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

July 31 2013

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STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

July 31, 2013

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 Report to the General Assembly entitled "Annual Report on Communications Markets in Illinois."

This report is submitted to the Illinois General Assembly in compliance with Section 13-407 of the Illinois Public Utilities Act.

Sincerely,

Doug Scott
Chairman

527 East Capitol Avenue, Springfield, Illinois 62701 [TDD ("V/TTY") [217] 782-7434]

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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 twelfth 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:

- 40 incumbent local exchange carriers (ILECs) and 89 competitive local exchange carriers (CLECs) reported providing wireline telephone service to Illinois customers as of December 31, 2012.

- CLECs, including fixed voice over Internet protocol (VoIP) providers, provided approximately 1.9 million (or 35%) of the roughly 5.3 million reported total Illinois wireline telephone lines in service at year-end 2012. The number of CLEC reported wireline telephone lines statewide changed little between year-end 2011 and year-end 2012.

- ILECs provided approximately 3.5 million (or 65%) of the roughly 5.3 million reported Illinois wireline telephone lines in service at year-end 2012. The number of ILEC reported wireline telephone lines decreased in Illinois from approximately 3.9 million at year-end 2011 to approximately 3.5 million at year-end 2012.

- Approximately 9 million Illinois retail wireline telephone lines were reported at year end 2001. Approximately 5.3 million Illinois retail wireline telephone lines were reported at year end 2012. Thus, reported Illinois retail wireline telephone lines decreased by approximately 3.7 million (or 41%) between year-end 2001 and year-end 2012.

- Based on estimates derived from residential E-911 listings, approximately 75,000 residential competitive provider lines were provided by providers that currently do not report line counts to the Commission. If these lines are added to the reported CLEC wireline telephone counts and wireline telephone counts overall, then CLECs provided approximately 2.0 million (or 36%) of the roughly 5.4 million estimated Illinois wireline telephone lines.

- Mobile-wireless subscribership continues to grow. The number of wireless subscribers in Illinois as of December 2011 (approximately 12.7 million)

exceeds the number of reported wireline subscribers for all periods since the Commission began producing reports pursuant to Section 13-407.

- Data collected by the Centers for Disease Control (CDC) indicate that in 2012 approximately 34% 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 available, the CDC figures suggest that approximately 38% of Illinois residential customers received wireline service from an ILEC in 2012 and that approximately 62% of Illinois residential customers did not take wireline service from an ILEC.

- Illinois providers served nearly 10.1 million Illinois broadband customers as of June 30, 2012.

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LIST OF ACRONYMS

ADSL – Asymmetric Digital Subscriber Line
ARRA – American Recovery and Reinvestment Act
BOC – Bell Operating Company
BTOP – Broadband Technologies Opportunities Program
CDC – Centers for Disease Control
CLEC – Competitive Local Exchange Carrier
DSL –Digital Subscriber Line
DSLAM – Digital Subscriber Line Access Multiplexer
E-911 – Enhanced 911
FTTC – Fiber to the Curb
FTTH – Fiber to the Home
FTTT – Fiber to the Tower
Gbps – Gigabits per Second
HFC – Hybrid Fiber-Coaxial
ICN – Illinois Century Network
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
RUS – Rural Utility Service
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
WiMax -- Worldwide Interoperability for Microwave Access

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.

PUA Section 13-407 was amended on June 15, 2010 with the enactment of P.A. 096-0927. Among other things, these amendments explicitly require the Commission to include analyses of broadband services in its Report, and also direct the Commission to collect and evaluate information from registered interconnected VoIP providers in Illinois.

This current Report, dated July 31, 2013, 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, 2012),
- the most recent data made available by the FCC (as of June 30, 2012 and December 31, 2011, respectively) concerning high speed and wireless service provisioning,
- the most recent broadband deployment information made available in the National Broadband Map[1] (as of June 30, 2012) 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 B4). Selected data from these tables are highlighted and displayed in several sections of the Report.[2]

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[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, 2012.

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]

The Illinois PUA and the Federal Telecommunications Act of 1996 encourage and endorse the development of competition in local

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[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 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 affiliates as competitors and of excluding competitive activity by ILEC affiliates outside their affiliated ILEC service areas.

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.

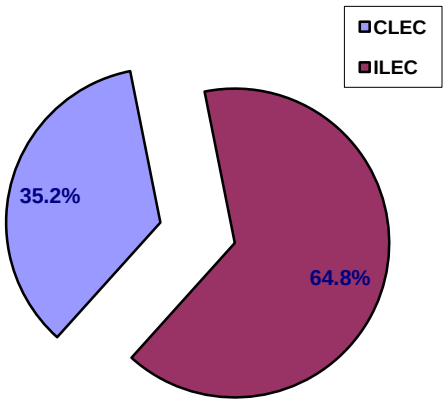
Recently, competitors have increasingly adopted additional methods of entry, including:

- 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 operation 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 2012, reporting CLECs provided approximately 35% of all reported retail wireline telephone lines in Illinois. Approximately 5.3 million total retail wireline telephone lines were reported in Illinois. ILECs provided approximately 3.5 million lines (or 65%), while reporting CLECs provided approximately 1.9 million lines (or 35%). Table 1 displays these figures and comparable year-end figures for years 2001 through and including 2012.

Table 1: Retail Wireline Telephone Lines in Illinois

Date	*Total Lines*	*ILEC Lines*	*CLEC Lines*	*CLEC Share*
Dec 2001	9,036,493	7,628,679	1,407,814	16%
Dec 2002	8,727,943	7,029,967	1,697,976	19%
Dec 2003	8,327,835	6,549,268	1,778,567	21%
Dec 2004	8,103,503	6,262,826	1,840,677	23%
Dec 2005	7,805,958	6,462,064	1,343,894	17%
Dec 2006	7,221,713	6,108,281	1,113,432	15%
Dec 2007	7,061,103	5,684,221	1,376,882	20%
Dec 2008	6,691,734	5,228,376	1,463,358	22%
Dec 2009	6,278,499	4,810,584	1,467,915	23%
Dec 2010	6,091,400	4,307,415	1,783,985	29%
Dec 2011	5,645,938	3,852,215	1,793,723	32%
Dec 2012	5,337,103	3,460,976	1,876,127	35%

As Table 2 shows, 40 ILECs provided wireline telephone lines in Illinois in 2012.[4] The 4 largest ILECs (AT&T, Frontier, Consolidated, and CenturyLink) provided over 98% of all ILEC retail wireline telephone lines, while the remaining 36 ILECs provided approximately 2% of the total ILEC lines in Illinois.

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[4] Fluctuation in ILEC counts are explained over time 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 incumbent local exchange carriers, Clarksville Mutual Telephone, Grandview Mutual Telephone, and Leonore Mutual Telephone, were not required pursuant to Section 13-407 of the Illinois Public Utilities Act to and did not report line counts to the Commission for year-end 2010 and year-end 2011. Similarly, for 2012 four mutual incumbent local exchange carriers, Clarksville Mutual Telephone, Grandview Mutual Telephone, Kinsman Mutual Telephone Company, and Leonore Mutual Telephone, were not required pursuant to Section 13-407 of the Illinois Public Utilities Act to and did not report line counts to the Commission for year-end 2012. As of July 1, 2010, Frontier assumed control of ILEC properties formerly under the control of Verizon. One mutual incumbent local exchange carrier, 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 incumbent local exchange carriers, 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.

Eighty-nine CLECs reported providing retail wireline telephone service in Illinois in 2012.[5] Of these 89 CLECs, the 4 largest (Comcast, Windstream, WOW!, and Verizon) accounted for approximately 66% of all reported CLEC retail wireline telephone lines, while the remaining 85 CLECs provided approximately 34% of all reported CLEC retail wireline telephone lines.

Table 2: Retail Wireline Telephone Providers in Illinois

Date	*No. of Retail wireline telephone Providers Reporting*	*No. of ILEC wireline telephone Providers Reporting*	*No. of CLEC wireline telephone Providers Reporting*
Dec 2001	82	47	35
Dec 2002	94	49	45
Dec 2003	102	49	53
Dec 2004	114	49	65
Dec 2005	114	45	69
Dec 2006	136	45	91
Dec 2007	125	45	80
Dec 2008	132	45	87
Dec 2009	129	45	84
Dec 2010	123	41	82
Dec 2011	117	41	76
Dec 2012	129	40	89

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 5.4 million, or approximately 3.7 million lines (nearly 41%) between year-end 2001 and year-end 2012. 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.

In the past, telecommunications customers generally purchased cellular service as a complement to, rather than as a substitute for, traditional wireline

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

telephone service.[6] Recent 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. Due to their 911 obligations, some VoIP providers supply 911 service information used to populate wireline E-911 databases.[8] As a result, E-911 information can be used as a proxy for line count information.

Companies that maintain E-911 databases in Illinois reported to the Commission counts of non-wireless E-911 listings in Illinois at year-end 2012. Typically, E-911 databases contain information for each residential line in the communities served by the E-911 system. Thus, E-911 listings provide a reasonably accurate and useful proxy for the number of residential telephone lines in the communities served by E-911 systems. These counts do not provide

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[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, Fifteenth Report, In the Mater 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 Commercial Mobile Services, FCC 11-103, Released June 27, 2011, at ¶ 363.

[8] E-911 databases contain, for telephones with access to the PSTN, telephone number, street address, and other information used within the 911 system to identify and dispatch emergency service personnel in response to emergency assistance requests.

a perfect proxy. A few selected communities do not yet have E-911 systems, which will cause the number of reported residential E-911 lines to fall short of the number of residential telephone lines in service.[9] Moreover, while the FCC has required providers using VoIP technologies to provide E-911 service, not all VoIP providers are in full compliance. Some nomadic VoIP providers also do not include their information in the non-wireless E-911 listings. Thus, E-911 listings likely understate the number of residential telephone lines in service.[10]

The number of unreported competitive residential non-wireless telephone lines in Illinois can be estimated by examining the difference between E-911 listings and the number of lines reported to the Commission. Year-end 2012 E-911 figures suggest that approximately 75,000 residential competitive provider lines went unreported to the Commission at year-end 2012.[11]

Table 3: Estimated Total Retail Lines in Illinois (including Non-Reported Residential E-911 Listings)

Date	*Total Lines*	*ILEC Lines*	*CLEC Lines*	*ILEC Share*	*CLEC Share*
Dec 2012	5,412,463	3,460,976	1,951,487	64%	36%

This estimated total of 75,000 unreported residential CLEC lines at year-end 2012 (displayed in Table 3) likely falls short of the actual number of unreported lines. This estimate would increase if the E-911 data included listings for areas in which E-911 service was not available at year-end 2012, and if all VoIP providers had fully functional E-911 capabilities. It also does not account for the degree to which business lines are unreported. Thus, there remains, based on the reductions in line counts reported in Table 1, unreported retail lines that cannot be explained by information contained in the E-911 data.

The most significant omission in the tables presented above is the total absence of wireless information. In particular, Table 3 does not account for the degree to which customers are substituting wireless telephone service for

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[9] For information on the E-911 systems, including their availability across Illinois, see Illinois Commerce Commission, 2012 Illinois 911 Status Report at: http://www.icc.illinois.gov/911/.

[10] There are also factors that could cause E-911 listings to overstate the number of residential telephone lines in service. For example, E-911 listings might overstate publicly provided telecommunications lines because of a provider's failure to remove listings for customers that have discontinued service in a timely manner. The analysis contained above is premised on the assumption that such factors are relatively insignificant. Nevertheless, as cautioned above, without systematic evidence that would shed light on the accuracy of these assumptions, caution should be exercised when interpreting the results reported here.

[11] In areas where there is no E-911 system, line counts were reported that were not reflected in the E-911 system. Thus, for example, in the Macomb LATA, where there were several areas without E-911 at the end of 2011, reported line counts actually exceeded E-911 counts. E-911 information for LATAs where E-911 line counts fell below reported line counts are excluded from the figures above.

wireline telephone service. It is possible to estimate the impact of wireless substitution for ***residential*** communications markets statewide in Illinois.

Table 4: Estimated Residential Retail Lines in Illinois (including Non-Reported Residential E-911 Listings)

Date	*Total Lines*	*ILEC Lines*	*CLEC Lines*	*ILEC Share*	*CLEC Share*
Dec 2012	2,919,081	1,811,867	1,107,214	62%	38%

Table 4 provides estimates of residential telephone market shares without accounting for wireless substitution. Table 5 provides residential market share estimates with wireless substitution included. Data collected and reported by the Centers for Disease Control indicate in 2012 that an estimated 34.0% of the adult population in Illinois lived in households with only wireless service.[12] The FCC reported that an additional 5.3% of households in Illinois had no service in 2012.[13] Assuming that 5.3% and 34.0% of what would otherwise be residential wireline lines were displaced by no service or wireless substitution, respectively, Table 5 displays the estimated overall degree to which residential consumers have substituted other services for traditional ILEC provided wireline service.[14]

Table 5: Retail Residential Lines and Market Shares in Illinois (with Estimated Non-Reported Residential E-911 Listings, Estimated Wireless Only Households and Estimated Households with No Phones)

Date	*Total Lines*	*ILEC Lines*	*CLEC Lines*	*No Phone Lines*	*Wireless Only Lines*
Dec 2012	4,809,030 (100%)	1,811,867 (37.7%)	1,107,214 (23.0%)	254,879 (5.3%)	1,635,070 (34.0%)

The estimates displayed in Table 5 suggest that approximately 38% of Illinois residential customers received wireline service from an ILEC in 2012, and

[12] Stephen J. Blumberg and Julian V. Luke, *Wireless Substitution: Early Release of Estimates From the National Health Interview Survey, January - June 2012*, National Center for Health Statistics, Centers for Disease Control, June, 28 2012, *available at* www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201212.pdf.

[13] FCC, Universal Service Monitoring Report, CC Docket No. 98-202 (Data through October 2012), Released March 2013, at Table 3.8.

[14] The estimates here were computed by assuming that the estimated 2,919,081 residential lines (including non-reported E9-1-1 lines) represent 60.7% (or 100% - 5.3% - 34.0%) of all 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 34.0% of the adult population in Illinois living in households with only wireless service would not purchase 34.0% of all lines that would otherwise, with 100% penetration and no wireless substitution, be provided to residential telephone customer in Illinois.

approximately 62% of Illinois residential customers did not take wireline service from an ILEC.[15]

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 divesture from AT&T in 1984.

There are fourteen LATAs with substantial geographic areas in Illinois which contain a significant number of Illinois customers. An additional four LATAs lie predominately outside of Illinois and encompass relatively few Illinois customers.[16] Information applicable to the Illinois portion of these 4 LATAs will be included with information for the 14 LATAs that lie predominately in Illinois.[17] Additional detail concerning Illinois LATAs is presented in Appendix A.

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 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.[18] This permits the Commission to readily identify the LATAs within which telephone customers reside.[19] Finally, data disaggregated by LATA

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[15] The estimates in Table 5 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).

[16] 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).

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

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

[19] 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.

still are sufficiently aggregated to protect sensitive competitive information, and the proprietary concerns of local telephone service providers.[20]

Table 6 – Illinois LATA Demographic Data

U.S. Census 2010

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

Table 6 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 7 shows CLEC market shares by LATA. These market share estimates are based upon reported wireline telephone lines, and estimates of residential lines contained in the E-911 information not reported directly to the Commission.

[20] Per the Commission's Competition Data Request, the Commission is offering proprietary treatment to individual company retail provisioning information. Therefore, all retail provisioning numbers have been aggregated into carrier classes.

Table 7: CLEC Market Shares by LATA
December 31, 2012

LATA Name	*Reported CLEC Market Share*	*Reported CLEC Residential Market Share*	*Reported CLEC Business Market Share*	*CLEC Market Share with Estimated Unreported Residential E-911 Capable VoIP Lines*	*CLEC Residential Market Share with Estimated Unreported Residential E-911 Capable VoIP Lines*
Statewide	35.2%	36.3%	33.9%	36.1%	37.9%
Chicago, IL	38.5%	40.0%	37.0%	38.5%	40.0%
Rockford, IL[1]	43.2%	43.4%	43.0%	43.4%	43.7%
Cairo, IL	16.8%	15.2%	19.4%	27.8%	31.9%
Sterling, IL	29.3%	34.4%	20.7%	29.3%	34.4%
Forrest, IL	27.2%	29.7%	23.4%	28.7%	32.1%
Peoria, IL	30.3%	33.1%	25.9%	30.3%	33.1%
Champaign, IL[2]	26.5%	30.4%	21.7%	32.0%	39.3%
Springfield, IL	23.6%	31.3%	15.7%	23.6%	31.3%
Quincy, IL	16.6%	11.9%	23.9%	16.6%	11.9%
St Louis, MO	27.1%	28.4%	24.6%	33.9%	38.1%
Davenport, IA	25.3%	26.0%	24.2%	33.5%	38.7%
Mattoon, IL	12.2%	14.2%	9.3%	21.5%	28.3%
Macomb, IL	17.5%	18.0%	16.5%	17.5%	18.0%
Olney, IL	13.7%	13.0%	15.3%	16.3%	16.7%

[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

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.[21]

Table 8 shows that at year-end 2012, approximately 1,412,000 CLEC retail wireline telephone lines in Illinois (75% of the CLEC total) were provisioned entirely over CLEC owned facilities or using Internet protocol technologies. Approximately 232,000 CLEC retail wireline telephone lines (12% of all CLEC lines) were provisioned over facilities leased (in part or in whole) from ILECs. Approximately 147,000 CLEC lines (about 8%) were provided by CLECs purchasing discounted services from ILECs and reselling them to their customers. Finally, about 85,000 lines (or approximately 5%) were provided by CLECs using non-ILEC third party facilities and/or services.

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[21] The basic network elements used in the provision of wireline telephone 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 8: 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%)

[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 9 shows, 51 CLECs provided some wireline telephone service completely over their own facilities or using VoIP technologies. Twenty-two CLECs provided some wireline telephone service entirely over leased facilities. Statewide, 42 CLECs provided wireline telephone service over resold lines. Finally, 14 CLECs provided wireline telephone service using non-ILEC third party facilities and/or services.

Table 9: CLEC Retail Wireline Telephone Providers by Provisioning Method

	Own Facilities or VoIP	*UNE-L*	*UNE-P*[2]	*Commercial Agreement with ILEC*	*Resale*	*Use of 3rd Party Non-ILEC*	*All Methods*[1]
Dec 01	11	12	11	NA	23	NA	35
Dec 02	10	14	16	NA	30	NA	45
Dec 03	14	14	23	NA	29	NA	53
Dec 04	14	15	40	NA	28	NA	65
Dec 05	11	16	37	NA	29	NA	69
Dec 06	19	17	21	24	40	13	91
Dec 07	15	18	NA	39	37	6	80
Dec 08	19	19	NA	32	39	10	87
Dec 09	17	18	NA	35	44	12	84
Dec 10	37	32			42	10	82
Dec 11	48	26			35	11	76
Dec 12	51	22			42	14	89

[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 facilities-based wireless providers on a state-by-state basis. Facilities-based wireless providers serve subscribers using electromagnetic spectrum that they are licensed to utilize or manage.[22] 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 10 shows wireless subscribership data for Illinois and for the nation as a whole (reported biannually to the FCC). In December of 2011, mobile wireless providers reported approximately 12.7 million subscribers in Illinois, the largest such figure to date.

[22] FCC, Local Telephone Competition: Status as of December 31, 2001, Released July 2002, at 1-2.

Table 10: Mobile Wireless Subscribers (Millions)[23]

	Total US Subscribers	*Total IL Subscribers*
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

[23] Source: Federal Communications Commission, Industry Analysis and Technology Division, Wireline Competition Bureau, Local Telephone Competition: Status as of December 31, 2011, Released January 2013. 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. Section 13-407 effectively uses the terms "high speed" and "broadband" communications interchangeably, and the Commission adopts that convention in this Report. As defined herein, such high-speed telecommunications services provide the subscriber with data transmission at speeds in excess of 200 kilobits per second (kbps) in at least one direction.[24] This definition matches the definition of "advanced telecommunications services" as used in the PUA.

Information concerning high-speed service provisioning is reported by state to the FCC only by facilities-based providers of high-speed lines. Carriers do not report high-speed capable lines that are obtained from other carriers for resale to end users or Internet Service providers (ISPs). This practice ensures that each high-speed line is reported only once by the underlying provider.[25] 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 "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, (terrestrial) fixed wireless, and mobile wireless technologies.[26]

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[24] 220 ILCS 5/13-517

[25] 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.

[26] Services provided over technologies in the "other" category vary greatly in quality, speed, and price. These technologies, with the exception of mobile wireless technology, commonly are 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.

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

ADSL Technology

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 though 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.[27]

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

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

> "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 dedicated link between the provider and each home, as does DSL technology.[28]

B. Statewide High-Speed Line Subscribership in Illinois

Table 11 shows high-speed line counts nationwide and in Illinois, as reported biannually to the FCC. This table indicates that nationwide and in Illinois there has been substantial growth in high-speed telecommunications lines. The reported count of nearly 10.1 million high speed lines in Illinois (as of June 2012) significantly exceeds the estimated count of approximately 8.6 million retail wireline telephone lines (as of June 2011).

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

Table 11: High-Speed Lines

(Thousands)[29]

	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

Table 12 displays high-speed line counts in Illinois by technology. At year-end 2012, 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.

[29] Source: Federal Communications Commission, Industry Analysis and Technology Division, Wireline Competition Bureau, Internet Access Services: Status as of June 30, 2012, Released May 2013. Line counts for periods before June 2005 include only lines provided by large providers (those with over 250 lines in a state).

Table 12: Illinois High-Speed Connections by Technology

June 30, 2012

(Thousands) [30]

ADSL	Cable Modem	Mobile Wireless	Other	Total
1,519	1,936	6,504	126	10,085

Table 13 shows high-speed percentages by download speed in Illinois.

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Table 13: Illinois Percentage of High-Speed Connections by Download Speed

June 30, 2012 [31]

% over 200 kbps Downstream and Upstream	% at least 768 kbps Downstream and over 200 kbps Upstream	% at least 3 mbps Downstream and over 200 kbps Upstream	% at least 6 mbps Downstream and over 200 kbps Upstream	% at least 10 mbps Downstream and over 200 kbps Upstream
96.2	83.5	63.4	34.1	19.7

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 Map[32], maintained through a joint effort of the FCC and National Telecommunications and Information Administration ("NTIA"), publishes certain of the information collected by PCI. Table 14, below, provides broadband deployment data by ILEC service area taken from the National Broadband Map.

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[30] Source: Federal Communications Commission, Industry Analysis and Technology Division, Wireline Competition Bureau, Internet Access Services: Status as of June 30, 2012, Released May 2013.

[31] Source: Federal Communications Commission, Industry Analysis and Technology Division, Wireline Competition Bureau, Internet Access Services: Status as of June 30, 2012, Released May 2013.

[32] See http://www.broadbandmap.gov/.

Table 14: Broadband Deployment in ILEC Service Areas

(Data as of June 30, 2012)

ILEC Service Area	*% of Population with Access to Download Speeds > 0.769 Mbps and Upload Speeds > 0.2 Mbps*	*% of Population with 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	99.6%	98.2%	89.5%	87.6%	99.0%	20.5%
Statewide	99.9%	98.8%	91.7%	90.3%	99.9%	0.8%
Adams Telephone Cooperative	99.1%	65.8%	90.7%	2.3%	97.2%	53.0%
Alhambra - Grantfork Telephone Company	100.0%	100%	87.6%	49.9%	99.9%	31.6%
Cambridge Telephone Company	100.0%	95.3%	21.3%	67.6%	100%	0.0%
Cass Telephone Company	99.9%	97.1%	92.3%	60.5%	99.0%	0.0%
Clarksville Mutual Telephone Company	100.0%	57.6%	4.5%	9.6%	100.0%	0.0%
C-R Telephone Company	100.0%	97.8%	64.8%	51.9%	98.0%	0.0%
Crossville Telephone Company	100.0%	95.2%	86.4%	52.9%	100.0%	0.0%
Egyptian Telephone Cooperative Association	99.3%	98.6%	95.7%	3.1%	92.6%	0.0%
El Paso Telephone Company	100.0%	94.2%	81.8%	58.9%	100.0%	0.0%
Flat Rock Telephone Cooperate, Inc.	100.0%	98.9%	97.7%	11.8%	100.0%	0.0%
Citizens Telephone Company of Illinois	99.4%	82.0%	81.0%	52.4%	98.7%	5.3%
Frontier Communications of Depue, Inc.	100.0%	99.5%	95.1%	16.1%	100.0%	0.0%
Frontier Communications of Illinois, Inc.	100.0%	95.2%	89.6%	63.4%	100.0%	0.0%
Frontier Communications of Lakeside, Inc.	100.0%	96.1%	41.5%	0.7%	100.0%	0.0%
Frontier Communications - Midland, Inc.	98.1%	72.2%	67.6%	18.0%	90.8%	0.0%
Frontier Communications of Mt. Pulaski, Inc.	100.0%	87.0%	92.5%	44.4%	100.0%	0.0%
Frontier Communications of Orion, Inc.	100.0%	99.0%	87.0%	77.3%	100.0%	0.0%
Frontier Communications - Prairie, Inc.	100.0%	99.8%	81.7%	52.7%	100.0%	0.0%
Frontier Communications - Schuyler, Inc.	98.3%	83.0%	63.9%	53.5%	98.3%	0.0%
Frontier Communications of the Carolinas Inc.	99.9%	95.8%	69.4%	66.3%	99.9%	0.0%
Frontier North	99.7%	95.9%	76.6%	78.2%	99.6%	4.3%
Frontier North (Contel)	99.9%	96.6%	69.4%	76.6%	99.9%	0.1%
Gallatin River Communications	100.0%	97.8%	95.23%	84.9%	99.9%	0.1%
Geneseo Telephone Company	100.0%	99.9%	91.7%	85.2%	100.0%	0.0%
Glasford Telephone Company	99.0%	94.1%	96.5%	63.5%	97.9%	0.0%
Grafton Telephone Company	97.4%	96.1%	78.9%	0.0%	76.2%	91.8%

Table 14: Broadband Deployment in ILEC Service Areas (Continued)

(Data as of June 30, 2012)

ILEC Service Area	*% of Population with Access to Download Speeds > 0.769 Mbps and Upload Speeds > 0.2 Mbps*	*% of Population with 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	99.6%	98.2%	89.5%	87.6%	99.0%	20.5%
Statewide	99.9%	98.8%	91.7%	90.3%	99.9%	0.8%
Grandview Mutual Telephone Company	100.0%	64.2%	5.2%	0.0%	100.0%	0.0%
Gridley Telephone Company	100.0%	100.0%	99.2%	9.0%	100.0%	0.0%
Hamilton County Telephone Cooperative	99.5%	73.5%	93.8%	8.5%	95.1%	0.0%
Harrisonville Telephone Company	100.0%	99.9%	98.2%	70.8%	99.5%	12.4%
Henry County Telephone Company	100.0%	97.3%	88.2%	67.5%	100.0%	0.0%
Home Telephone Company	100.0%	100.0%	12.5%	65.6%	100.0%	87.0%
Illinois Bell Telephone Company	100.0%	99.9%	94.7%	94.6%	100.0%	0.1%
Illinois Consolidated Telephone Company	100.0%	95.8%	89.9%	76.7%	100.0%	0.4%
Kinsman Mutual Telephone Company	100.0%	100.0%	3.6%	0.0%	100.0%	0.0%
La Harpe Telephone Company	99.5%	95.8%	95.4%	60.0%	99.1%	0.8%
Leaf River Telephone Company	100.0%	86.9%	81.9%	20.9%	100.0%	0.0%
Leonore Mutual Telephone Company	100.0%	100.0%	100.0%	0.0%	100.0%	0.0%
Madison Telephone Company	100.0%	100.0%	99.4%	97.0%	99.3%	0.0%
Marseilles Telephone Company	100.0%	100.0%	99.1%	88.1%	100.0%	2.2%
McDonough Telephone Cooperative	100.0%	95.8%	95.5%	32.5%	99.5%	30.3%
McNabb Telephone Company	100.0%	91.2%	100%	0.0%	97.6%	0.0%
Metamora Telephone Company	100.0%	100.0%	99.8%	93.1%	99.5%	0.2%
Mid Century Telephone Cooperative, Inc.	100.0%	69.3%	93.4%	30.1%	99.7%	0.7%
Montrose Mutual Telephone Company	100.0%	96.5%	93.4%	0.4%	100.0%	0.0%
Moultrie Independent Telephone Company	100.0%	100.0%	99.9%	0.0%	100.0%	0.0%
New Windsor Telephone Company	100.0%	98.7%	100.0%	0.9%	100.0%	95.0%
Odin Telephone Exchange	100.0%	89.4%	67.1%	46.7%	99.7%	0.4%
Oneida Telephone Exchange	100.0%	100.0%	8.5%	0.0%	100.0%	96.4%
Reynolds Telephone Company	99.3%	91.3%	92.1%	55.5%	98.6%	0.0%
Shawnee Telephone Company	98.8%	96.7%	43.1%	7.5%	62.6%	57.7%
Stelle Telephone Company	100.0%	99.2%	46.5%	1.2%	100.0%	0.0%
Tonica Telephone Company	98.5%	95.0%	95.1%	66.1%	95.0%	0.0%
Viola Home Telephone Company	100.0%	87.0%	92.9%	69.2%	100.0%	6.2%
Wabash Telephone Cooperative, Inc.	99.8%	67.8%	90.0%	11.7%	97.2%	0.0%
Woodhull Telephone Company	100.0%	99.6%	99.2%	13.4%	100.0%	2.2%

[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.

In addition to summary broadband information, the PCI website contains broadband service provider information down to the household level. PCI's website allows Illinois residents to input their address information and obtain lists of broadband providers that report providing service in the resident's area and

contact information for these providers. The current results of PCI's efforts are available at http://www.broadbandillinois.org/maps/index.html.

D. Illinois Broadband Projects (Federal and State Support)

i. ARRA Projects

The American Recovery and Reinvestment Act ("ARRA") provided the NTIA and the U.S. Department of Agriculture's Rural Utilities Service ("RUS") with $7.2 billion to expand access to broadband services in the United States. Several projects in Illinois were awarded grants and/or loans to support the deployment of broadband infrastructure, enhance and expand public computer centers, and encourage sustainable adoption of broadband service. In many instances, the State of Illinois, through the Department of Commerce and Economic Opportunity (DCEO) offered additional support for these Illinois projects. Excluding nationwide grants and/or loans without an Illinois specific allocation, Illinois was awarded approximately $240 million in ARRA broadband funding. A summary of these projects is listed below.[33]

Infrastructure Projects

Board of Trustees of the University of Illinois
Federal Award $22,534,776
State Award $3,500,000

The Urbana-Champaign Big Broadband project plans to construct 187 miles of fiber-optic broadband network to provide high-speed connectivity to area community anchor institutions and support fiber-to-the-home services in four low-income neighborhoods. Known as a leader in computer networking technology, the University of Illinois plans to bring its experience to bear as it works to close the digital divide in Urbana-Champaign. The project will directly connect 143 anchor institutions, including 40 K-12 schools, 17 social service agencies, 14 healthcare facilities, nine youth centers, four public library systems, and two higher education institutions. A majority of these institutions expect to receive their first high-speed Internet connection via this project. The project proposes to create a fiber-to-the-home pilot project for 2,500 low-income households to purchase an affordable high-speed Internet service plan from commercial providers. In addition, the project expects to spur affordable broadband Internet access for local consumers, including up to 50,000 households and 3,700

[33] The project descriptions are from National Telecommunications and Information Administration, U.S. Department of Commerce site http://www2.ntia.doc.gov/illinois and United States Department of Agriculture, Broadband Initiatives Program | Awards Report, "Advancing Broadband - A Foundation for Strong Rural Communities", released January, 2011.

businesses, by enabling local Internet service providers to connect to the project's open network.

DeKalb County Government
Federal Grant $11,864,164
State Grant $1,305,000

The DeKalb Advancement of Technology Authority (DATA) Broadband project, a partnership between the DeKalb County Government, Northern Illinois University, and DeKalb Fiber Optic, plans to deploy a 130-mile fiber-optic network across DeKalb County and northern LaSalle County. The project is targeted to reach areas with a demonstrated need for high-speed, low-cost broadband access. The project expects to provide high-speed Internet connections between 10 Mbps to 10 Gbps to at least 60 anchor institutions, such as schools, hospitals, libraries, public safety entities, and numerous government agencies. The project will also enable broadband providers to interconnect with these facilities to provide broadband to households and businesses in unserved and underserved communities. The project design includes five networks overlaid on the fiber optic system— each network will be designed to meet the needs of a specific community: education and libraries, healthcare, the farming community, government and emergency services, and business and economic development.

Delta Communications, dba Clearwave Communications
Federal Grant $31,515,253
State Grant $11,351,250

Delta Communications plans to deploy a high-speed fiber middle mile network across a 23-county region of southern Illinois to address the lack of adequate broadband access for community anchor institutions in many of the region's rural, economically distressed communities. The project plans to double Delta's network size by constructing 740 new miles of fiber in the proposed service area. The project will directly connect 232 community anchor institutions with speeds between 10 Mbps and 1 Gbps, including 111 K-12 public schools, 28 public safety entities, 23 libraries, nine community colleges, Southern Illinois University, and 60 healthcare facilities. The network plans to offer points of interconnection for last-mile providers in all 31 communities in the proposed service area.

Illinois Department of Central Management Services
Federal Grant $61,895,282
State Grant $30,000,000

The Illinois Department of Central Management Services plans to deploy a high-speed fiber middle mile network across a 55-county region of northeastern, central, and eastern Illinois to address a lack of suitable broadband access for community anchor institutions in many of the region's rural, economically distressed counties. The Illinois Broadband Opportunity Partnership project plans

to construct more than 1,000 miles of new fiber while upgrading just over 1,000 miles of the state's existing education network, Illinois Century Network (ICN), which provides a gateway to advanced online applications for K-12 schools, libraries, and non-research higher education institutions. The project also proposes to interconnect with two round one BTOP awardees: DeKalb county's DeKalb Advancement of Technology Authority Broadband project and University of Illinois Board of Trustees' Urbana-Champaign Big Broadband project.

Northern Illinois University
Federal Grant $46,114,026
State Grant $14,000,000

Many community anchor institutions like libraries, K-12 schools, and community colleges in northwestern Illinois face limited broadband capacity, speeds, and service offerings, inhibiting the ability to serve their communities. To address this situation, Northern Illinois University is proposing to deploy an 870-mile network across a nine-county region including Jo Daviess, Stephenson, Winnebago, Boone, Carroll, Lee, Whiteside, Ogle, and LaSalle, significantly leveraging broadband technology for improvements in rural education, economic opportunities, and public safety.

University Corporation for Advanced Internet Development
Federal Grant $1,525,370 (Illinois Portion)

As part of a longstanding project to connect essential community anchor institutions across the country, and facilitate closer collaboration and long-term benefits for education, research, healthcare, public safety, and government services, the University Corporation for Advanced Internet Development (UCAID) proposes a comprehensive 50-state network benefitting approximately 121,000 community anchors. The project proposes a large-scale, public-private partnership to interconnect more than 30 existing research and education networks, creating a dedicated 100-200 Gbps nationwide fiber backbone with 3.2 terabits per second (TBps) total capacity that would enable advanced networking features such as IPv6 and video multicasting. The project plans to connect community anchors across all disciplines into virtual communities with shared goals and objectives, including colleges, universities, libraries, major veterans and other health care facilities, and public safety entities, with additional benefits to tribes, vulnerable populations, and government entities.

Wireless/Last Mile Projects

Cellular Properties, Inc. - Eastern Illinois Broadband Deployment
Federal Loan $6,132,260
Federal Grant $6,132,260

State Grant $1,000,000

Cellular Properties, Inc. (CPI) will upgrade an existing wireless network to 3G wireless to provide mobile and fixed wireless broadband to extremely rural and predominantly underserved areas of east central Illinois. The project will deploy FTTT where economically feasible to provide an eventual migration path to 4G/LTE. Initially, the 3G network will offer speeds of 7.2 Mbps downstream and 3.6 Mbps upstream. The three PFSAs (proposed funded service areas) are 99 percent rural and cover 11 counties and 36 communities. The communities include 26,605 households, 7,123 businesses, and 704 anchor institutions. CPI will upgrade to a 3G network through an overlay on existing cell sites, coupled with a build of new cell sites. The PFSAs constitute 48 of the 100 towers CPI plans to construct or upgrade to a 3G universal mobile telecommunications system.

Convergence Technologies, Inc. - CTI Rural Open Access WiMAX Network
Federal Loan $1,434,375
Federal Grant $4,303,125
State Grant $700,000

Convergence Technologies, Inc. will offer last-mile wireless broadband and VoIP in Cook, Kankakee, and Will counties in Illinois and Lake, Newton, and Porter counties in Indiana. The project will utilize WiMAX technology as a platform to deliver broadband service speeds of up to 11 Mbps. The network will make services available to 43,755 households, 9,497 businesses, and 3 anchor institutions.

Norlight, Inc. - Illinois VDB Network Expansion Last Mile
Federal Loan $3,311,324
Federal Grant $7,726,423
State Grant $450,000

Norlight, Inc. will implement the Illinois VDB (Virtual Dynamic Backbone) Network Expansion project to provide a wireless network to 13 unserved and underserved areas in central Illinois. This fixed wireless deployment will consist of a network of 72 towers providing highspeed broadband of greater than 5 Mbps. Counties covered include all or parts of Bond, Calhoun, Cass, Christian, Fayette, Greene, Jersey, Macoupin, Montgomery, Morgan, Pike, Scott, and Shelby. The network will make services available to 75,253 households, 9,737 businesses, and 804 anchor institutions.

Shawnee Telephone Company - Shawnee's FTTH Project: Focused Economic Revitalization and Sustainable Transformation of Southern Illinois

Federal Loan $6,249,989
Federal Grant $1,102,940
State Grant $1,000,000

Shawnee Telephone Company will deploy an FTTH network capable of 1 Gbps broadband service speeds in PFSAs that rank among the lowest in per household income and the highest in unemployment in southern Illinois. The network will make services available to 1,209 households, 438 businesses, and 35 anchor institutions.

Utopian Wireless Corporation - Utopian Bushnell WiMAX Project
Federal Loan $66,091
Federal Grant $198,271

Utopian Wireless Corporation will provide 4G wireless broadband service to underserved communities near Bushnell. The PFSA is rural and covers approximately 1,481 households, 102 businesses, and 32 anchor institutions. Utopian will deploy a broadband wireless system that features Motorola Mobile WiMAX technology for efficient air interface optimized for IP, built-in support for advanced antenna technologies like MIMO, and quality-of-service controls that enable differentiated services and open access. The system includes WiMAX access points, wireless and wired backhaul, ASN-GW, CSN, and an IP core that supports authentication and traffic routing to application servers and the Internet. Utopian will offer tiered services with average minimum downlink speeds of at least 1.8 Mbps.

Utopian Wireless Corporation - Utopian Cairo WiMAX Project
Federal Loan $68,686
Federal Grant $206,055

The Utopian Cairo WiMAX project will make available advanced 4G wireless broadband service to underserved communities in and around Cairo. The PFSA includes the 62914 ZIP code area in Alexander County, where Cairo is the county seat. The PFSA is rural and covers approximately 1,746 households, 87 businesses, and 43 anchor institutions. Using licensed 2.5 GHz spectrum, Utopian will deploy a broadband wireless system that features Motorola Mobile WiMAX technology, which offers several advantages over other wireless technologies, including a highly efficient air interface optimized for IP, built-in support for advanced antenna technologies like MIMO, and quality-of-service controls that enable differentiated services and open access.

Utopian Wireless Corporation - Utopian Flora WiMAX Project
Federal Loan $129,714
Federal Grant $389,141

Utopian Wireless Corporation will provide 4G wireless broadband service to underserved communities near Flora. The rural PFSA covers approximately 2,791 households, 276 businesses, and 86 anchor institutions. Utopian will deploy a broadband wireless system that features Motorola Mobile WiMAX technology for efficient air interface optimized for IP, built-in support for advanced antenna technologies like MIMO, and quality-of-service controls that enable differentiated services and open access. The system includes WiMAX access points, wireless and wired backhaul, ASN-GW, CSN, and an IP core that supports traffic authentication and routing to application servers and the Internet. Utopian will offer tiered services with average minimum downlink speeds of at least 1.8 Mbps. Utopian will hire full-time local staff in the PFSA, including up to three sales people to prepare for launch.

Utopian Wireless Corporation - Utopian Monmouth WiMAX Project
Federal Loan $150,063
Federal Grant $450,189

The Utopian Monmouth WiMAX project will make available advanced 4G wireless broadband service to underserved communities in the Monmouth area. The PFSA includes the 61462 ZIP code area in Warren County, where Monmouth is the county seat. The PFSA covers 4,419 households, 290 businesses, and 95 anchor institutions. Using licensed 2.5 GHz spectrum, Utopian Wireless Corporation will deploy a broadband wireless system that features Motorola Mobile WiMAX technology. The average minimum downlink speeds for Utopian Wireless subscribers will be at least 1.8 Mbps.

Utopian Wireless Corporation - Utopian White Hall WiMAX Project
Federal Loan $63,594
Federal Grant $190,780

The Utopian White Hall WiMAX project will make available advanced 4G wireless broadband service to underserved communities in and around White Hall. The PFSA includes the 62092 ZIP code area in Greene County. The PFSA is rural and covers 1,224 households, 147 businesses, and 36 anchor institutions. Utilizing licensed 2.5 GHz spectrum, Utopian will deploy a broadband wireless system that features Motorola Mobile WiMAX technology. WiMAX offers a number of advantages over other wireless technologies, including a highly efficient air interface optimized for IP, built-in support for advanced antenna technologies like MIMO, and quality-of-service controls that enable differentiated services and open access.

Sustainable Adoption Projects

City of Chicago
Federal Grant $7,074,369
State Grant $677,476

The SmartChicago Sustainable Broadband Adoption program intends to spur economic development in five disadvantaged neighborhoods in Chicago with a comprehensive broadband awareness and adoption program that will include providing computers and training opportunities to more than 11,000 residents and 500 small businesses and not-for-profits. The project intends to create public computer centers at six community centers for working families and expand workstation capacity at four Business Resource Centers, as well as provide 1,500 residents and small businesses who complete a multi-session training course with laptops and netbooks. SmartChicago plans to conduct a citywide multilingual broadband awareness campaign that will reach an estimated 200,000 residents, including ads on radio, TV, print, and city buses; outreach by local community organizations in each neighborhood; and the creation of neighborhood-based Web portals.

Communication Service for the Deaf, Inc.
Federal Grant $468,396 (Illinois Portion)

Broadband's ability to expand educational and employment opportunities is especially meaningful for Americans who are deaf or hard of hearing, a community that faces unique challenges in education and that suffers from a rate of unemployment much higher than the national average. Communication Service for the Deaf, Inc. (CSD) intends to expand broadband adoption among people who are deaf and hard of hearing and provide them with online tools to more fully participate in the digital economy. The project proposes to employ a combination of discounted broadband service and specialized computers, technology training from an online state-of-the art support center customized to the community's needs, public access to videophones at anchor institutions from coast to coast, and a nationwide outreach initiative. Thousands will gain online access to all the Internet has to offer, including sign language interpreters, captioned video services, and other content and functionalities designed especially to advance their educational, employment, and healthcare interests.

MyWay Village, Inc.
Federal Grant $4,731,442
State Grant $1,206,550

According to a recent survey, fewer than one in twenty residents in low-income elder-care facilities in northern Illinois, use broadband services despite the demonstrated appeal for staying in touch with distant family, accessing social

and government services, and improving quality of life. MyWay Village, in partnership with the Illinois Department of Commerce and Economic Opportunity and the Illinois Low Income Senior Internet Coalition, plans to transform its Connected Living Adoption and Sustainability Program, a longstanding program that ties technology, training, and technical support together in a way uniquely tailored for the senior community. Through both traditional and grassroots awareness efforts, the project plans to engage its 23 targeted senior housing communities to teach the basics of e-mail, Web access, and other practical broadband applications. The project also intends to collaborate with local Workforce Investment Act organizations to help seniors who develop their digital literacy skills to find part time work.

One Economy Corporation
Federal Grant $2,857,992 (Illinois Portion)

The 21st Century Information and Support Ecosystem project proposes to implement a comprehensive program of computer training, wireless Internet access, broadband awareness marketing, and online content and applications to residents of 159 affordable and public housing developments and low-income communities in 50 cities and towns across 31 states and the District of Columbia. The project plans to implement four principal programs: training 2,500 youth to become "Digital Connectors" who will then provide digital literacy training to others in their communities; deploying localized broadband networks in public housing developments; developing online content and applications aimed at low-income, low-literacy audiences.

Public Computer Center Projects

City of Chicago
Federal Grant $8,974,283
State Grant $1,573,812

According to a 2009 study commissioned by the City of Chicago, as many as 40 percent of city residents lack home broadband access, making libraries and other public computer centers essential resources for employment, training, and educational opportunities. Over 60 percent of Chicago libraries now report average wait times for a computer of three hours or longer. The SmartChicago Public Computer Centers project proposes a wide-scale upgrade and expansion of workstation capacity at more than 150 locations, including city libraries, community colleges, public housing sites, workforce centers, senior centers, after-school programs, and other community locations throughout Chicago. The project will provide hundreds of thousands of hours of training, including digital literacy instruction and assistance for job seekers. The project plans a specific focus on low-income residents, at-risk youth, senior citizens, people with disabilities, and the unemployed.

Satellite Grant Program

Hughes Network Systems and WildBlue Communications
Federal Grant $100,000,000 (Nationwide)

The Satellite Grant Program made $100 million available through four broadband satellite providers (EchoStar XI and Spacenet, Inc. were included in the above grant program, but provided funding to serve regions that do not include Illinois) to connect rural premises left unserved by other technologies. These broadband satellite providers are expected to reach nearly 424,000 premises and 10,000 commercial subscribers across the country. Through this funding, these subscribers will receive broadband satellite premises equipment, installation, and activation at no cost to them, as well as discounted service for at least 1 year.

Additional information on several of these projects can be found at http://www.broadbandillinois.org/Projects.html.

ii. Mobility Fund Projects

In its USF/ICC Transformation Order, the FCC comprehensively reformed and modernized the universal service system to help ensure the universal availability of fixed and mobile communication networks capable of providing voice and broadband services where people live, work, and travel. For the first time, the Commission established a universal service support mechanism dedicated exclusively to mobile services – the Mobility Fund. Phase I of the Mobility Fund provides one-time support to address gaps in mobile services by supporting the build-out of current-and next-generation mobile networks in areas where these networks are unavailable. Illinois was awarded approximately $3.5 million in Mobility Phase I universal service support. A summary of the funding for these projects is listed below.[34]

USCOC of Central Illinois, LLC – Calhoun County
Federal Grant $556,115.62
Unserved[35] Road Miles 27.29

USCOC of Central Illinois, LLC – Greene County
Federal Grant $976,752.84
Unserved Road Miles 50.26

USCOC of Central Illinois, LLC – Jersey County
Federal Grant $1,310,118.48
Unserved Road Miles 59.79

[34] The project descriptions are from the FCC Public Notice entitled "Mobility Fund Phase I Auction Closes, Winning Bidders Announced for Auction 901, released October 3, 2012.
[35] Areas without 3G or better services are considered "unserved."

USCOC of Central Illinois, LLC – Pike County
Federal Grant $738,773.76
Unserved Road Miles 113.17

iii. Broadband Adoption Lifeline Pilot Program Projects

In its Lifeline Reform Order, the FCC created a Pilot Program to gather high-quality data that will help identify effective approaches to increasing broadband adoption and retention by low-income consumers. The FCC authorized subsidies to be disbursed directly to eligible telecommunications carriers for up to 12 months of subsidized broadband service delivered either as a standalone service or as part of a bundle of voice and broadband services. Illinois was awarded up to $1,514,284 in Broadband Adoption Lifeline Pilot Program funding. Summaries of the funded projects are provided below.[36]

Partnership for a Connected Illinois Project

The Partnership for a Connected Illinois Project, comprised of Adams Telephone Cooperative, Cass Telephone Company, Harrisonville Telephone Company, Madison Telephone Company, Mid-Century Telephone Cooperative, Shawnee Telephone Company, and Wabash Telephone Cooperative, in partnership with Connected Living, Inc., Citizens Utility Board, and John B. Horrigan, will focus on studying the impact of digital literacy on adoption among the member ETCs by tracking usage and retention of service during the 12 month pilot to determine if such training helps subscribers overcome adoption hurdles (e.g., relevance, privacy concerns). This project will test the impact of digital literacy by offering one group of subscribers a flat rate $30 subsidy for 12 months off each of the ETCs' broadband plans that are priced based on speed, as well as intensive digital literacy training, and a second group of subscribers will receive the same $30 subsidy but will not receive an offer for digital literacy training. The project will also study the choices subscribers make in determining speeds because they will be allowed to choose from speed packages offered by each participating ETC. Lifeline support will not exceed $1,514,284, and includes reimbursement for non-recurring fees for each ETC.

iv. Illinois Broadband Innovation Fund Projects

The Small Business Administration allocated funds to the Partnership for a Connected Illinois for the development and implementation of a plan, in collaboration with the Department of Commerce and Economic Opportunity, to increase computer adoption and usage across Illinois. PCI awarded $500,000 in

[36] The project description is from the FCC Order in WC Docket No. 11-42, released December 19, 2012.

Illinois Broadband Innovation Fund funding to 14 Illinois projects. A summary of funded projects is listed below.[37]

Carlinville School District

Students in Carlinville School District will preserve and digitally produce the stories of local veterans. Personal interviews will capture the experience of veterans and students will use digital technologies to preserve stories, in cooperation with the U.S. Library of Congress' Veterans History Project and the Illinois State Library.

City of Monmouth

The City of Monmouth will design, develop and deploy a "virtual museum" web application that will allow local students to create and "curate" online exhibits and provide opportunities for county residents to utilize broadband to explore and interact with the living history of their region.

Dot World Group

Dot World Group will provide opportunities for small, community-oriented businesses to expand the successful Southern Illinois-based "Escape Locally" economic development program to a statewide audience.

Eastern Illinois University Business Solutions

The solutions center will create the Prairie Spark E-Hub – a digital resource center filled with essential information and tools for entrepreneurs, students and youth mentors to "grow our own" businesses and jobs. The Ehub will be accessible 24/7, expanding the number of youth and entrepreneurs served.

Family Christian Health Center

Family Christian Health Center will improve care coordination for the medically underserved residing in south suburban Cook County by creating and maintaining a broadband-enabled web portal that connects patients and the community at large to an online database of community resources.

Fishin' Buddies

Fishin' Buddies will leverage high speed internet access to enhance the use of outdoor public facilities. Three key components include: a web application that will catalog all of the native and invasive plant and animal species found in the

[37] The project descriptions are from PCI Announcement Slides found at http://www.broadbandillinois.org/Use-it/Innovation.html.

local Cook County Forest Preserve, a mobile research center, and training for small business owners.

Integrated Therapy Services

The vision at Integrated Therapy Services is to utilize broadband to connect families with special needs in rural, agricultural southeastern Illinois with a variety of resources that are available statewide and nationally in order to improve the development, daily functioning, quality of life, and community involvement of children and families with special needs.

Lake Land College

This project proposes to expand upon the Connecting Generations project piloted at the Helen Matthes Library in Effingham. A collaborative partnership involving the library, Effingham County Senior Center, University of Illinois Extension office, East Central Illinois Development Corporation (ECIDC), and four area high schools.

Metropolitan Chicago Healthcare Council

MCHC's pilot project will enable psychiatrists at the University of Illinois Hospital and Health Sciences System (UI Health System) and other psychiatrists to provide 24/7 tele-psychiatry services to rural hospitals throughout the state.

Midland Institute for Entrepreneurship

The Midland Institute for Entrepreneurship's CEO (Creating Entrepreneurial Opportunities) class prepares high-school students in rural Illinois to become self-reliant, enterprising individuals with the skills to start businesses and contribute to the economic development of their communities. Students will focus on creative uses of technologies and broadband access.

MTC Communications, Inc.

MTC has proposed to connect the Western Illinois University agricultural facilities with high speed fiber as part of its Illinois Gigabit Communities Challenge grant proposal. In addition to the WIU Agricultural facilities, MTC is also proposing to connect the recently funded WIU Wind Turbine Project to the same fiber.

Six Mile Library

The Six Mile Regional Library District's Mobile Computer Training Opportunities project extends the benefits and value of broadband by taking training to neighborhoods. Envision hosting classes in local schools, park district and township locations throughout our service area. Class participants will learn

about specific online resources relating to eGovernment, healthcare, and job-seeking.

The House Development Corporation-21st Century Youth Project

The House Development Corporation---21st Century Youth Project will launch a web-based platform to enabling underserved students to access cutting-edge technical resources and relevant training youth. The program is designed in conjunction with college standards, enabling students to accrue college credits.

Tri-County

The commission is currently facilitating a transformative economic development planning process that encompasses Peoria, Tazewell, Woodford, and Mason Counties. Vision for using broadband in this project is to establish a regional broadband adoption effort that will include the development of a broadband connectivity strategy for the region.

v. Illinois Gigabit Communities Challenge Projects

The Illinois Gigabit Communities Challenge awards funding to the most promising ultra high-speed broadband deployment projects in Illinois as part of the comprehensive, multi-year Illinois Jobs Now! economic development program. Open to any private or public organization, the contest offers seed funding awards to build or expand world-class broadband networks in Illinois. $3 million in Illinois Gigabit Communities Challenge funding was awarded to two Illinois projects. A summary of funded projects is listed below.[38]

OnLight Aurora

OnLight Aurora will help connect the city of Aurora's fiber optic network to its education, business, and healthcare communities. It will help connect Aurora's robust, state-of-the-art fiber network to more than 12,000 end users, including students, nurses, business men and women, and residents. The state's investment will help provide connectivity to Aurora's public and private K-12 schools, higher education and healthcare institutions, commercial corridors and community anchors in underserved areas, and major non-profit organizations across the city.

Gigabit Squared

The state's investment will help support Gigabit Squared's Gigabit Neighborhood Gateway Program (GNGP) to create jobs, improve neighborhood safety, enhance education and improve health care services. In addition, the University

[38] The project descriptions included herein are taken from information that can be found at http://www2.illinois.gov/gov/gigabit/Pages/Status.aspx.

of Chicago is providing funding and committing to work with various organizations - community-based and philanthropic - to raise additional funding for this effort, which leverages a private commitment from Gigabit Squared's Gigabit Neighborhood Gateway Program and its investors. In its first phase, the project will bring world-class gigabit speed fiber to over 4,825 residents, businesses, schools, and healthcare institutions.

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.[39]

According to the market share information reported here, the CLEC overall wireline telephone market share increased between year-end 2011 and year-end 2012. At the same time, total reported wireline telephone lines in Illinois declined between year-end 2011 and year-end 2012 (as has occurred each year since year-end 2001). Some portion of the reduction in wireline telephone lines undoubtedly is attributable to the fact that substitutes for wireline telephone services are not reported as CLEC wireline telephone lines to the Commission. Many consumers are substituting mobile wireless phone service or unreported voice-over-internet-protocol ("VoIP") 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 several broad trends in competitive conditions in Illinois telephone markets. CLECs continue to increase reliance upon their own network facilities, rather than utilizing network facilities of the historic incumbent local exchange carriers. Cable television companies continue to adapt their video networks to successfully enter into Illinois telephony and broadband markets. Subscribership to both wireless and broadband services in Illinois continues to increase. And the available data are consistent with observations that local telephone competition generally is increasingly focused on offering bundled packages of voice telephone, high speed data and video services.

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[39] "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.

Recommendations for Legislative Action

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

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 divesture 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.[40]

There is considerable variation in size and demographic makeup among the Illinois LATAs.[41] Table 6 (above) lists size and demographic data for each of the 14 LATAs for which information is presented in this report. Table 6 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

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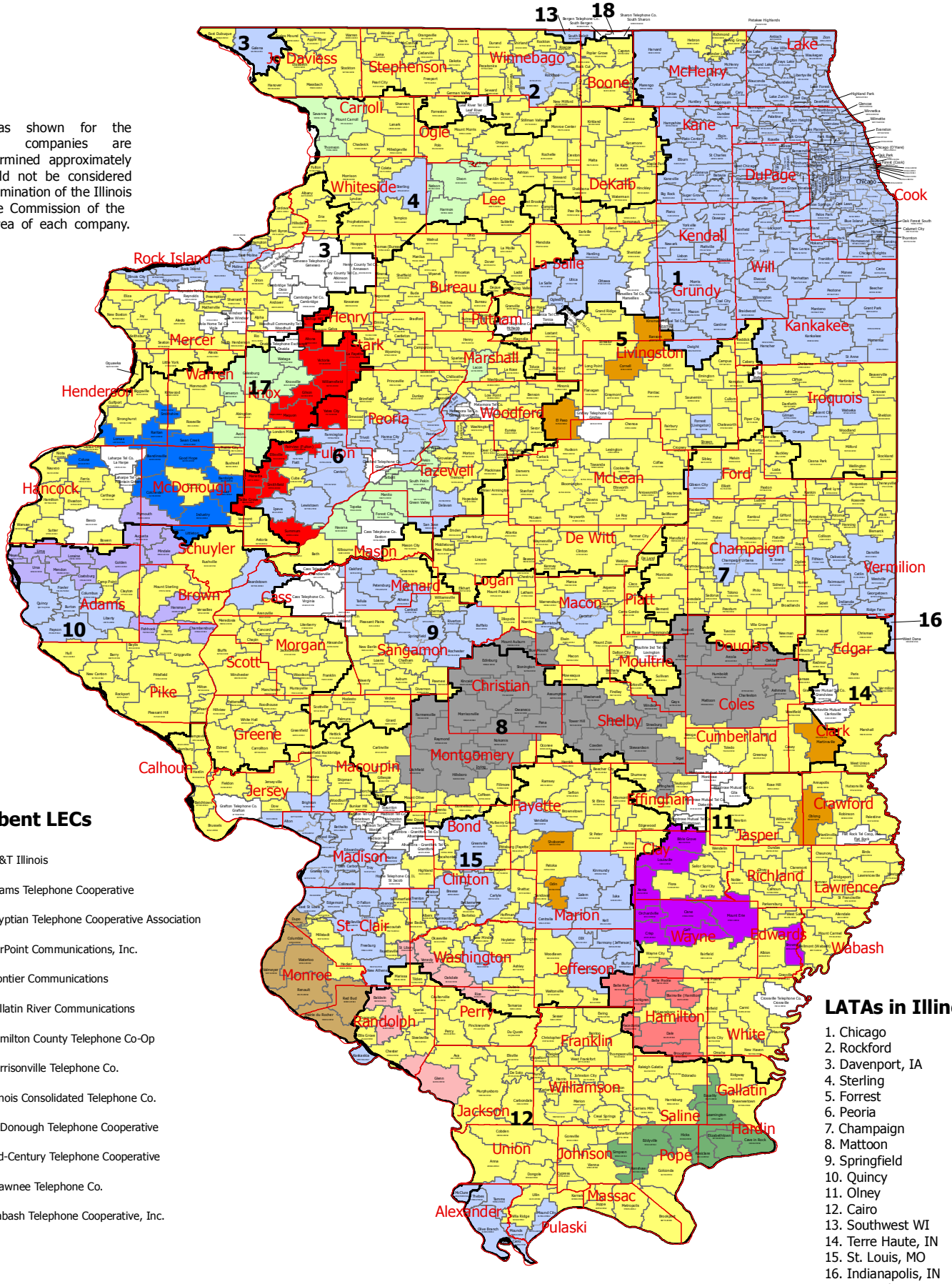
[40] Although LATA boundaries were created in order to delineate the geographical area within which BOCs could offer long distance services, other "LATA" boundaries have been created in order to segment non-BOC service territories. The LATA geography adopted here follows Telcordia Technologies, Inc.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

[41] 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 Cite 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 – B4 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 B4 reports estimated unreported residential retail E-911 lines by LATA.

Table B1 - Retail Wireline Telephone Provision by LATA
(December 31, 2012)

LATA	LATA Name	All LECs	All LEC Lines	ILECs	ILEC Lines	CLECs	CLEC Lines	CLEC Lines as % if Total
358	CHICAGO ILLINOIS	76	3,894,890	6	2,394,619	70	1,500,271	38.5%
360	ROCKFORD ILLINOIS[1]	41	148,849	4	84,522	37	64,327	43.2%
362	CAIRO ILLINOIS	30	86,745	4	72,201	26	14,544	16.8%
364	STERLING ILLINOIS	32	75,572	4	53,397	28	22,175	29.3%
366	FORREST ILLINOIS	25	96,445	4	70,215	21	26,230	27.2%
368	PEORIA ILLINOIS	39	167,856	7	117,066	32	50,790	30.3%
370	CHAMPAIGN ILLINOIS[2]	33	114,603	2	84,242	31	30,361	26.5%
374	SPRINGFIELD ILLINOIS	39	159,277	5	121,726	34	37,551	23.6%
376	QUINCY ILLINOIS	27	57,608	3	48,051	24	9,557	16.6%
520	ST LOUIS MISSOURI	46	274,158	9	199,867	37	74,291	27.1%
634	DAVENPORT IOWA	36	84,761	9	63,328	27	21,433	25.3%
976	MATTOON ILLINOIS	21	85,261	4	74,836	17	10,425	12.2%
977	MACOMB ILLINOIS	21	44,927	7	37,074	14	7,853	17.5%
978	OLNEY ILLINOIS	21	46,151	6	39,832	15	6,319	13.7%
	Statewide	129	5,337,103	40	3,460,976	89	1,876,127	35.2%

[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, 2012)

LATA	LATA Name	All LECs	All LEC Lines	ILECs	ILEC Lines	CLECs	CLEC Lines	CLEC Lines as % if Total
358	CHICAGO ILLINOIS	41	1,972,510	6	1,183,821	35	788,689	40.0%
360	ROCKFORD ILLINOIS[1]	21	87,453	4	49,542	17	37,911	43.4%
362	CAIRO ILLINOIS	18	54,066	4	45,847	14	8,219	15.2%
364	STERLING ILLINOIS	16	47,882	4	31,431	12	16,451	34.4%
366	FORREST ILLINOIS	10	58,267	4	40,960	6	17,307	29.7%
368	PEORIA ILLINOIS	22	101,735	7	68,054	15	33,681	33.1%
370	CHAMPAIGN ILLINOIS[2]	17	63,572	2	44,267	15	19,305	30.4%
374	SPRINGFIELD ILLINOIS	21	80,625	5	55,387	16	25,238	31.3%
376	QUINCY ILLINOIS	16	34,947	3	30,803	13	4,144	11.9%
520	ST LOUIS MISSOURI	29	179,684	9	128,611	20	51,073	28.4%
634	DAVENPORT IOWA	19	50,798	9	37,589	10	13,209	26.0%
976	MATTOON ILLINOIS	9	51,325	4	44,059	5	7,266	14.2%
977	MACOMB ILLINOIS	11	28,861	7	23,658	4	5,203	18.0%
978	OLNEY ILLINOIS	11	31,996	6	27,838	5	4,158	13.0%
	Statewide	93	2,843,721	40	1,811,867	53	1,031,854	36.3%

[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, 2012)

LATA	LATA Name	All LECs	All LEC Lines	ILECs	ILEC Lines	CLECs	CLEC Lines	CLEC Lines as % if Total
358	CHICAGO ILLINOIS	68	1,922,380	6	1,210,798	62	711,582	37.0%
360	ROCKFORD ILLINOIS[1]	37	61,396	4	34,980	33	26,416	43.0%
362	CAIRO ILLINOIS	25	32,679	4	26,354	21	6,325	19.4%
364	STERLING ILLINOIS	27	27,690	4	21,966	23	5,724	20.7%
366	FORREST ILLINOIS	22	38,178	4	29,255	18	8,923	23.4%
368	PEORIA ILLINOIS	34	66,121	7	49,012	27	17,109	25.9%
370	CHAMPAIGN ILLINOIS[2]	26	51,031	2	39,975	24	11,056	21.7%
374	SPRINGFIELD ILLINOIS	34	78,652	5	66,339	29	12,313	15.7%
376	QUINCY ILLINOIS	25	22,661	3	17,248	22	5,413	23.9%
520	ST LOUIS MISSOURI	42	94,474	9	71,256	33	23,218	24.6%
634	DAVENPORT IOWA	35	33,963	9	25,739	26	8,224	24.2%
976	MATTOON ILLINOIS	21	33,936	4	30,777	17	3,159	9.3%
977	MACOMB ILLINOIS	21	16,066	7	13,416	14	2,650	16.5%
978	OLNEY ILLINOIS	20	14,155	6	11,994	14	2,161	15.3%
	Statewide	121	2,493,382	40	1,649,109	81	844,273	33.9%

[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 B4 –Residential Retail Reported Lines and E-911 Listing by LATA

LATA	LATA Name	Reported Residential Retail Wireline Telephone Lines as of 12/31/12	Residential Retail E-911 Listings as of 12/31/12	Estimated Residential Retail E-911 Listings not Reported as Wireline Telephone Lines as of 12/31/12	Reported Residential Retail Wireline Telephone Lines Plus Estimated Unreported E-911 Listings as of 12/31/12	Reported Residential Retail Wireline Telephone Lines as of 12/31/01
358	CHICAGO ILLINOIS	1,972,510	1,366,266	0	1,972,510	3,645,807
360	ROCKFORD ILLINOIS[1]	87,453	87,938	485	87,938	161,890
364	STERLING ILLINOIS	47,882	47,253	0	47,882	89,546
368	PEORIA ILLINOIS	101,735	96,785	0	101,735	191,519
370	CHAMPAIGN ILLINOIS[2]	63,572	72,927	9,355	72,927	135,155
374	SPRINGFIELD ILLINOIS	80,625	67,827	0	80,625	151,539
376	QUINCY ILLINOIS	34,947	30,581	0	34,947	63,784
520	ST LOUIS MISSOURI	179,684	207,810	28,126	207,810	313,543
634	DAVENPORT IOWA	50,798	61,324	10,526	61,324	92,784
362	CAIRO ILLINOIS	54,066	67,351	13,285		
366	FORREST ILLINOIS	58,267	60,335	2,068		
976	MATTOON ILLINOIS	51,325	61,429	10,104	251,383*	411,824*
977	MACOMB ILLINOIS	28,861	25,607	0		
978	OLNEY ILLINOIS	31,996	33,407	1,411		
	Statewide	2,843,721	2,286,840	75,360	2,919,081	5,257,391

[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.

* Combined figures for the Cairo, Forrest, Mattoon, Macomb, and Olney LATAs.