	15,021 (1%)	1,467,915 (100%)
Dec 2010	1,118,056 (63%)		415,493 (23%)		191,452 (11%)	58,984 (3%)	1,783,985 (100%)
Dec 2011	1,370,870 (76%)		245,363 (14%)		173,498 (10%)	3,992 (0%)	1,793,723 (100%)
Dec 2012	1,412,041 (75%)		231,963 (12%)		147,329 (8%)	84,794 (5%)	1,876,127 (100%)
Dec 2013	1,460,574 (75%)		194,613 (10%)		241,790 (12%)	64,285 (3%)	1,961,262 (100%)
Dec 2014	1,797,527 (82%)		209,309 (10%)		142,120 (7%)	39,006 (2%)	2,187,962 (100%)
Dec 2015	1,592,314 (81%)		201,823 (10%)		128,985 (7%)	43,449 (2%)	1,966,571 (100%)

¹ Category added in 2006. Prior to 2006 lines in this category, if any, may have been included along with UNE-P and/or resale.
² Category added in 2006. Prior to 2006 lines in this category may have been included along with resale.
³ Lines reported as UNE-P are, beginning with Dec 2007, included as lines in the Commercial Agreement with ILEC category.

As Table 7 shows, 94 CLECs provided some wireline telephone service completely over their own facilities or using VoIP technologies. Seventeen CLECs provided some wireline telephone service entirely or partially over facilities leased from ILECs. Statewide, 38 CLECs provided wireline telephone service over resold lines. Finally, 11 CLECs provided wireline telephone service using non-ILEC third party facilities and/or services.

Table 7: CLEC Retail Wireline Telephone Providers by Provisioning Method

	<i>Own Facilities or VoIP</i>	<i>UNE-L</i>	<i>UNE-P²</i>	<i>Commercial Agreement with ILEC</i>	<i>Resale</i>	<i>Use of 3rd Party Non-ILEC</i>	<i>All Methods¹</i>
<i>Dec 01</i>	11	12	11	NA	23	NA	35
<i>Dec 02</i>	10	14	16	NA	30	NA	45
<i>Dec 03</i>	14	14	23	NA	29	NA	53
<i>Dec 04</i>	14	15	40	NA	28	NA	65
<i>Dec 05</i>	11	16	37	NA	29	NA	69
<i>Dec 06</i>	19	17	21	24	40	13	91
<i>Dec 07</i>	15	18	NA	39	37	6	80
<i>Dec 08</i>	19	19	NA	32	39	10	87
<i>Dec 09</i>	17	18	NA	35	44	12	84
<i>Dec 10</i>	37	32			42	10	82
<i>Dec 11</i>	48	26			35	11	76
<i>Dec 12</i>	51	22			42	14	89
<i>Dec 13</i>	52	27			40	14	88
<i>Dec 14</i>	77	26			37	9	107
<i>Dec 15</i>	94	17			38	11	121

¹ The sum of CLECs providing services over the respective provisioning methods exceeds the total number of CLECs providing services because some CLECs provide services using more than one method of provisioning.
² Companies reported as UNE-P are, beginning with Dec 2007, included as companies in the Commercial Agreement with ILEC category.

F. Mobile Wireless Subscribership

Data on mobile wireless subscribership are reported to the FCC by wireless providers on a state-by-state basis. Wireless mobile service is similar to wireline telephone service in that it permits subscribers to place and receive calls to and from any other user on the PSTN.

Table 8 shows wireless subscribership data for Illinois and for the nation as a whole (reported to the FCC). In December 2014, mobile wireless providers reported approximately 13.2 million subscribers in Illinois.

Table 8: Mobile Wireless Subscribers
(Millions)¹⁸

	<i>Total US Subscribers</i>	<i>Total IL Subscribers</i>
DEC 1999	79.7	3.9
JUNE 2000	90.6	4.3
DEC 2000	101.0	5.1
JUNE 2001	114.0	5.6
DEC 2001	124.0	5.6
JUNE 2002	130.8	5.4
DEC 2002	138.9	6.5
JUNE 2003	147.6	6.8
DEC 2003	157.0	7.2
JUNE 2004	167.3	7.5
DEC 2004	181.1	8.1
JUNE 2005	192.1	8.2
DEC 2005	203.7	8.7
JUNE 2006	217.4	9.1
DEC 2006	229.6	9.6
JUNE 2007	238.2	9.9
DEC 2007	249.2	10.3
JUNE 2008	255.7	10.6
DEC 2008	261.3	10.9
JUNE 2009	265.3	11.1
DEC 2009	274.3	11.5
JUNE 2010	278.9	11.6
DEC 2010	285.1	12.1
JUNE 2011	290.3	12.3
DEC 2011	298.3	12.7
JUNE 2012	301.5	12.9
DEC 2012	304.9	12.9
JUNE 2013	305.7	12.8
DEC 2013	310.7	12.8
JUNE 2014	314.5	12.9
DEC 2014	322.5	13.2

¹⁸ Source: Federal Communications Commission subscriber information reported at <https://www.fcc.gov/voice-telephone-services-report> and <https://www.fcc.gov/general/local-telephone-competition-reports/>. Subscriber counts for periods before June 2005 include only counts for subscribers served by large providers (those with over 10,000 subscribers in a state).

III. BROADBAND SERVICES

A. Overview

Section 13-407 of the PUA requires that the Commission monitor and analyze the deployment of high-speed (broadband) communications services in Illinois. The terms “high speed” and “broadband” communications appear interchangeable in Illinois statute,¹⁹ and the Commission adopts that convention in this Report. High-speed telecommunications services reported here provide the subscriber with data transmission at speeds in excess of 200 kilobits per second (kbps) in at least one direction.

High-speed service provisioning is reported by state to the FCC by providers of high-speed lines.²⁰ The information reported here encompasses three methods of high-speed service provisioning:

- high speed service over ADSL technology,
- high-speed service over coaxial cable (cable modem) technology,
- high-speed service over mobile wireless technology, and
- high-speed service over “other” technologies.

ADSL and cable modem technologies are most commonly used to provide services to residential customers. These technologies typically provide customers a single path to the Internet, and services provided via ADSL and cable modem technologies generally are viewed as substitutes. Technologies in the “other” category include symmetric DSL, traditional T1 wireline, fiber optic to the customer’s premises, satellite, and (terrestrial) fixed wireless.²¹

The following descriptions of ADSL and cable modem technologies are taken from the FCC’s Deployment of Telecommunications Capability: Second Report:

ADSL Technology

¹⁹ See 20 ILCS 661/1, et seq. (High Speed Internet Services and Information Technology Act); 220 ILCS 5/13-407.

²⁰ Prior to mid-year 2005, only providers with at least 250 lines in a given state reported to the FCC. There is no indication of how comprehensively small providers, many of which serve rural areas with relatively small populations, are represented in the FCC data summarized here for periods prior to mid-year 2005. See FCC, High Speed Services for Internet Access: Status as of December 31, 2001, Released July 2002, at 1-2.

²¹ Services provided over technologies in the “other” category vary greatly in quality, speed, and price. These technologies are commonly used to provide service to medium and large business customers, rather than residential customers. Therefore, comparison of figures for the “other” category to ADSL and cable modem figures is largely an apples to oranges exercise --- as is comparison of “other” figures across states. Accordingly, while figures for the “other” technologies category are presented here for completeness, caution should be exercised in their interpretation.

With the addition of certain electronics to the telephone line, carriers can transform the copper loop that already provides voice service into a conduit for high-speed data traffic. While there are multiple variations of DSL ... most DSL offerings share certain characteristics. With most DSL technologies today, a high-speed signal is sent from the end-user's terminal through the last 100 feet and the last mile (sometimes a few miles) consisting of the copper loop until it reaches a Digital Subscriber Line Access Multiplexer (DSLAM), usually located in the carrier's central office. At the DSLAM, the end-user's signal is combined with the signals of many other customers and forwarded through a switch to middle mile facilities.

As its name suggests, ADSL provides speeds in one direction (usually downstream) that are greater than the speeds in the other direction. Many, though not all, residential ADSL offerings provide speeds in excess of 200 kbps in only the downstream path with a slower upstream path and thus do not meet the standard for advanced telecommunications capability. However, ADSL permits the customer to have both conventional voice and high-speed data carried on the same line simultaneously because it segregates the high frequency data traffic from the voice traffic. This segregation allows customers to have an "always on" connection for the data traffic and an open path for telephone calls over a single line. Thus a single line can be used for both a telephone conversation and for Internet access at the same time.²²

Cable Modem Technology

Cable modem technologies rely on the same basic network architecture used for many years to provide multichannel video service, but with upgrades and enhancements to support advanced services. The typical upgrade incorporates what is commonly known as a hybrid fiber-coaxial (HFC) distribution plant. HFC networks use a combination of high-capacity optical fiber and traditional coaxial cable. Most HFC systems utilize fiber between the cable operators' offices (the "headend") and the neighborhood "nodes." Between the nodes and the individual end-user homes, signals travel over traditional coaxial cable infrastructure. These networks transport signals over infrastructure that serves numerous users simultaneously, i.e., a shared network, rather than providing a

²² FCC's Deployment of Telecommunications Capability: Second Report, August 2000, at ¶¶ 35-36 (footnotes omitted).

dedicated link between the provider and each home, as does DSL technology.²³

The following description of mobile wireless service technology is derived from definitions contained in the FCC's Internet Access Services, Status as of December 31, 2014 report:

Mobile Wireless Technology

Mobile wireless technologies rely on networks of radio towers to transmit signals. Mobile wireless service involves radio communications between mobile and fixed stations or between mobile stations.²⁴

B. Statewide High-Speed Line Subscribership in Illinois

Table 9 shows high-speed line counts nationwide and in Illinois, as reported to the FCC. This table indicates that nationwide and in Illinois there has been substantial growth in high-speed telecommunications lines over time. The reported count of 13 million high speed lines in Illinois (as of Dec 2014) significantly exceeds the estimated count of approximately 66,000 when numbers were first reported to the FCC (as of December 1999).

²³ FCC's Deployment of Telecommunications Capability: Second Report, August 2000, at ¶ 29 (footnotes omitted).

²⁴ FCC's Internet Access Services, Status as of December 31, 2014, March 2016, Glossary.

TABLE 9: High-Speed Lines
(Thousands)²⁵

	Total U.S. Lines	Total IL Lines
DEC 1999	2,754	66
JUNE 2000	4,107	149
DEC 2000	7,070	242
JUNE 2001	9,242	325
DEC 2001	12,793	423
JUNE 2002	15,788	526
DEC 2002	19,881	734
JUNE 2003	22,995	841
DEC 2003	28,230	1,089
JUNE 2004	31,951	1,271
DEC 2004	37,352	1,498
JUNE 2005	42,518	1,817
DEC 2005	51,218	2,160
JUNE 2006	65,271	2,666
DEC 2006	82,810	3,539
JUNE 2007	101,008	4,310
DEC 2007	121,165	5,084
DEC 2008	102,043	4,265
DEC 2009	133,148	5,651
JUNE 2010	152,920	6,464
JUNE 2011	206,124	8,645
JUNE 2012	243,397	10,085
DEC 2012	261,731	10,792
JUNE 2013	275,608	11,300
DEC 2013	293,397	11,952
DEC 2014	321,305	13,151

Table 10 displays high-speed line counts in Illinois by technology. At year-end 2014, the number of high-speed connections provided over ADSL technology was exceeded by the number of such connections provided over Cable Modem technology. This table also displays the continuing emergence and importance of mobile wireless high-speed connections.

²⁵ Source: Federal Communications Commission, Industry Analysis and Technology Division, Wireline Competition Bureau, Internet Access Services: Status as of December 31, 2014, Released March 2016. Information for dates prior to December 31, 2014 is found at: <https://www.fcc.gov/general/broadband-deployment-data-fcc-form-477>. Line counts for periods before June 2005 include only lines provided by large providers (those with over 250 lines in a state).

TABLE 10: Illinois High-Speed Connections by Technology
December 31, 2014
(Thousands)²⁶

ADSL	Cable Modem	Mobile Wireless	Other	Total
1,291	2,353	9,309	198	13,151

Table 11 shows high-speed percentages by download speed in Illinois.

TABLE 11: Illinois Percentage of Fixed High-Speed Connections by Download Speed
December 31, 2014²⁷

% over 200 kbps Downstream	% at least 3 mbps Downstream	% at least 10 mbps Downstream	% at least 25 mbps Downstream
99.4	93.4	71.4	48.9

C. Deployment in Incumbent Telephone Company Service Areas

Public Act 096-0927 designates the non-profit *Partnership for a Connected Illinois* (“PCI”) as the primary entity for collecting broadband data in Illinois. Among its other responsibilities, PCI is to:

Collaborate with the Department [DCEO] and the Illinois Commerce Commission regarding the collection of the information required by this Section to assist in monitoring and analyzing the broadband markets and the status of competition and deployment of broadband services to consumers in the State.

The National Broadband Map²⁸, maintained through a joint effort of the FCC and National Telecommunications and Information Administration (“NTIA”), publishes

²⁶ Source: Federal Communications Commission, Industry Analysis and Technology Division, Wireline Competition Bureau, Internet Access Services: Status as of December 31, 2014, Released March 2016.

²⁷ Source: Federal Communications Commission, Industry Analysis and Technology Division, Wireline Competition Bureau, Internet Access Services: Status as of December 31, 2014, Released March 2016.

²⁸ See <http://www.broadbandmap.gov/>.

certain of the information collected by PCI. Table 12, below, provides broadband deployment data by ILEC service area taken from the National Broadband Map.

Table 12: Broadband Deployment in ILEC Service Areas

(Data as of June 30, 2014)

<i>ILEC Service Area</i>	<i>% of Population with Wireline Access to Download Speeds > 3 Mbps and Upload Speeds > 0.768 Mbps</i>	<i>% of Population with Wireless Access to Download Speeds > 3 Mbps and Upload Speeds > 0.768 Mbps</i>	<i>% of Population with Access to DSL Broadband¹</i>	<i>% of Population with Access to Cable Modem Broadband¹</i>	<i>% of Population with Access to Wireless Broadband¹</i>	<i>% of Population with Access to Fiber Broadband¹</i>
<i>Nationwide</i>	94.8%	99.3%	90.0%	88.8%	99.4%	25.4%
<i>Statewide</i>	97.3%	99.9%	94.1%	92.8%	100%	14.3%
Adams Telephone Cooperative	59.4%	99.1%	96.7%	0.0%	99.9%	57.2%
Alhambra - Grantfork Telephone Company	89.6%	100%	90.9%	36.8%	100%	32.2%
Cambridge Telephone Company ³	88.6%	100%	5.5%	83.1%	100%	0.0%
Cass Telephone Company	98.0%	100%	97.4%	66.2%	100%	25.9%
Clarksville Mutual Telephone Company ³	0.0%	96.9%	0.0%	0.0%	100%	0.0%
C-R Telephone Company	62.0%	100%	62.0%	47.2%	99.4%	0.0%
Crossville Telephone Company	100%	100%	100%	67.6%	100%	0.0%
Egyptian Telephone Cooperative Association	91.2%	90.8%	91.1%	0.1%	94.9%	0.0%
El Paso Telephone Company ³	5.3%	100%	5.3%	0.0%	100%	0.0%
Flat Rock Telephone Cooperate, Inc.	100%	100%	100%	0.0%	100%	0.0%
Citizens Telephone Company of Illinois	91.9%	99.9%	91.7%	53.6%	99.9%	5.8%
Frontier Communications of Depue, Inc.	99.4%	100%	98.9%	69.6%	100%	15.9%
Frontier Communications of Illinois, Inc.	71.0%	100%	94.4%	57.9%	100%	0.0%
Frontier Communications of Lakeside, Inc.	72.2%	100%	93.1%	0.0%	100%	0.0%
Frontier Communications - Midland, Inc.	83.2%	100%	83.5%	15.7%	100%	3.4%
Frontier Communications of Mt. Pulaski, Inc.	89.0%	100%	86.9%	46.4%	100%	8.6%
Frontier Communications of Orion, Inc.	99.5%	100%	99.3%	77.5%	100%	0.0%
Frontier Communications - Prairie, Inc.	83.7%	100%	83.7%	51.2%	100%	0.0%
Frontier Communications - Schuyler, Inc.	98.4%	99.1%	98.4%	52.6%	100%	0.0%
Frontier Communications of the Carolinas Inc.	85.1%	99.7%	83.7%	71.1%	100%	4.9%
Frontier North ⁴	86.5%	97.5%	84.9%	78.4%	99.7%	9.2%
Frontier North (Contel)	88.7%	99.8%	86.3%	75.6%	100%	1.9%
Gallatin River Communications	94.8%	99.9%	92.6%	87.2%	100%	25.6%
Geneseo Telephone Company	98.7%	100%	92.1%	87.6%	100%	5.0%
Glasford Telephone Company	99.2%	100%	99.5%	53.6%	100%	1.1%
Grafton Telephone Company	100%	100%	89.2%	0.0%	100%	99.5%

Table 12: Broadband Deployment in ILEC Service Areas (Continued)

(Data as of June 30, 2014)

ILEC Service Area	% of Population with Wireline Access to Download Speeds > 3 Mbps and Upload Speeds > 0.768 Mbps	% of Population with Wireless Access to Download Speeds > 3 Mbps and Upload Speeds > 0.768 Mbps	% of Population with Access to DSL Broadband ¹	% of Population with Access to Cable Modem Broadband ¹	% of Population with Access to Wireless Broadband ¹	% of Population with Access to Fiber Broadband ¹
Nationwide	94.8%	99.3%	90.0%	88.8%	99.4%	25.4%
Statewide	97.3%	99.9%	94.1%	92.8%	100%	14.3%
Grandview Mutual Telephone Company ³	0.0%	100%	0.0%	0.0%	100%	0.0%
Gridley Telephone Company ³	100%	100%	100%	0.0%	100%	0.0%
Hamilton County Telephone Cooperative	2.2%	93.7%	97.8%	0.9%	97.1%	0.0%
Harrisonville Telephone Company	100%	100%	100%	69.6%	100%	12.8%
Henry County Telephone Company	87.9%	100%	89.7%	72.2%	100%	11.4%
Home Telephone Company	98.3%	100%	17.8%	68.8%	100%	78.4%
Illinois Bell Telephone Company	98.5%	99.9%	94.4%	96.6%	100%	9.1%
Illinois Consolidated Telephone Company ⁴	91.9%	99.8%	91.4%	79.0%	100%	2.2%
Kinsman Mutual Telephone Company ³	0.0%	100%	27.3%	0.0%	100%	0.0%
La Harpe Telephone Company	99.7%	99.1%	44.1%	64.1%	100%	77.1%
Leaf River Telephone Company ³	96.9%	100%	96.9%	0.0%	100%	0.0%
Leonore Mutual Telephone Company ³	100%	100%	100%	0.0%	100%	0.0%
Madison Telephone Company	99.9%	100%	99.4%	97.1%	100%	0.0%
Marseilles Telephone Company	98.3%	100%	98.6%	86.2%	100%	14.6%
McDonough Telephone Cooperative	98.4%	97.6%	98.0%	44.1%	99.6%	36.6%
McNabb Telephone Company	100%	100%	100%	0.0%	100%	0.0%
Metamora Telephone Company	100%	100%	99.9%	91.4%	100%	29.8%
Mid Century Telephone Cooperative, Inc.	98.4%	99.1%	91.1%	33.1%	100%	7.7%
Montrose Mutual Telephone Company	99.0%	98.9%	99.0%	0.0%	100%	2.0%
Moultrie Independent Telephone Company	100%	100%	100%	0.0%	100%	0.0%
New Windsor Telephone Company	100%	100%	100%	0.0%	100%	0.0%
Odin Telephone Exchange	77.9%	100%	80.1%	52.8%	100%	1.1%
Oneida Telephone Exchange	100%	100%	6.5%	0.0%	100%	100%
Reynolds Telephone Company	65.7%	99.5%	92.4%	65.7%	100%	36.9%
Shawnee Telephone Company	98.1%	72.6%	37.3%	6.8%	78.5%	73.0%
Stelle Telephone Company ⁴	0.0%	100%	75.5%	0.0%	100%	0.0%
Tonica Telephone Company	92.7%	100%	96.4%	56.1%	100%	0.0%
Viola Home Telephone Company	91.4%	100%	91.4%	70.9%	100%	0.0%
Wabash Telephone Cooperative, Inc.	99.8%	97.8%	99.8%	13.0%	98.8%	42.6%
Woodhull Telephone Company	95.9%	100%	94.7%	0.0%	100%	2.8%

¹ To be defined as broadband, speeds must meet: Download Speeds > 0.769 Mbps and Upload Speeds > 0.2 Mbps

² The information in this table reflects only the information for those providers that provided information to PCI. To the extent that providers failed to report to PCI, the numbers will understate availability.

³ This area does not contain a complete broadband record set. Data reported is available data (if any).

⁴ Information for this area is as of June 30, 2013.

IV. CONCLUSION

This report summarizes the market shares of ILECs and CLECs in Illinois local telephone markets. While many other factors affect actual market competitiveness, market share information is a useful starting point for analyzing the status of market competition.²⁹

According to the market share information reported here, total reported wireline telephone lines in Illinois declined between year-end 2014 and year-end 2015 (as has occurred each year since year-end 2001). Consumers continue to increasingly substitute mobile wireless phone service for wireline telephone service. The more consumers turn to such alternatives to wireline telephone services, the less accurate an examination based solely on CLEC wireline telephone market shares will be as a gauge of competition in local telephone markets. For, this reason, the information contained in this report must be interpreted with caution.

Even given such limitations, the market share data and other information presented in this report reveal and confirm that competition for incumbent wireline services continues to increase and that such competition continues to increasingly come from providers of both wireless and broadband services.

Recommendations for Legislative Action

The Commission has no specific recommendations for legislative action to accompany this report.

²⁹ "Other things being equal, market share affects the extent to which participants or the collaboration must restrict their own output in order to achieve anticompetitive effects in a relevant market. The smaller the percentage of total supply that a firm controls, the more severely it must restrict its own output in order to produce a given price increase, and the less likely it is that an output restriction will be profitable." Antitrust Guidelines for Collaborations Among Competitors, Issued by Federal Trade Commission and the U.S. Department of Justice, April 2000, Section 3.3.3.

APPENDIX A: Illinois LATA Geography and Demographics

Local Access and Transport Areas (LATAs) are the geographic areas within which Bell Operating Companies (BOCs) were permitted to carry telephone traffic following their divestiture from AT&T. In 1984, BOCs (including Ameritech in Illinois) were prohibited from carrying telephone traffic across LATA boundaries (interLATA traffic), but were allowed to carry telephone traffic, including toll calls, within LATA boundaries (intraLATA traffic). There are 193 domestic LATAs in the United States. Of the 193 domestic U.S. LATAs, 18 are either in whole or in part within Illinois.³⁰

There is considerable variation in size and demographic makeup among the Illinois LATAs.³¹ Table 4 (above) lists size and demographic data for each of the 14 LATAs for which information is presented in this report. Table 4 illustrates that the average LATA in Illinois is approximately 4,100 square miles. The largest LATA in terms of area is the Chicago LATA with approximately 8,500 square miles. The smallest is the portion of the Davenport, Iowa LATA located in Illinois, which encompasses approximately 2,100 square miles.

The Chicago LATA is the most populous LATA in Illinois with over 8.7 million residents, well above the average LATA size of approximately 920,000 residents. The Chicago LATA also contains the greatest number of households, with approximately 3.2 million. In contrast the Macomb, Illinois LATA contains less than 130,000 residents and just over 52,000 households. The Chicago and Olney, Illinois LATAs, respectively, contain the highest and lowest population per square mile. There are nearly 1,000 residents per square mile in the Chicago LATA and less than 32 residents per square mile in the Olney LATA. These two LATAs also contain the highest and lowest number of households per square mile, with 367 households per square mile in the Chicago LATA and 13 households per square mile in the Olney LATA.

Of the 18 LATAs in Illinois, 4 are predominately outside of Illinois and contain very few customers located within Illinois. For this report, information applicable to the pieces of these four LATAs will be included with information for

³⁰ Although LATA boundaries were created in order to delineate the geographical area within which BOCs could offer long distance services, other "LATA" boundaries have been created in order to segment non-BOC service territories. The LATA geography adopted here follows Telcordia Technologies, Inc. ("Telcordia" f/k/a Bellcore) conventions as delineated in the local exchange routing guide ("LERG").

³¹ The LATA size and demographic information contained in this table is derived from U.S. Census 2010 obtained from U.S. Department of Commerce, Census Bureau Web Site at <http://www.census.gov/>. To obtain estimates of area and demographic information, Staff aggregated census block group information up to the LATA level, assigning each census block group uniquely to the LATA containing the centroid of the census block group.

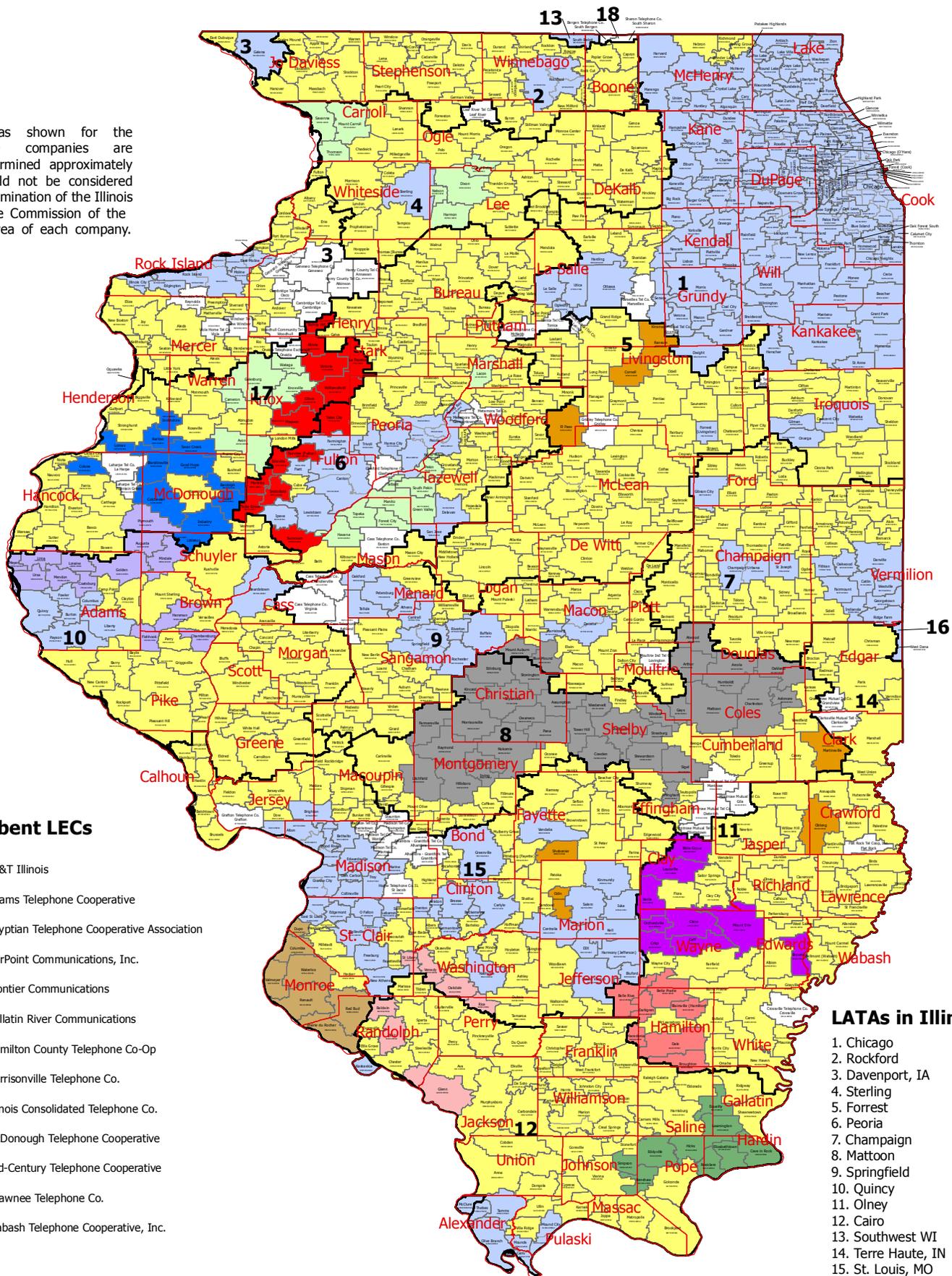
LATAs that are predominately in Illinois or contain a significant number of Illinois customers. For example, very few Illinois residents or businesses are located within the Terre Haute, Indiana LATA. The information reported for Illinois residents and businesses in the Terre Haute, Indiana LATA is, therefore, included in information reported for the Champaign, Illinois LATA. There are a significant number of Illinois residents and businesses located within the St Louis, Missouri LATA. Therefore, information for Illinois residents and businesses in the St Louis, Missouri LATA is reported separately from other Illinois LATAs. All information reported is for those customers located in Illinois. For example, no information is reported for customers located in the Missouri portions of the St Louis, Missouri LATA. Figure A-1 depicts the 18 LATAs for which information is reported in this report.

Figure A1: Local Access and Transport Areas ("LATAs") and Rate Exchange Area Boundaries in the State of Illinois

The areas shown for the respective companies are only determined approximately and should not be considered as a determination of the Illinois Commerce Commission of the service area of each company.

Incumbent LECs

- AT&T Illinois
- Adams Telephone Cooperative
- Egyptian Telephone Cooperative Association
- FairPoint Communications, Inc.
- Frontier Communications
- Gallatin River Communications
- Hamilton County Telephone Co-Op
- Harrisonville Telephone Co.
- Illinois Consolidated Telephone Co.
- McDonough Telephone Cooperative
- Mid-Century Telephone Cooperative
- Shawnee Telephone Co.
- Wabash Telephone Cooperative, Inc.



LATAs in Illinois

1. Chicago
2. Rockford
3. Davenport, IA
4. Sterling
5. Forrest
6. Peoria
7. Champaign
8. Mattoon
9. Springfield
10. Quincy
11. Olney
12. Cairo
13. Southwest WI
14. Terre Haute, IN
15. St. Louis, MO
16. Indianapolis, IN
17. Macomb
18. Southeast WI

APPENDIX B: Wireline Telephone Provisioning Detail

Table B1 – B3 contain detail wireline telephone provisioning information for the 14 Illinois LATAs examined in this report. Table B1 contains wireline telephone lines in each LATA provided by ILECs, CLECs and all LECs combined. Tables B2 and B3 contain similar information regarding, respectively, residential and business wireline telephone line provisioning.

**Table B1 - Retail Wireline Telephone Provision by LATA
(December 31, 2015)**

LATA	LATA Name	All LECs	All LEC Lines	ILECs	ILEC Lines	CLECs	CLEC Lines	CLEC Lines as % of Total
358	CHICAGO ILLINOIS	103	3,348,605	7	1,766,351	96	1,582,254	47.3%
360	ROCKFORD ILLINOIS ¹	52	121,874	4	60,290	48	61,584	50.5%
362	CAIRO ILLINOIS	34	73,477	5	57,508	29	15,969	21.7%
364	STERLING ILLINOIS	27	71,715	4	41,777	23	29,938	41.7%
366	FORREST ILLINOIS	29	84,129	4	54,830	25	29,299	34.8%
368	PEORIA ILLINOIS	51	150,903	7	88,556	44	62,347	41.3%
370	CHAMPAIGN ILLINOIS ²	35	86,779	2	54,561	33	32,218	37.1%
374	SPRINGFIELD ILLINOIS	51	135,337	4	88,645	47	46,692	34.5%
376	QUINCY ILLINOIS	33	48,810	3	36,101	30	12,709	26.0%
520	ST LOUIS MISSOURI	55	189,424	10	142,756	45	46,668	24.6%
634	DAVENPORT IOWA	39	66,676	9	43,922	30	22,754	34.1%
976	MATTOON ILLINOIS	19	75,749	4	66,839	15	8,910	11.8%
977	MACOMB ILLINOIS	24	37,623	7	28,643	17	8,980	23.9%
978	OLNEY ILLINOIS	26	39,635	6	33,386	20	6,249	15.8%
Statewide		162	4,530,736	41	2,564,165	121	1,966,571	43.4%

¹ Includes information for those portions of the SE and SW Wisconsin LATAs located in Illinois.

² Includes information for those portions of the Indianapolis Indiana and Terre Haute Indiana LATAs located in Illinois.

**Table B2 - Residential Retail Wireline Telephone Provision by LATA
(December 31, 2015)**

LATA	LATA Name	All LECs	All LEC Lines	ILECs	ILEC Lines	CLECs	CLEC Lines	CLEC Lines as % of Total
358	CHICAGO ILLINOIS	33	1,641,488	7	836,816	26	804,672	49.0%
360	ROCKFORD ILLINOIS ¹	21	68,294	4	31,387	17	36,907	54.0%
362	CAIRO ILLINOIS	18	37,838	5	29,509	13	8,329	22.0%
364	STERLING ILLINOIS	13	39,594	4	21,375	9	18,219	46.0%
366	FORREST ILLINOIS	10	43,632	4	24,264	6	19,368	44.4%
368	PEORIA ILLINOIS	21	84,636	7	45,475	14	39,161	46.3%
370	CHAMPAIGN ILLINOIS ²	15	47,230	2	26,166	13	21,064	44.6%
374	SPRINGFIELD ILLINOIS	20	66,741	4	36,917	16	29,824	44.7%
376	QUINCY ILLINOIS	16	26,192	3	20,452	13	5,740	21.9%
520	ST LOUIS MISSOURI	25	94,381	9	88,204	16	6,177	6.5%
634	DAVENPORT IOWA	19	39,565	9	25,726	10	13,839	35.0%
976	MATTOON ILLINOIS	10	46,087	4	39,454	6	6,633	14.4%
977	MACOMB ILLINOIS	14	23,697	7	17,028	7	6,669	28.1%
978	OLNEY ILLINOIS	12	24,110	6	20,006	6	4,104	17.0%
	Statewide	86	2,283,485	41	1,262,779	45	1,020,706	44.7%

¹ Includes information for those portions of the SE and SW Wisconsin LATAs located in Illinois.

² Includes information for those portions of the Indianapolis Indiana and Terre Haute Indiana LATAs located in Illinois.

**Table B3 - Business Retail Wireline Telephone Provision by LATA
(December 31, 2015)**

LATA	LATA Name	All LECs	All LEC Lines	ILECs	ILEC Lines	CLECs	CLEC Lines	CLEC Lines as % of Total
358	CHICAGO ILLINOIS	98	1,707,117	7	929,535	91	777,582	45.5%
360	ROCKFORD ILLINOIS ¹	47	53,580	4	28,903	43	24,677	46.1%
362	CAIRO ILLINOIS	32	35,639	5	27,999	27	7,640	21.4%
364	STERLING ILLINOIS	25	32,121	4	20,402	21	11,719	36.5%
366	FORREST ILLINOIS	27	40,497	4	30,566	23	9,931	24.5%
368	PEORIA ILLINOIS	49	66,267	7	43,081	42	23,186	35.0%
370	CHAMPAIGN ILLINOIS ²	31	39,549	2	28,395	29	11,154	28.2%
374	SPRINGFIELD ILLINOIS	48	68,596	4	51,728	44	16,868	24.6%
376	QUINCY ILLINOIS	29	22,618	3	15,649	26	6,969	30.8%
520	ST LOUIS MISSOURI	49	95,043	10	54,552	39	40,491	42.6%
634	DAVENPORT IOWA	38	27,111	9	18,196	29	8,915	32.9%
976	MATTOON ILLINOIS	17	29,662	4	27,385	13	2,277	7.7%
977	MACOMB ILLINOIS	23	13,926	7	11,615	16	2,311	16.6%
978	OLNEY ILLINOIS	25	15,525	6	13,380	19	2,145	13.8%
Statewide		157	2,247,251	41	1,301,386	116	945,865	42.1%

¹ Includes information for those portions of the SE and SW Wisconsin LATAs located in Illinois.

² Includes information for those portions of the Indianapolis Indiana and Terre Haute Indiana LATAs located in Illinois.