



1 **Q. Please state your name and business address.**

2 A. My name is James A. Appleby. My business address is 6450 Sprint Parkway,  
3 Overland Park, Kansas 66251.

4 **Q. What is your position and which parties are you representing in this**  
5 **proceeding?**

6 A. I am employed as a Regulatory Policy Manager for Sprint Nextel Corporation. I am  
7 testifying on behalf of Sprint Communications Company, L.P., Sprint Spectrum, L.P.,  
8 Nextel West Corp., and NPCR, Inc. (collectively, "Sprint Nextel"). Sprint Nextel is a  
9 provider of wireline long distance service, wireless communications services and  
10 wholesale services to cable providers in Kentucky.

11 **Q. Please summarize your educational background and business experience.**

12 A. I hold a Bachelor of Science degree in accounting from Shippensburg University in  
13 the state of Pennsylvania. I became a Certified Public Accountant in Pennsylvania in  
14 1989. I have been employed by Sprint since 1989. I began working with Sprint's  
15 Regulatory Policy Group in 1996. In my current position as Regulatory Policy  
16 Manager, I am responsible for the development of state and federal regulatory and  
17 legislative policy for all divisions of Sprint Nextel Corporation. I am also responsible  
18 for the coordination of policy across business units. The specific policy issues that I  
19 address include, among other things, intercarrier compensation, universal service,  
20 pricing, access reform, reciprocal compensation and local competition.

21 **Q. Have you previously testified before other state Commissions?**

22 A. Yes. In my position I have also testified before the Public Service Commission of  
23 South Carolina, the Missouri Public Service Commission, the Indiana Utility

1 Regulatory Commission, the Michigan Public Service Commission, the New Jersey  
2 Board of Public Utilities, the Virginia State Corporation Commission, the Nebraska  
3 Public Service Commission, the Kansas Corporation Commission, the Iowa Utilities  
4 Board, the Illinois Commerce Commission, the Arizona Corporation Commission, the  
5 Minnesota Public Utilities Commission, the Washington Utilities and Transportation  
6 Commission and the Public Utility Commission of Oregon. Additionally, I have  
7 testified before state legislative committees, and I have also worked with the various  
8 state Commissions' staff and the Federal Communication Communication's ("FCC")  
9 staff.

### 11 **Purpose, Scope and Summary of Testimony**

#### 13 **Q. What is the purpose and scope of your testimony?**

14 A. My testimony will explain why the high intrastate switched access rates of the  
15 Kentucky incumbent local exchange carriers and competitive local exchange carriers  
16 are harmful to competition and consumers. My testimony explains why it is essential  
17 to the development of a fully competitive Kentucky telecommunications market that  
18 the prices for intrastate switched access<sup>1</sup> be reduced. In my testimony, I describe the  
19 relationship between high wholesale switched access rates and the price for all retail  
20 voice telecommunications services that require those access services as an essential  
21 input. My testimony also explains how the consumers of Kentucky will benefit from  
22 reductions in switched access charges. Finally, my testimony will provide Sprint  
23 Nextel's specific recommendation for intrastate access rate reductions and why local

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<sup>1</sup> To the extent that I use the term intrastate access, or simply access, I mean intrastate switched access.

1 exchange carriers no longer need access charges that are far above the actual cost of  
2 the functions provided.

3 **Q. Please summarize your testimony.**

4 A. Switched access is a monopoly service. All carriers that compete in the Kentucky  
5 retail market must use both incumbent and competitive local exchange carriers'  
6 intrastate switched access to terminate non-local calls to the carriers' customers. This  
7 includes traffic originated by wireless providers who are charged terminating access  
8 on wireless calls to landline customers when such calls cross Metropolitan Trading  
9 Area ("MTA") boundaries. Wireless carriers, however, do not collect access charges  
10 on toll calls received from local exchange carriers. Carriers cannot compete on an  
11 equal footing if some carriers are permitted to impose on their competitors input costs  
12 that are far above the actual cost of providing those functions. KRS 278.512 states the  
13 Legislative finding that the Commission is "authorized and encouraged" to set  
14 policies that consider the interests of consumers, the public, providers of  
15 telecommunications services and the continued availability of good  
16 telecommunications services within a changing environment.<sup>2</sup> In its regulation of  
17 intrastate switched access charges, Sprint believes the Commission should consider  
18 the impact inflated access charges have on the development of competition in the  
19 Commonwealth.

20 Access prices were historically inflated as a mechanism to subsidize the price of basic  
21 local service in a regulated monopoly setting. But this interplay between local service  
22 rates and intrastate access rates was established long before LECs developed the  
23 ability to generate revenues from numerous other services provisioned over the same

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<sup>2</sup> See KRS § 278.512(1)(c)

1 network on which they provide local exchange and exchange access services. ILECs  
2 either directly or through affiliated carriers now offer within their service territories  
3 wireline long distance, numerous new calling features, broadband and video services.  
4 These services are often bundled together to provide the consumer's complete service  
5 needs. The average revenue per customer that LECs collect continues to expand. The  
6 historic trend of retail revenue growth and the potential for further growth in the  
7 future makes the collection of overpriced access charges from competing carriers  
8 unnecessary and anti-competitive. The incremental revenues from the new services  
9 permit the LECs to cover all of their costs from their retail customers instead of  
10 collecting a portion of those costs from competitors by charging inflated rates for  
11 monopoly switched access. This change is essential to developing a level competitive  
12 playing field for all service providers. Doing so will help level the playing field for  
13 all competitors.

14 Sprint recommends that each LEC be required to set its intrastate switched access  
15 rates and structure for each individual access element equal to the equivalent  
16 interstate switched access rates and structure. This recommendation includes the  
17 elimination of the Non-Traffic Sensitive Revenue Requirement ("NTSRR") charges.

### 18

19 **The Kentucky Retail Market Has Changed in Recent Years**

20

21 **Q. How has Kentucky's retail telecommunications market changed in recent years?**

22 A. The retail telecommunications market in Kentucky like other parts of the United  
23 States has experienced significant change in recent years. Local exchange carriers

1 throughout the country are selling long distance services to their local exchange  
2 customer base either directly or through a separate affiliated company. Local  
3 exchange carriers (incumbent and competitive) and cable providers have augmented  
4 their existing networks to deliver broadband services to their customers. Cable  
5 providers have developed a voice product to compete with the local exchange  
6 carriers. Local exchange carriers have partnered with satellite video providers and/or  
7 deployed network capabilities to provide video services to their local exchange  
8 customer base. Both local exchange carriers and cable providers now package at least  
9 three services (including local voice, long distance, broadband and/or video services)  
10 in bundles. In the meantime, wireless carriers have expanded their networks to cover  
11 almost all of the population within the country.<sup>3</sup> Wireless carriers have deployed  
12 progressively faster mobile broadband networks to facilitate the delivery of many of  
13 the same applications customers use at home when they are on the go. Consumers are  
14 getting more and more choices for their telecommunications needs. But the  
15 Commission's regulation of intrastate access rates still reflects the bygone era of local  
16 monopolies and long distance providers operating in separate markets.

17 **Q. Has the traditional Long Distance market transitioned into something different?**

18 A. Yes. Significant market changes have greatly diminished the role of stand-alone long  
19 distance service providers. Customers no longer expect to purchase long distance as a  
20 separate product from another service provider other than their local service provider.

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<sup>3</sup> AT&T Wireless advertises covering 97% of the United States population. (See "AT&T Sets the Record Straight on Verizon Ads," <http://www.att.com/gen/press-room?pid=14002>) Verizon Wireless continued to invest in its broadband network, billing it as "the nation's largest and most reliable 3G [third generation] network." (see <http://aboutus.vzw.com/bestnetwork/overview.html>) Sprint currently has America's largest voice calling area of any carrier, reaching more than 307 million people in the U.S., Puerto Rico and U.S. Virgin Islands with a Sprint phone and plan that includes roaming. (see news release, March 17, 2010, [http://newsreleases.sprint.com/phoenix.zhtml?ID=1403426&c=127149&p=irol-newsArticle\\_newsroom](http://newsreleases.sprint.com/phoenix.zhtml?ID=1403426&c=127149&p=irol-newsArticle_newsroom)) See Exhibit JAA-8 to Appleby Direct Testimony in Case No. 2007-00503.

1 In fact, customers prefer the simplicity of flat rate calling for all of their voice  
2 communications needs. Each of the carrier groups described above offers these all-  
3 distance voice service packages. So each carrier group now competes for the long  
4 distance calling needs of customers. As such, each of those carriers is exposed to the  
5 high access rates of the Kentucky LECs.

6 **Q. Has the Commission previously limited other ILECs' switched access rates to**  
7 **foster competition in the toll market?**

8 A. Yes. This is one of the reasons the Commission provided for limiting AT&T  
9 Kentucky's ("AT&T")<sup>4</sup> intrastate switched access rates. Specifically the Commission  
10 wrote:

11 "To foster competition in the toll market, access charges  
12 may not exceed Federal Communications Commission  
13 ("FCC") interstate rates."<sup>5</sup>  
14

15 Subsequently, AT&T's NTSRR was eliminated.<sup>6</sup>

16 **Q. Has the evolution in the toll market described above changed the need to foster**  
17 **competition?**

18 A. No, in fact the need is more imperative. The providers of non-local calling have  
19 expanded to include other types of carriers beyond stand-alone IXC's. But each of  
20 these carriers is exposed to high intrastate access rates. Further the carriers assessing  
21 the inflated access rates are also participants in the toll market, competing head-to-  
22 head with carriers like wireless carriers that do not charge inflated access rates.

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<sup>4</sup> BellSouth Telecommunications, Inc. currently does business as AT&T Kentucky. Previously, the company's d/b/a was South Central Bell Telephone Company.

<sup>5</sup> See Application of BellSouth Telecommunications Inc. D/B/A South Central Bell Telephone Company To Modify its Method of Regulation, Case No. 94-121, Order, July 20, 1995, p. 2.

<sup>6</sup> See Review of BellSouth Telecommunications, Inc.'s Price Regulation Plan, Case No. 99-434, Order, August 3, 2000, p. 10.

1 Reform is more important today than when the only competitors in the toll market  
2 were a group of stand-alone IXCs that were equally exposed to LECs' high access  
3 rates. Now the LECs are competing in the toll market and enjoying the competitive  
4 advantage caused directly by their own high access rates.

5 **Q. Has the Commission expressed concern that high ILEC rates for monopoly**  
6 **switched access services could adversely impact the toll market?**

7 A. Yes. The Commission wisely recognized the market power of AT&T (then doing  
8 business as South Central Bell Telephone) in its ability to assess high switched access  
9 rates. Specifically the Commission wrote:

10 "South Central Bell presently holds a monopoly position  
11 for IXC access to the switched network. Thus, it can  
12 manipulate the toll market through its pricing of these  
13 services. To assure that South Central Bell does not abuse  
14 this market power, it should be limited to the FCC rates for  
15 all intrastate switched access services it has in common  
16 with the interstate services."<sup>7</sup>  
17

18 **Q. Is there any reason to think the other LECs do not possess the same market**  
19 **power within its service territory as South Central Bell Telephone [now AT&T]**  
20 **possesses within its service territory?**

21 A. No. Each LEC possesses the same amount of market power as the purveyor of a  
22 monopoly service, intrastate switched access, for calling to and from each of its end  
23 user customers.

### 24 **Competition Is Harmed by High Switched Access Rates**

25  
26 **Q. Are telecommunication carriers affected by inflated switched access rates?**  
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<sup>7</sup> See Application of BellSouth Telecommunications Inc. D/B/A South Central Bell Telephone Company To Modify its Method of Regulation, Case No. 94-121, Order, July 20, 1995, p. 22.



1 A. Yes. All carriers providing voice communication services in Kentucky must use  
2 switched access to terminate non-local calls to the LECs customers. Because these  
3 switched access services are an essential input to the services other carriers are  
4 providing, these carriers' input costs are increased by the LECs' inflated access rates.  
5 Further, the overcharges the carriers are forced to provide to each LEC can then be  
6 used by the LEC to undercut the competing carriers' retail service offerings.  
7 Obviously, a market in which competing carriers are over-charged by the LECs for  
8 use of essential network functionality is not one in which a level playing field exists.

9 **Q. How do telecommunication carriers recover these higher input costs?**

10 A. Because the carriers are in business to make a profit, the high access costs are  
11 recovered in the price of the retail services they are offering in the market just like  
12 other input costs. The result is that higher retail prices must be charged by the  
13 competitors while each LEC charging the high access rates is permitted to use the  
14 access overcharges to suppress the price of its retail service offerings.

15 **Q. Are wireless carriers impacted by high access rates? Aren't they only charged  
16 reciprocal compensation rates to terminate their traffic?**

17 A. Wireless carriers are charged reciprocal compensation rates to terminate calls within a  
18 Metropolitan Trading Area ("MTA"). But if the end points of a call cross an MTA  
19 boundary, the wireless carrier is charged access rates by the local exchange carrier  
20 terminating that call.

21 **Q. How many MTAs are within the state of Kentucky?**

22 A. There are five MTAs that have at least part of their area within Kentucky. Few states  
23 in the country have more MTAs within their boundaries. As a result, wireless carriers

1 are impacted by high access rates they incur for calls that remain within Kentucky but  
2 cross the numerous MTA boundaries within the state.

3 **Q. Do wireless carriers usually terminate interMTA calls over their direct**  
4 **connections to the LECs or are those calls completed over an IXC's network**  
5 **connections?**

6 A. Wireless carriers typically enter contractual arrangements with IXCs to complete their  
7 interMTA calls over the IXCs' access network connections to LECs. A small amount  
8 of traffic exchanged over the local connections between wireless carriers and ILECs  
9 is also interMTA traffic and ILECs charge the wireless carriers directly for access  
10 charges on that traffic. The vast majority of wireless-originated interMTA traffic is  
11 charged to IXCs that in turn collect those access charges from their wholesale  
12 customers, the wireless carriers. Wireless carriers pay those access charges indirectly.

13 **Q. Wireless carriers pay access charges both directly and indirectly. Do they also**  
14 **charge other carriers access rates for calls terminated to their customers?**

15 A. No. Wireless carriers do not charge other carriers access charges for completing non-  
16 local calls. Thus, while there is no law, rule, regulation, or Order preventing wireless  
17 carriers from imposing such charges, the imposition of such charges can only be  
18 accomplished via commercial agreement, and I am aware of the existence of no such  
19 agreement. Wireless carriers have been put into the difficult situation of being only a  
20 payer of access charges. This asymmetrical intercarrier compensation arrangement  
21 shifts dollars from wireless customers to wireline customers, creating a competitive  
22 imbalance between wireline and wireless service.

1 **Q. Will the ILECs attempt to explain their need to generate the same amount of**  
2 **revenue that the high access rates provide today?**

3 A. Yes. Without a doubt the ILECs will make the case for revenue neutrality. The ILECs  
4 may even request replacement of those access revenues through the Kentucky  
5 Universal Service fund. Shifting the ILECs' external funding source from bloated  
6 access rates to universal service payments fixes nothing. The competing carriers are  
7 still burdened and customers are still burdened by their obligations to fund another  
8 carrier's operations. The consumers will still not receive the best offers in the market  
9 because the competing carriers will embed the universal service payments within  
10 their retail rates, or assess them to customers in the form a separate surcharge on the  
11 customers' bill. Either way, the customers of the competing carriers not only pay for  
12 the cost of the services they use on their chosen provider, but the customers must also  
13 fund the operations of the universal services funding recipient. If access overcharges  
14 are simply shifted to universal services fund payments, competition is still hindered  
15 and as discussed next the consumers are still harmed.

16  
17 **Consumers Are Harmed by High Switched Access Rates**

18  
19 **Q. Are consumers harmed by inflated access rates?**

20 A. Yes. Consumers are harmed by unreasonable access rates. It is true that consumers  
21 are now afforded more choices for their voice communications needs than when the  
22 ILECs were the only providers. Most consumers have a choice between alternative

1 carriers providing cable telephony,<sup>8</sup> traditional CLEC service, wireless service,<sup>9</sup> and  
2 VoIP service.<sup>10</sup> But each of these carriers is charged inflated access rates to the  
3 LECs they are attempting to compete against. Because carriers strive to cover their  
4 input costs to earn a profit, inflated intrastate switched access costs are impeding the  
5 retail offers competing carriers can make available in the market. Consumers are not  
6 receiving the best offers in the market because high switched access rates, originally  
7 meant to keep service affordable, are now inflating the rates for all alternative  
8 services. If the switched access rates are reduced, consumers will benefit.

9 **Q. Are price reductions the only benefit to consumers if LEC intrastate switched**  
10 **access rates are reduced?**

11 A. No. Reduced retail prices are only one way consumers can benefit from reduced  
12 access rates. When carriers' access bills are lowered, consumers will benefit because  
13 service providers will have more resources to expand service coverage, enhance  
14 service quality, develop new and innovative service offerings, and provide better  
15 pricing in the market. Thus, reducing LEC intrastate switched access charges to just

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<sup>8</sup> As of December 2010, approximately 23.9M customers were purchasing cable telephony service nationally. (National Cable and Telecommunications Association Industry Data, <http://www.ncta.com/Statistics.aspx>)

<sup>9</sup> According to the FCC's Local Competition Report, released March 2011, 3.654 million people in Kentucky were purchasing wireless service as of June, 2010 (See Table 17). In comparison, only 1.569 million people in Kentucky have non-VoIP landline service (See Table 8). Each table is attached within Exhibit JAA-G1 ([http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-299052A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-299052A1.pdf)) The Center for Disease Control and Prevention National Center for Health Statistics reports that as of June 2010, 26.6% of American households now subscribe to wireless service only. In comparison only 12.9% of households have landline service only. (See Wireless Substitution Early Release Estimates, <http://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201005.pdf>) also attached as Exhibit JAA-G2. Exhibits to the James A. Appleby Direct Testimony in this case contain a G to differentiate them from exhibits produced in Case No. 2007-00503.

<sup>10</sup> See FCC Local Competition Report, Table 8 see attached as Exhibit JAA-G1. As of the end of June 2010, 268,000 interconnected VoIP subscriptions existed in Kentucky. This figure includes cable telephony as well as services such as Vonage.

1 and reasonable levels will promote competition, and its many benefits, within the  
2 market.

3  
4 **There is a Strong Consensus the Access Charge System must be Reduced**

5  
6 **Q. Has the Kentucky Commission recognized the need to reform intrastate**  
7 **switched access rates?**

8 A. Yes. The Commission years ago aggressively reformed the rates of AT&T Kentucky.  
9 Throughout this testimony I have referenced what reform actions the Commission  
10 took and why. The reasons the Commission took action on AT&T's access rates in  
11 the past are equally applicable to the other LECs in today's market. Further, as you  
12 will see later, Sprint's recommendation for reducing LEC intrastate access rates is  
13 consistent with the reform actions taken by the Commission on AT&T's rates.

14 **Q. Have other states taken action to reduce intrastate switched access rates?**

15 A. Yes. Twenty states have taken the pro-consumer, pro-competitive action to reduce  
16 intrastate access rates in their states to reasonable rate levels for at least the largest  
17 ILEC in the state. In each state, the intrastate rates of the largest ILEC approximate  
18 the level as their interstate rates. I include New Jersey among the above-mentioned  
19 twenty states because the New Jersey Board of Public Utilities recently mandated that  
20 all LECs, incumbent and competitive, reduce its rates to interstate parity over a 36  
21 month period that will be completed in 2013.<sup>11</sup> Other state commissions have opened  
22 proceedings to address intrastate switched access rates. The telecommunications

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<sup>11</sup> See In the Matter of the Board's Investigation and Review of Local Carrier Intrastate Exchange Access Rates, New Jersey Board of Public Utilities Docket No. TX08090830, Order (October 6, 2008).

1 industry and state commissions widely recognize the need to take action to reduce  
2 intrastate switched access rates to just and reasonable levels to promote competition  
3 and a level playing field.

4 **Q. Has the FCC expressed a desire to reform access services in its Broadband Plan**  
5 **released in 2010?**

6 A. Yes. On March 16, 2010, the FCC released a voluminous plan (the “National  
7 Broadband Plan”) discussing numerous issues that it believes impact the transition of  
8 this nation’s telecommunications infrastructure from narrow-band to broadband.<sup>12</sup>  
9 One of the issues included was a brief discussion of the broken intercarrier  
10 compensation system. In the National Broadband Plan, the FCC again recognizes the  
11 need to reform intercarrier compensation and sets out a goal to transition away from  
12 intercarrier compensation payments over ten years. The first phase of the transition  
13 will cause intrastate access rates to mirror interstate access rates. Further, the  
14 National Broadband Plan proposed to increase end user charges to offset reduced  
15 access revenues. As discussed later in this testimony, the National Broadband Plan is  
16 consistent with the reform advocated by Sprint Nextel in this proceeding.

17 **Q. Has the FCC taken another step toward reforming the intercarrier**  
18 **compensation system?**

19 A. Perhaps. A year after the release of the National Broadband Plan, the FCC issued a  
20 Notice of Proposed Rulemaking covering a broad number of issues including the  
21 reform of intercarrier compensation.<sup>13</sup> A comment cycle has been established that  
22 extends through the first half of 2011. The foregoing notwithstanding, no FCC

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<sup>12</sup> FCC, *Connecting America: The National Broadband Plan*, released March 16, 2010.

<sup>13</sup> *In the Matter of Developing a Unified Intercarrier Compensation Regime*,  
Further Notice of Proposed Rulemaking, CC Docket 01-92, FCC-11-13, (February 9, 2011)

1 decision can be expected until late in 2011, if any action occurs. Please recall that the  
2 FCC has had a docket(s) open since 2001 to comprehensively reform the intercarrier  
3 compensation system. So although there is broad consensus reform is necessary,  
4 action is still elusive.

5 **Q. Does the FCC have the authority to address the intrastate switched access rates**  
6 **in Kentucky?**

7 A. Although the National Broadband Plan opines that the FCC has sufficient authority,  
8 there is as of yet no definitive answer. In fact, the National Broadband Plan  
9 suggested that Congress could act to make the FCC's authority clearer. The  
10 Kentucky Commission, however, possesses unquestioned authority today to reform  
11 intrastate switched access rates of all LECs operating in the Commonwealth. Sprint  
12 Nextel believes the Commission should act as many other states have already done  
13 and institute access charge reform for remaining ILECs and all CLECs.

14  
15 **Switched Access is a Monopoly Service**

16  
17 **Q. Can switched access ever be anything but a monopoly service?**

18 A. No. As stated above the Commission has previously concluded that switched access  
19 is a monopoly service.<sup>14</sup> There can only be one provider of switched access services  
20 for calls to and from a local service customer and that is the customer's local service  
21 provider. If a customer of Carrier A wishes to talk to the local customer of Carrier B,  
22 Carrier A's customer must go through Carrier B's network to reach the called party.

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<sup>14</sup> See Application of BellSouth Telecommunications Inc. D/B/A South Central Bell Telephone Company To Modify its Method of Regulation, Case No. 94-121, Order, July 20, 1995, p. 22

1 When the call is not a local call and is completed within the Commonwealth of  
2 Kentucky, Carrier A (whether a wireline, cable telephony, wireless, or other service  
3 provider) will incur Carrier B's intrastate switched access charges.<sup>15</sup> The service is a  
4 monopoly and always will be a monopoly.<sup>16</sup>

5  
6 **LEC Switched Access Rates in Kentucky are Unreasonably High by Many Relevant**  
7 **Comparisons**

8  
9 **Q. Is there evidence that the current intrastate switched access rates are too high by**  
10 **a wide margin?**

11 A. Yes. Several measures demonstrate that the ILEC intrastate switched access rates in  
12 Kentucky are excessive. These measures include: 1) a comparison between interstate  
13 and intrastate switched access rates; 2) a comparison between reciprocal  
14 compensation rates and intrastate switched access rates; 3) a comparison of the  
15 Windstream rates to AT&T-Kentucky access rates; 4) a comparison of the  
16 "teledensity" of Windstream Kentucky to AT&T-Kentucky and 5) a comparison of  
17 the average ILEC teledensity other than Windstream to the national Non-BOC  
18 teledensity. I will address these measures.

19 **Q. Why is a comparison of per-minute charges the LECs assess for interstate and**  
20 **intrastate traffic meaningful?**

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<sup>15</sup> This assumes the terminating carrier (Carrier B in the above example) is not a wireless carrier since wireless carriers do not bill access charges.

<sup>16</sup> See Notice of Proposed Rulemaking, *In the Matter of Developing a Unified Intercarrier Compensation Regime*, CC Docket No. 01-92, 16 FCC Rcd 9610, at 9616-17 (rel. April 27, 2001)(the FCC acknowledged that terminating access is a monopoly).



1 A. No matter if the call is jurisdictionally an interstate call or an intrastate call, the same  
2 ILEC network elements are used to complete a call on LEC's network regardless of  
3 where that call originated.<sup>17</sup> Therefore, comparing the intrastate switched access rate  
4 to the interstate switched access rate provides a good indication of what a reasonable  
5 rate would be for intrastate switched access service.

6 **Q. How do Windstream's intrastate rates compare to their respective interstate**  
7 **rates?**

8 A. Windstream – East average charges more than **[Begin Confidential]**  
9 **[End Confidential]** as much per minute for intrastate switched access service as it  
10 does for interstate switched access service. Windstream – West average charge is also  
11 far more. Its intrastate charges are more than **[Begin Confidential]** **[End**  
12 **Confidential]** as much for intrastate service compared to the interstate access  
13 services.<sup>18</sup>

14 **Q. How does Windstream's intrastate rate in Kentucky compare to the intrastate**  
15 **switched access rates of the other large ILEC in Kentucky?**

16 A. AT&T Kentucky's intrastate switched access rate and interstate switched access rate  
17 approximate \$.00405 per minute. The Windstream ILECs average rates of **[Begin**  
18 **Confidential]** **[End Confidential]** for Windstream – East and **[Begin**  
19 **Confidential]** **[End Confidential]** for Windstream – West are, respectively,  
20 nearly **[Begin Confidential]** **[End Confidential]** more than AT&T Kentucky

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<sup>17</sup> All of the ILECs agree the functionality provided by the ILECs for completing interstate and intrastate calling is the same. Responses to AT&T I-18(a) All of the ILECs also agree the functionality provided by the ILECs for completing local and non-local calling is the same. Responses to AT&T I-18(b)

<sup>18</sup> See CONFIDENTIAL Exhibit JAA-G3 which uses the 2010 data from Windstream's confidential response to AT&T Data Request No. 11 - This average rate includes the intrastate non-traffic sensitive revenue requirement charges. Also used in the Windstream interstate Annual Access Charge tariff filing form TGT-1. Windstream has not yet reached \$.0065 average traffic sensitive rate. The calculation is based on reaching that rate benchmark.

1 and more than [Begin Confidential] [End Confidential] more than AT&T –  
2 Kentucky’s intrastate switched access rate per minute.<sup>19</sup> Again, the Windstream rates  
3 are out of line when compared to another large ILEC’s rates.

4 **Q. How do the other ILECs’ intrastate rates compare to their interstate rates?**

5 A. The intrastate rates of each of the other ILECs in this case are also far above its  
6 interstate rate levels. The attached exhibit shows the data gathered from the ILECs in  
7 response to data requests. For example the TDS ILECs and the other rural ILECs  
8 simple average intrastate rate is more than [Begin Confidential] [End  
9 Confidential] times higher than the simple average interstate rate for those carriers.  
10 Clearly the rates are not reasonable by this measure.<sup>20</sup>

11 **Q. How do the rural ILECs’ reciprocal compensation rates compare to their**  
12 **intrastate switched access rates?**

13 A. Again, the intrastate rates are far above the compensation the ILECs receive for  
14 completing local calls. The rural ILECs receive less than \$.01 per minute of  
15 reciprocal compensation<sup>21</sup> while expecting to be paid on average over \$.10 per minute  
16 of intrastate access.<sup>22</sup>

17 **Q. Is there other data relating to Windstream ILEC service territories in Kentucky**  
18 **that would suggest their intrastate access rates are too high?**

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<sup>19</sup> *id*

<sup>20</sup> See CONFIDENTIAL Attachment JAA-G4

<sup>21</sup> Many ILECs provided their reciprocal compensation rates in response to AT&T 1-8. TDS and Windstream did not provide rates in their responses.

<sup>22</sup> See CONFIDENTIAL Attachment JAA-G4

1 A. Yes. Teledensity data provides a meaningful comparison of operating territory  
2 economics.<sup>23</sup> Teledensity is a measurement that quantifies relative distribution of a  
3 customer base within a service territory. Teledensity illustrates the relative customer  
4 distribution by dividing the working loops or lines within a service territory by the  
5 square miles of the service territory. A higher teledensity number reflects lower unit  
6 costs because there are more units over which to recover fixed costs.

7 **Q. What did you find when you compared the teledensity of Windstream service**  
8 **territories in Kentucky to the teledensity of AT&T in Kentucky?**

9 A. The average teledensity of the Windstream territories in Kentucky is similar to the  
10 teledensity of AT&T in Kentucky. The Windstream teledensity in Kentucky is 39.9  
11 working loops per square mile while AT&T's teledensity was 48.3.<sup>24</sup> This data  
12 suggests the two ILECs should have similar economics.<sup>25</sup> Yet Windstream is charging  
13 far more for intrastate switched access as detailed above.

14 **Q. Did you examine the teledensity of the other ILECs operating in Kentucky as**  
15 **well?**

16 A. Yes. The average teledensity of the other ILECs in Kentucky was approximately 17.5  
17 working loops per square mile. This of course is less than the teledensity of the  
18 AT&T Kentucky and Windstream Kentucky but this teledensity is nearly double the

---

<sup>23</sup> The FCC used a teledensity analysis to establish the interstate switched access target rate of non-BOC ILECs in the CALLS Order. ILECs with teledensity greater than 19 on a holding company basis received a lower benchmark. See Access Charge Reform; Price Cap Performance Review for Local Exchange Carriers; Low- Volume Long Distance Users; Federal-State Joint Board On Universal Service, Sixth Report and Order in CC Docket Nos. 96-262 and 94-1, Report and Order in CC Docket No. 99-249, Eleventh Report and Order in CC Docket No. 96-45, 15 FCC Red 12962 (May 31,2000) ("*CALLS Order*").

<sup>24</sup> See Exhibit JAA-5 to the Appleby Direct Testimony in Case No. 2007-00503 for teledensity calculation for the Windstream ILECs in Kentucky and AT&T Kentucky.

<sup>25</sup> The Windstream East – Lexington study area, which represents approximately 75% of the Windstream business in Kentucky, has a teledensity greater than AT&T Kentucky.

1 average teledensity of the non-Bell Operating Company (BOC) service areas.<sup>26</sup> This  
2 measure is an indication that the service costs in rural Kentucky as a whole are less  
3 than the service costs in rural America in general. Yet another reason high access  
4 rates are not needed in Kentucky in today's market.

5 **Q. So ILEC intrastate access rates are high by many measures. Why is it important**  
6 **that switched access rates be reduced?**

7 A. If rates for switched access services are too high, all carriers with customers that wish  
8 to communicate with ILEC customers will provide the ILECs with a source of excess  
9 profit. This excess profit on the monopoly access services can be used by the ILECs  
10 to decrease or maintain lower prices for its retail services. In other words, the  
11 uneconomic, anticompetitive profit extracted by the ILECs from their direct  
12 competitors directly enable the ILECs to offer lower retail prices while  
13 simultaneously hindering the competitors' ability to compete. This harm to  
14 competition ultimately inflates the price of retail services to consumers and  
15 contravenes the pro-competitive policies of the Legislature and the Commission.

16  
17 **Each LEC Should Reduce Its Intrastate Switched Access Rates to Interstate Levels**

18  
19 **Q. What is your recommendation to the Commission?**

20 A. Sprint recommends the Commission require each LEC operating in the  
21 Commonwealth of Kentucky to set its intrastate switched access rate and structure for  
22 each individual access service equal to the LEC's equivalent interstate switched  
23 access service rate and structure. Further, those intrastate rates should continue to

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<sup>26</sup> See Attachment JAA-G5

1 mirror interstate levels and structure should future changes in the interstate rates  
2 occur. For example, Windstream Kentucky West has yet to reach the target average  
3 traffic sensitive rate of \$.0065<sup>27</sup> as prescribed by FCC rules. Further interstate  
4 reduction should be reflected in the Windstream intrastate rates.

5 **Q. Does this recommendation include the elimination of charges associated with the**  
6 **Non-Traffic Sensitive Revenue Requirement (NTSRR)?**

7 A. Yes. The NTSRR was designed to collect local loop costs or costs associated with the  
8 retail customer's connection to the local network. Those costs are incurred when the  
9 retail customer chooses to purchase a retail service from the LEC. Those costs should  
10 be collected by the LEC from its own retail customers.

11 **Q. Has the Commission previously ruled that an ILEC's intrastate switched access**  
12 **rates should mirror its interstate switched access rates?**

13 A. Yes. As previously mentioned, AT&T, then doing business as South Central Bell,  
14 was ordered to mirror its interstate rates<sup>28</sup> and has done so since August 1, 1995.<sup>29</sup>  
15 The Commission later ensured all future interstate rate changes were also mirrored by  
16 AT&T.<sup>30</sup>

17 **Q. Has the Commission previously ruled that the NTSRR of an ILEC should be**  
18 **recovered from retail services?**

---

<sup>27</sup> Windstream Kentucky West TGT-1 filed 6-16-11 shows the average traffic sensitive rate will be \$.00705295 when its tariff filing is effective on July 1, 2011.

<sup>28</sup> See Application of BellSouth Telecommunications Inc. D/B/A South Central Bell Telephone Company To Modify its Method of Regulation, Case No. 94-121, Order, July 20, 1995, p. 50.

<sup>29</sup> Application of BellSouth Telecommunications Inc. D/B/A South Central Bell Telephone Company To Modify its Method of Regulation, Case No. 94-121, Order on BellSouth's Motion For Clarification, November 3, 1995, p. 1.

<sup>30</sup> The Commission required AT&T to mirror any interstate future changes. See In the Matter of: The Tariff Filing of BellSouth Telecommunications Inc. to Mirror FCC Interstate Access Rates, Case No. 98-065, Order, March 31, 1999, p. 4.

1 A. Yes. AT&T, then doing business as South Central Bell, was ordered to eliminate the  
2 NTSRR and instead collect the revenues from retail services. In that case, it was  
3 determined that AT&T could collect the reduced access revenues in basic local  
4 service rates and message toll service (“MTS”).<sup>31</sup>

5 **Q. Why is the interstate rate level the appropriate standard for LEC rates in this**  
6 **proceeding?**

7 A. Reducing each LEC’s intrastate switched access rate to its interstate rate level is  
8 appropriate for several reasons. First, the LECs are providing interstate switched  
9 access service at these FCC-approved levels. Sprint is not aware that any of the LECs  
10 have challenged the currently effective interstate rates at the FCC as non-  
11 compensable, so clearly those rate levels sufficiently cover the cost of those  
12 functions. Second, by using existing interstate switched access rates of each LEC, the  
13 Commission will avoid the need to determine the cost standard to be used to set the  
14 rates at which each LEC should exchange intrastate switched access traffic in this  
15 proceeding. Third, mirroring intrastate rates to interstate rates will reduce access rate  
16 arbitrage schemes and tariff shopping.<sup>32</sup> Finally, and likely most important, the  
17 infrastructure used to provide intrastate switched access services is the same as the  
18 infrastructure used to provide interstate switched access services.<sup>33</sup> As the  
19 Commission explained in the AT&T ruling,

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<sup>31</sup> See *In the Matter of: Review of BellSouth Telecommunications Inc.’s Price Cap Plan*, Case No. 99-434, September 5, 2000 letter from Fred L. Gerwing (AT&T) to Thomas M. Dorman, Executive Director, Attachment 5: Elimination of Non Traffic Sensitive Revenue Requirement (NTSRR).

<sup>32</sup> The Commission also believes mirroring will limit tariff shopping. See *Application of BellSouth Telecommunications Inc. D/B/A South Central Bell Telephone Company To Modify its Method of Regulation*, Case No. 94-121, Order, July 20, 1995, p. 50.

<sup>33</sup> Windstream also acknowledges the functionality to terminate interstate, intrastate and local traffic does not differ. Windstream response to AT&T 1-10 (Case No. 2007-00503) and Windstream response to AT&T 1-18.

1                   “There is no evidence that the costs of interstate and  
2                   intrastate access services are substantially different.”<sup>34</sup>

3  
4           For these reasons, an Order requiring each of the LECs to mirror its interstate rate  
5           levels in this proceeding is a reasonable step in the reform of intrastate switched  
6           access service in Kentucky.

7   **Q. Why is it important that the Commission address the intrastate switched access**  
8   **rate levels of the CLECs in this proceeding?**

9   A. Call termination can only be performed by the retail service provider for an end user.  
10   Like ILECs, CLECs have absolutely no incentive to limit the level of their switched  
11   access rates; and like inflated ILEC access rates, inflated CLEC access rates  
12   negatively impact the retail telecommunications marketplace.

13   **Q. Please explain.**

14   A. The higher that CLECs set their switched access rates, the more their cost of service  
15   is recovered from the CLECs’ competitors instead of the CLECs’ own customers.  
16   Inflated access rates allow the CLECs to offer lower retail rates that competitors  
17   paying those access rates cannot match. Competitors become an external funding  
18   source for CLEC offerings through high switched access rates that other carriers must  
19   pay to complete their non-local calls to the CLECs’ customers. High switched access  
20   rates, regardless of the entity imposing those rates, distort the retail market.

21   **Q. How should the Commission remedy this market distortion?**

22   A. CLECs’ switched access should be set at levels that do not distort the retail market.  
23   To accomplish that, Sprint believes the Commission should prevent the aggregate  
24   CLEC access rate from exceeding the aggregate rate of the ILEC the CLEC is

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<sup>34</sup> *Id.*

1 competing against for the functions the CLEC performs. Since this is the standard that  
2 the FCC has implemented for CLEC interstate switched access rates, the effect is to  
3 set the CLECs' intrastate access rates and rate structure equal to their interstate  
4 switched access rates and rate structure.

5 **Q. Can the LECs collect this access revenue reduction from its own retail**  
6 **customers?**

7 A. Yes. As demonstrated within the next section, the LECs have shown an ability to  
8 generate more revenue per customer. The full suite of services the LECs now possess  
9 permits the replacement of these access revenues with revenues generated by  
10 purchases of retail service provisioned over the local network connections.

11 **Q. Is the vast majority of the access overcharges designed to collect the cost of the**  
12 **customers' local network connection or loop?**

13 A. Yes. The overcharges include significant charges for the local loop. For example,  
14 nearly **[Begin Confidential]** **[End Confidential]** of the access revenue reductions  
15 for Windstream would be from the elimination of the NTSRR charges.<sup>35</sup> Windstream  
16 and the other ILECs now offer more services to their retail customers on that loop  
17 facility. I will detail the value of these services to ILECs through publicly available  
18 financial reporting and service offers found of the ILECs websites in the next section.

19  
20 **LECs Continue to Expand Average Revenue per User Through the Sale**  
21 **of More and More Retail Services to their Customer Base**  
22

---

<sup>35</sup> See CONFIDENTIAL Exhibit JAA-G3



1 **Q. Have the ILECs greatly expanded the number of the services they now have to**  
2 **offer to their local telephone customers?**

3 A. Yes. Today, the ILECs offer much more than just local exchange and exchange  
4 access services to their customer base. ILECs now offer long distance, broadband,  
5 video services and an expansive list of customer calling features. These services are  
6 packaged and bundled together with local exchange service. These service bundles  
7 are the lead product offerings for the ILEC in today's market in direct competition to  
8 cable telephony providers and wireless service providers. The discounts offered on  
9 these bundles provide significant incentive for customers to purchase all of their  
10 services from one provider. With the development of these new retail services and the  
11 corresponding bundling of the new services with local service, the ILECs are not  
12 limited to their basic local service as the only means to recover the cost of the local  
13 network connection from their end-user customers. ILECs can now cover that basic  
14 network connection cost over a combination of services, offered in most cases over  
15 the same local network connection. ILECs are now capable of recovering their full  
16 basic network connection costs from their own end user customers. There is no  
17 policy reason to continue to require the ILECs' competitors to fund the ILEC  
18 operations through access rates that are far above the actual cost of the access  
19 functions. In fact, just the opposite is true. In this environment of expanding  
20 revenue opportunities for the ILECs, allowing the ILECs to charge inflated access  
21 rates is anti-competitive and harms consumers' choices in the market.

22 **Q. Is there any public information that would demonstrate the expanding revenue**  
23 **opportunities for Windstream?**

1 A. Yes. Windstream Corporation’s financial reporting provides meaningful information  
2 about its financial strength. The Windstream data in the financial reports is provided  
3 for all of its operating territories nationally, and does not state Kentucky-specific  
4 information. Exhibit JAA–G6 summarizes the expansion of services provided by  
5 Windstream over its local network. The information is derived from a Supplemental  
6 Report Windstream produces with its financial results quarterly.<sup>36</sup>

7 **Q. Does Windstream provide high-speed Internet service over the same network**  
8 **connection to the customer premise as traditional voice services?**

9 A. Yes. Windstream provisions high-speed internet service, Digital Subscriber Line  
10 (“DSL”), over the same customer network connection, or local loop, as traditional  
11 voice services.

12 **Q. Does the Supplemental Report provide any instructive data on Windstream’s**  
13 **high speed Internet service?**

14 A. Yes. Windstream has been able to expand the number of customers purchasing  
15 broadband service from 784.5 thousand to 1.303 million from 1<sup>st</sup> quarter 2007 to 4<sup>th</sup>  
16 quarter 2010. Access line penetration for high-speed Internet has grown from 22.5%  
17 to 42.8% during that same interval.<sup>37</sup> High Speed Internet service is priced at  
18 approximately \$30 per month when purchased in a bundle with other services. If  
19 Windstream is able to sell broadband service within Kentucky at the same rate as it  
20 sells nationally, Windstream would have approximately 155,000 broadband  
21 customers in Kentucky. At \$30 per line per month, Windstream likely is generating

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<sup>36</sup> Source: Windstream Supplemental Financial Reporting document (“Supplemental Report”) is also included in Exhibit JAA-G6

<sup>37</sup> *Id.*

1 nearly \$59 million annually<sup>38</sup> in revenues in Kentucky via broadband service. This is  
2 incremental revenue generated over the Windstream Kentucky local loops since the  
3 access rates were originally set far above the actual cost.

4 **Q. Is Windstream also providing long distance service to the majority of their local**  
5 **service customers?**

6 A. Yes. As recently as the 2<sup>nd</sup> quarter of 2008 Windstream reported that 65.6%<sup>39</sup> of its  
7 customers also purchase long distance service from Windstream Corporation's long  
8 distance affiliated company. I believe Windstream's long distance penetration is  
9 similar today.

10 **Q. Why is long distance market share also important?**

11 A. Again, the more products you are able to sell to your customers, the more revenues  
12 you have to recover your fixed costs like the cost of the basic local network  
13 connection.

14 **Q. Are video services also becoming an important service product for the**  
15 **Windstream?**

16 A. Yes. Windstream is offering satellite video services to their customers within  
17 Kentucky. While satellite video services are not provisioned over the Windstream  
18 telephone local network, these services provide yet another service over which to earn  
19 a margin that can help recover Windstream's fixed costs. Windstream Corporation  
20 had sold digital television services, which includes digital satellite service, to 14.2%  
21 of its customer base by year end 2010 up from 12.2% at year end 2009.<sup>40</sup>

22 **Q. Have you investigated the service offerings of many of the ILECs in Kentucky?**

---

<sup>38</sup> *Id.*

<sup>39</sup> Exhibit JAA-6 to the Appleby Direct Testimony on Case No. 2007-00503

<sup>40</sup> See Exhibit JAA-G6 and Windstream Supplemental Financial Reporting.

1 A. Yes. I visited the websites of seven ILECs including Windstream to understand the  
2 suite of services the ILECs are offering to their customer base. I have detailed my  
3 research on attached Exhibit JAA-G7 to this testimony. Each of the ILECs offer local  
4 voice, long distance, broadband and video services to their customer base either  
5 directly through the local company or through separate affiliated legal entities.  
6 Several of the ILECs also offer wireless services to their customer base. Foothills  
7 Rural has built a fiber-to-the-premise network to at least some of its customer base to  
8 deliver higher speed broadband and video services. Mountain Rural offers broadband  
9 and video services via IPTV technology and states it's "IPTV arrives over telephone  
10 lines." A review of the services offerings demonstrates the ILECs in Kentucky are not  
11 just providers of basic local voice service over their local networks. These ILECs are  
12 sophisticated service providers offering the same suite of products that the largest  
13 providers are also providing to their customers.

14 **Q. Have the ILECs demonstrated how important broadband service is to their**  
15 **service offerings?**

16 A. Yes. The rural ILECs have reported that **[Begin Confidential]** **[End**  
17 **Confidential]** of their customers are purchasing broadband services generating on  
18 average **[Begin Confidential]** **[End Confidential]** per customer per month.<sup>41</sup>  
19 This monthly revenue per customer dwarfs the per month charges the rural ILECs  
20 charge for basic local service. Clearly the ILECs have added a very valuable service  
21 to their product portfolio.<sup>42</sup>

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<sup>41</sup> See Exhibit JAA-G7

<sup>42</sup> See CONFIDENTIAL Exhibit JAA-G8

1 **Q. Do you believe the Kentucky Commission should consider the financial value of**  
2 **these additional services when deciding what to do about the bloated switched**  
3 **access rates of the ILECs?**

4 A. Yes. Sprint believes that if the Commission is provided complete financial  
5 information about operations of these ILECs, there is no financial justification to  
6 allow the ILECs to continue to charge today's high access rates. High access rates are  
7 not necessary in today's market and into the future. Even if one assumes – which  
8 Sprint does not – that extracting overcharges from competitors to maintain low-cost  
9 local service is a valid policy justification supporting inflated access charges, in the  
10 environment described above it is inappropriate to allow switched access rates to be  
11 charged without consideration of the existence of these ample new revenue sources.

12 **Q. Is it necessary to keep intrastate switched access rates at their current level in**  
13 **order to keep local service rates low?**

14 A. No. Intrastate switched access levels were originally set decades ago when the ILECs  
15 were monopoly providers of local exchange service and had limited services from  
16 which to recover their network costs. Both before and following the breakup of the  
17 old Bell system, the monopoly access rates were set far above cost as a regulatory  
18 mechanism to keep local exchange service rates low and thereby ensure the universal  
19 availability of low cost basic telephone service. The telecommunications market has  
20 dramatically changed such that ILECs now offer a full slate of services over their  
21 exchange access network from which to recover their network costs (i.e., local, toll,  
22 long distance, high speed internet, and other services). There remains no justification,

1 financial or otherwise, whatsoever for the historic mechanism that charging inflated  
2 access rates as a means of subsidizing retail local service.

3  
4 **Additional Financial Information to Consider**

5  
6 **Q. Can you provide another financial barometer of the financial strength of the**  
7 **ILECs' business model and the Windstream's landline operations in particular?**

8 A. Yes on the attached exhibit, I have demonstrated that the Windstream Corporation is  
9 paying an annual dividend to its shareholders of \$1.00 per share or a 7.78% annual  
10 return on the current price of Windstream's common stock. Stated a different way  
11 Windstream is distributing profits to its shareholders that are equivalent to \$13.95 for  
12 each access line monthly.<sup>43</sup> In comparison, the Windstream ILECs in Kentucky can  
13 reduce intrastate switched access rates to parity with their interstate rates for  
14 approximately **[Begin Confidential]** **[End Confidential]** per line.<sup>44</sup> Sprint's  
15 recommendation does not preclude recovery of the reduced access revenues. Sprint is  
16 simply asking that Windstream and the other ILECs be required to collect any  
17 revenue recovery from its own end users. If the revenue is collected from  
18 competitive retail services instead of monopoly switched access or universal service  
19 funding, then customers will receive better pricing information about the services the  
20 ILECs provide and competition can help protect the consumers from the ILEC price  
21 changes.

22  

---

<sup>43</sup> See Exhibit JAA-G9

<sup>44</sup> See CONFIDENTIAL Exhibit JAA-G3

1 **Summary of Testimony**

2  
3 **Q. Please summarize your testimony.**

4 A. To ensure and promote full competition, carriers cannot be expected to continue to  
5 fund LEC operations through inflated intrastate switched access rates. LECs have  
6 ample opportunity to recover reductions in access revenue through their existing and  
7 ever expanding set of services it is offering to consumers and businesses in its service  
8 territory. By causing cost recovery to be drawn from services over which consumers  
9 have a competitive choice as opposed to monopoly switched access services, the  
10 consumer is provided complete pricing information about the cost of the services of  
11 all providers in the market. The current cost recovery model forces LEC competitors,  
12 and those competitors' customers, to fund the LEC's operations. When competing  
13 companies are not burdened by the high switched access charges, Kentucky  
14 consumers will receive better pricing choices and competitors will have greater  
15 resources to create innovative new product offerings that consumers' desire.

16 **Q. Does this conclude your Direct Testimony?**

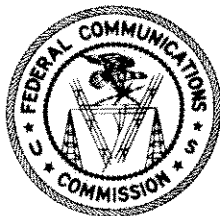
17 A. Yes, it does.

Exhibit JAA-G1  
To the Direct Testimony of  
James A. Appleby  
Filed on behalf of Sprint Nextel  
in ADMINISTRATIVE CASE NO. 2010-00398



# **Local Telephone Competition: Status as of June 30, 2010**

Industry Analysis and Technology Division  
Wireline Competition Bureau  
March 2011



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This report is available for reference in the FCC's Reference Information Center, Courtyard Level, 445 12th Street, SW, Washington, DC. Copies may be purchased by contacting Best Copy and Printing, Inc., 445 12th Street, SW, Room CY-B402, Washington, DC 20554, telephone (800) 378-3160, or via their website at [www.bcpiweb.com](http://www.bcpiweb.com). The report can also be downloaded from the Wireline Competition Bureau Statistical Reports Internet site at [www.fcc.gov/web/stats](http://www.fcc.gov/web/stats).

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**Table 8**  
**Total End-User Switched Access Lines and VoIP Subscriptions by State as of June 30, 2010**  
**(In Thousands)**

State	ILECs				Non-ILECs				Total	Non-ILEC % of Total
	Switched Access Lines	VoIP purchased as		Total	Switched Access Lines	VoIP purchased as		Total		
		Stand-alone	Bundled with Internet			Stand-alone	Bundled with Internet			
Alabama	1,494	0	12	1,506	325	65	183	573	2,079	28
Alaska	271	0	0	271	*	1	*	*	*	*
American Samoa	10	0	0	10	0	0	0	0	10	0
Arizona	1,561	1	1	1,563	829	100	313	1,242	2,805	44
Arkansas	883	0	21	904	120	21	100	242	1,146	21
California	13,798	1	319	14,118	2,296	504	2,336	5,136	19,254	27
Colorado	1,569	0	0	1,569	391	89	412	892	2,461	36
Connecticut	1,266	#	60	1,326	219	55	431	705	2,031	35
Delaware	321	#	10	331	68	*	*	173	504	34
District of Columbia	677	#	3	680	117	15	51	182	862	21
Florida	6,008	#	130	6,138	1,326	455	1,655	3,435	9,574	36
Georgia	2,963	#	48	3,011	635	172	515	1,322	4,333	31
Guam	48	0	0	48	*	*	*	*	*	*
Hawaii	455	#	#	455	44	*	*	128	583	22
Idaho	486	#	#	486	101	11	46	158	645	25
Illinois	4,415	#	165	4,581	646	255	760	1,661	6,241	27
Indiana	2,113	#	72	2,186	240	88	320	649	2,834	23
Iowa	987	#	#	987	191	124	29	344	1,331	26
Kansas	797	0	23	820	228	30	172	429	1,249	34
Kentucky	1,312	#	5	1,317	258	27	236	520	1,837	28
Louisiana	1,417	0	9	1,426	290	49	248	586	2,013	29
Maine	463	0	0	463	141	14	126	282	745	38
Maryland	2,284	#	49	2,333	476	108	359	943	3,277	29
Massachusetts	2,106	#	43	2,149	725	142	822	1,689	3,838	44
Michigan	2,802	#	150	2,952	471	237	1,030	1,738	4,690	37
Minnesota	1,666	0	#	1,666	516	90	319	925	2,592	36
Mississippi	845	0	3	848	149	19	85	253	1,100	23
Missouri	2,101	0	61	2,162	259	77	261	597	2,759	22
Montana	342	#	#	342	44	8	57	109	452	24
Nebraska	521	0	#	521	199	26	106	330	851	39
Nevada	802	#	7	809	147	62	241	449	1,258	36
New Hampshire	366	0	0	366	147	40	201	388	754	51
New Jersey	3,036	1	76	3,112	802	150	1,185	2,137	5,249	41
New Mexico	651	0	0	651	78	16	62	156	807	19
New York	5,590	1	62	5,653	1,852	220	2,711	4,783	10,437	46
North Carolina	3,026	#	19	3,045	503	113	707	1,324	4,369	30
North Dakota	220	0	0	220	86	2	38	126	345	36
Northern Mariana Isl.	16	0	0	16	0	0	0	0	16	0
Ohio	3,629	1	90	3,719	687	91	879	1,657	5,376	31
Oklahoma	1,050	0	20	1,070	288	50	234	572	1,642	35
Oregon	1,079	#	1	1,080	253	59	301	614	1,693	36
Pennsylvania	4,511	1	60	4,571	1,184	226	910	2,321	6,892	34
Puerto Rico	706	0	0	706	*	*	99	244	950	26
Rhode Island	258	#	6	264	220	*	*	308	572	54
South Carolina	1,415	#	14	1,429	313	54	255	622	2,051	30
South Dakota	227	0	0	227	133	4	52	188	415	45
Tennessee	1,941	0	21	1,962	423	75	395	893	2,856	31
Texas	7,377	#	301	7,678	1,140	243	1,058	2,441	10,119	24
Utah	650	0	0	650	181	34	143	359	1,009	36
Vermont	265	0	0	265	49	*	*	109	374	29
Virgin Islands	59	0	0	59	0	*	0	*	*	*
Virginia	2,910	#	34	2,944	1,016	152	408	1,577	4,521	35
Washington	1,960	#	2	1,962	393	119	644	1,157	3,119	37
West Virginia	605	#	1	606	50	17	109	176	782	22
Wisconsin	1,913	#	56	1,970	320	55	353	728	2,697	27
Wyoming	183	#	#	183	12	6	39	58	241	24
Nationwide	100,426	8	1,954	102,388	21,849	4,655	22,278	48,782	151,171	32

# = Rounds to zero. \* = Data withheld to maintain firm confidentiality.

**Table 17**  
**Mobile Telephone Facilities-based Carriers and Mobile Telephony Subscribers**

State	Jun 2010		Subscribers (In Thousands)								
	Carriers	% Resold <sup>1</sup>	2006		2007		2008		2009		2010
			Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun
Alabama	11	9 %	3,276	3,375	3,605	3,765	3,887	3,960	4,003	4,228	4,211
Alaska	11	6	397	412	432	460	480	383	544	586	590
American Samoa	*	*	*	*	*	*	*	*	*	*	*
Arizona	11	7	4,153	4,405	4,637	4,800	4,936	4,983	5,005	5,101	5,268
Arkansas	8	10	1,924	2,044	2,149	2,288	2,446	2,530	2,576	2,519	2,485
California	14	8	27,497	29,717	30,204	32,247	31,946	32,177	32,215	32,938	33,548
Colorado	12	9	3,428	3,608	3,756	3,968	4,066	4,311	4,357	4,503	4,647
Connecticut	7	8	2,582	2,705	2,787	2,884	2,959	3,030	3,047	3,123	3,192
Delaware	8	9	650	683	724	751	775	778	779	803	839
District of Columbia	8	8	879	880	966	936	1,047	1,096	1,116	1,183	1,227
Florida	11	11	14,177	14,762	15,255	15,605	15,809	16,158	16,425	16,744	16,895
Georgia	13	8	6,865	7,282	7,598	7,941	8,142	8,322	8,562	8,863	8,869
Guam	*	*	*	*	*	*	*	*	*	*	*
Hawaii	7	5	1,010	1,035	1,067	1,096	1,115	1,184	1,196	1,216	1,248
Idaho	15	8	901	973	1,019	1,086	1,125	1,167	1,180	1,221	1,269
Illinois	15	7	9,148	9,589	9,949	10,330	10,634	10,919	11,070	11,523	11,604
Indiana	12	9	3,973	4,271	4,448	4,675	4,824	4,956	4,983	5,205	5,289
Iowa	71	8	1,867	2,010	2,058	2,166	2,245	2,319	2,336	2,432	2,466
Kansas	15	11	1,905	2,047	2,133	2,261	2,326	2,421	2,430	2,466	2,491
Kentucky	12	10	2,821	2,966	3,101	3,291	3,343	3,445	3,439	3,631	3,654
Louisiana	10	7	3,356	3,492	3,612	3,765	3,896	4,012	4,053	3,993	3,953
Maine	8	15	787	845	882	941	972	1,012	1,006	1,065	1,040
Maryland	10	7	4,471	4,691	4,818	5,024	5,124	5,234	5,260	5,323	5,500
Massachusetts	8	11	4,917	5,129	5,289	5,470	5,624	5,749	6,027	6,171	6,367
Michigan	12	13	6,863	7,094	7,333	7,608	7,821	8,027	8,171	8,576	8,690
Minnesota	10	9	3,543	3,702	3,834	4,048	4,164	4,345	4,254	4,439	4,611
Mississippi	10	6	1,923	2,030	2,070	2,196	2,252	2,312	2,361	2,345	2,322
Missouri	12	8	4,068	4,322	4,480	4,674	4,835	4,940	4,985	5,129	5,141
Montana	10	4	575	620	650	694	723	748	707	802	783
Nebraska	11	11	1,199	1,272	1,325	1,387	1,451	1,496	1,508	1,515	1,566
Nevada	12	9	1,883	1,990	2,093	2,167	2,249	2,268	2,325	2,393	2,417
New Hampshire	8	11	897	943	973	1,022	1,045	1,080	1,075	1,125	1,141
New Jersey	8	8	6,954	7,207	7,419	7,654	7,834	8,008	8,036	8,158	8,373
New Mexico	10	6	1,253	1,333	1,416	1,489	1,555	1,536	1,550	1,624	1,668
New York	11	10	14,574	15,262	15,901	16,395	17,260	16,702	18,193	18,882	19,502
North Carolina	12	10	6,209	6,627	6,962	7,306	7,428	8,024	8,193	8,108	8,259
North Dakota	11	4	457	473	492	513	541	581	562	618	590
Northern Mariana Isl.	*	*	*	*	*	*	*	*	*	*	*
Ohio	13	11	7,939	8,380	8,723	9,099	9,357	9,565	9,456	10,059	10,236
Oklahoma	17	6	2,317	2,480	2,572	2,723	2,808	2,889	2,988	3,077	3,109
Oregon	11	8	2,484	2,656	2,781	2,923	3,007	3,084	3,112	3,235	3,297
Pennsylvania	14	11	8,349	8,831	9,201	9,615	9,895	10,214	10,455	10,867	11,141
Puerto Rico	6	3	2,171	2,301	2,323	2,411	2,502	2,624	2,706	2,807	2,879
Rhode Island	6	8	765	798	829	848	874	888	880	893	906
South Carolina	14	10	3,001	3,209	3,340	3,500	3,573	3,323	3,374	3,896	3,848
South Dakota	10	4	514	548	570	596	611	631	613	681	681
Tennessee	12	10	4,731	5,127	4,971	5,246	5,791	5,518	5,676	5,914	6,041
Texas	24	6	16,928	17,822	18,792	19,677	20,390	21,008	21,403	21,849	22,201
Utah	13	6	1,649	1,775	1,874	1,971	2,046	2,095	2,109	2,166	2,220
Vermont	6	7	334	358	375	402	421	435	398	463	431
Virgin Islands	*	*	*	*	*	*	*	*	*	*	*
Virginia	11	9	5,325	5,607	6,148	6,416	6,242	6,856	6,596	7,250	7,440
Washington	11	8	4,495	4,799	5,035	5,292	5,461	5,624	5,671	5,816	5,965
West Virginia	12	15	965	1,040	1,095	1,173	1,236	1,295	1,315	1,401	1,406
Wisconsin	13	11	3,517	3,510	3,641	3,842	3,966	4,265	4,317	4,546	4,599
Wyoming	13	5	359	387	410	441	457	484	429	517	501
Nationwide	176	9 %	217,418	229,619	238,316	249,332	255,729	261,284	265,332	274,283	278,918

\* = Data withheld to maintain firm confidentiality. Some data for December 2009 have been revised.

<sup>1</sup> Percentage of mobile telephony subscribers purchasing their service subscriptions from a mobile wireless reseller.

Exhibit JAA-G2  
To the Direct Testimony of  
James A. Appleby  
Filed on behalf of Sprint Nextel  
in ADMINISTRATIVE CASE NO. 2010-00398

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# Wireless Substitution: Early Release of Estimates From the National Health Interview Survey, January – June 2010

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## Overview

Preliminary results from the January–June 2010 National Health Interview Survey (NHIS) indicate that the number of American homes with only wireless telephones continues to grow. More than one of every four American homes (26.6%) had only wireless telephones (also known as cellular telephones, cell phones, or mobile phones) during the first half of 2010—an increase of 2.1 percentage points since the second half of 2009. In addition, nearly one of every six American homes (15.9%) received all or almost all calls on wireless telephones despite having a landline. This report presents the most up-to-date estimates available from the federal government concerning the size and characteristics of these populations.

## NHIS Early Release Program

This report is published as part of the NHIS Early Release Program. In May and December of each year, the Centers for Disease Control and Prevention’s National Center for Health Statistics (NCHS) releases selected estimates of telephone coverage for the civilian noninstitutionalized U.S. population based on data from NHIS, along with comparable estimates from NHIS for the previous 3 years. The estimates are based on in-person interviews that NHIS conducts continuously throughout the year to collect information on health status, health-related behaviors, and health care utilization. The survey also includes information about household telephones and whether anyone in the household has a wireless telephone.

Two additional reports are published as part of the NHIS Early Release Program. *Early Release of Selected Estimates Based on Data From the National Health Interview Survey* is published quarterly and provides estimates for 15 selected measures of health. *Health Insurance Coverage: Early Release of Estimates From the National Health Interview Survey* is also published quarterly and provides additional estimates regarding health insurance coverage.

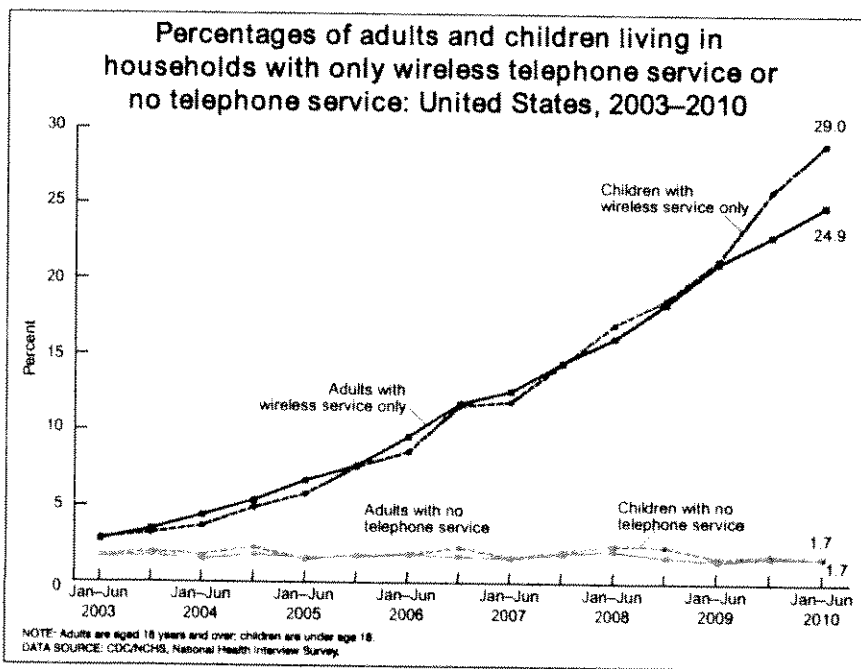
## Methods

For many years, NHIS has asked respondents to provide residential telephone numbers, to permit recontact of survey participants. Starting in 2003, additional questions were asked to determine whether a family had a landline telephone. NHIS families were considered to have landline telephone

service if the survey respondent for each family reported that there was “at least one phone inside your home that is currently working and is not a cell phone.”

A “family” can be an individual or a group of two or more related persons living together in the same housing unit (a “household”). Thus, a family can consist of only one person, and more than one family can live in a household (including, for example, a household where there are multiple single-person families, as when unrelated roommates are living together).

The survey respondent for each family was also asked whether “anyone in your family has a working cellular telephone.” Families are identified as “wireless families” if respondents reported that someone in the family had a working cellular telephone at the time of interview. This person (or persons)



Figure



could be a civilian adult, a member of the military, or a child.

Households are identified as “wireless-only” if they include at least one wireless family and if there are no working landline telephones inside the household. Persons are identified as wireless-only if they live in a wireless-only household. A similar approach is used to identify adults living in households with no telephone service (neither wireless nor landline).

Household telephone status (rather than family telephone status) is used in this report because most telephone surveys do not attempt to distinguish between families when more than one family lives in the same household.

From January through June 2010, information on household telephone status was obtained for 17,619 households that included at least one civilian adult or child. These households included 33,780 civilian adults aged 18 years and over and 12,234 children under age 18.

Analyses of demographic characteristics are based on data from the NHIS Person and Household files. Demographic data for all civilian adults living in interviewed households were used in these analyses. Estimates stratified by poverty status are based on reported income only, because imputed income values are not available until a few months after the annual release of NHIS microdata. Household income was unknown for 13% of adults.

Analyses of selected health measures are based on data from the NHIS Sample Adult file. Health-related data for one civilian adult randomly selected from each family were used in these analyses. From January through June 2010, data on household telephone status and selected health measures were collected from 14,112 randomly selected adults.

Because NHIS is conducted throughout the year and the sample is designed to yield a nationally representative sample each week, data can be analyzed quarterly. Weights are created for each calendar quarter of the NHIS sample. NHIS data weighting

procedures are described in more detail in a previous NCHS report (see Botman et al., 2000). To provide access to the most recent information from NHIS, estimates using the January–June 2010 data are being released prior to final data editing and final weighting. These estimates should be considered preliminary. If estimates are produced using the final data files, the estimates may differ slightly from those presented here.

Point estimates and 95% confidence intervals were calculated using SUDAAN software, to account for the complex sample design of NHIS. Differences between percentages were evaluated by using two-sided significance tests at the 0.05 level. Terms such as “more likely” and “less likely” indicate a statistically significant difference. Lack of comment regarding the difference between any two estimates does not necessarily mean that the difference was tested and found to be not significant. Because of small sample sizes, estimates based on less than 1 year of data may have large variances, and caution should be used in interpreting such estimates.

## Telephone Status

In the first 6 months of 2010, more than one of every four households (26.6%) did not have a landline telephone but did have at least one wireless telephone (Table 1). Approximately 24.9% of all adults (approximately 57 million adults) lived in households with only wireless telephones; 29.0% of all children (more than 21 million children) lived in households with only wireless telephones.

The percentage of households that are wireless-only has been steadily increasing. The 2.1-percentage-point increase from the last 6 months of 2009 through the first 6 months of 2010 is similar to the 1.8-percentage-point increase observed from the first 6 months of 2009 through the last 6 months of 2009 and to the 2.5-percentage-point increase observed

from the last 6 months of 2008 through the first 6 months of 2009.

The percentage of adults living in wireless-only households has also been increasing steadily (see Figure). During the first 6 months of 2010, one of every four adults lived in wireless-only households. One year before that (i.e., during the first 6 months of 2009), one of every five adults lived in wireless-only households. And 2 years before that (i.e., during the first 6 months of 2007), only one of every eight adults lived in wireless-only households.

The percentage of children living in wireless-only households is also growing. The 3.1-percentage-point increase from the last 6 months of 2009 is not as large as the 4.6-percentage-point increase from the first 6 months of 2009 to the last 6 months of 2009. However, these increases represent the two largest 6-month increases observed since 2003, when NHIS began collecting data on wireless-only households.

The percentages of adults and children living without any telephone service have remained relatively unchanged over the past 3 years. Approximately 2.0% of households had no telephone service (neither wireless nor landline). Nearly 4 million adults (1.7%) and 1.2 million children (1.7%) lived in these households.

## Demographic Differences

The percentage of U.S. civilian noninstitutionalized adults living in wireless-only households is shown by selected demographic characteristics and by survey time period in Table 2. For the period January–June 2010,

- More than half of adults aged 25–29 years (51.3%) lived in households with only wireless telephones. This is the first time that the number of adults in wireless-only households has exceeded the number of adults in landline households in any age range examined.



- Two in five adults aged 18–24 years (39.9%) or 30–34 years (40.4%) lived in households with only wireless telephones. As age increased from 35 years, the percentage of adults living in households with only wireless telephones decreased: 27.0% for adults aged 35–44; 16.9% for adults aged 45–64; and 5.4% for adults aged 65 and over.
- More than two in three adults living only with unrelated adult roommates (69.4%) were in households with only wireless telephones. This is the highest prevalence rate for the population subgroups examined.
- Nearly half of all adults renting their home (47.1%) had only wireless telephones. Adults renting their home were more likely than adults owning their home (15.5%) to be living in households with only wireless telephones.
- Men (26.2%) were more likely than women (23.7%) to be living in households with only wireless telephones.
- Adults living in poverty (39.3%) and adults living near poverty (32.9%) were more likely than higher income adults (21.7%) to be living in households with only wireless telephones.
- Adults living in the Midwest (26.6%), South (29.3%), and West (23.5%) were more likely than adults living in the Northeast (15.8%) to be living in households with only wireless telephones.
- Hispanic adults (34.7%) were more likely than non-Hispanic white adults (22.7%) or non-Hispanic black adults (28.5%) to be living in households with only wireless telephones.

## Demographic Distributions

The demographic differences noted in the previous section are based on the distribution of household

telephone status within each demographic group. When examining the population of wireless-only adults, some readers may instead wish to consider the distribution of various demographic characteristics within the wireless-only adult population. For example, although young adults aged 18–29 years were more likely than older adults to live in households with only wireless telephones, these young adults made up fewer than half (39.8%) of all wireless-only adults. Young adults were a minority among all wireless-only adults because young adults made up only 22% of the total adult population.

Table 3 presents the percent distribution of selected demographic characteristics for adults living in households with only wireless telephones, by survey time period. The estimates in this table reveal that the distributions of selected demographic characteristics changed little over the 4-year period shown. The exceptions were related to sex, age, employment status, and household structure. From 2007 to the first 6 months of 2010,

- The proportion of women among all wireless-only adults increased from approximately 47% to 49.1%.
- Among all wireless-only adults, the proportion of adults aged 30 years and over has steadily increased. In the first 6 months of 2010, the majority of wireless-only adults (60.2%) were aged 30 and over, up from 49.3% in the first 6 months of 2007.
- The proportion of employed adults among all wireless-only adults has decreased from 77.1% to 69.7%. Over the same time period, the proportion of adults with an employment status other than working, keeping house, or going to school increased. These adults (largely unemployed or retired) made up 19.5% of wireless-only adults in the first 6 months of 2010, up from 12.1% in the first 6 months of 2007.
- Among all wireless-only adults, the proportion of adults living with children has steadily increased. In

the first 6 months of 2010, 40.9% of wireless-only adults were living with children, up from 34.6% in the first 6 months of 2007.

## Selected Health Measures by Household Telephone Status

Many health surveys, political polls, and other research are conducted using random-digit-dial telephone surveys. Until recently, these surveys did not include wireless telephone numbers in their samples. Now, despite operational challenges, most major survey research organizations are including wireless telephone numbers when conducting random-digit-dial telephone surveys. If they did not, the exclusion of households with only wireless telephones (along with the small proportion of households that have no telephone service) could bias results. This bias—known as coverage bias—could exist if there are differences between persons with and without landline telephones for the substantive variables of interest.

The NHIS Early Release Program updates and releases estimates for 15 key health indicators every 3 months. Table 4 presents estimates by household telephone status (landline, wireless-only, or without any telephone service) for all but two of these measures. (“Pneumococcal vaccination” and “personal care needs” were not included because these indicators are limited to older adults aged 65 years and over.) For the period January–June 2010,

- The prevalence of having five or more alcoholic drinks in 1 day during the past year among wireless-only adults (33.1%) was substantially higher than the prevalence among adults living in landline households (19.4%). Wireless-only adults were also more likely to be current smokers than were adults living in landline households.
- Compared with adults living in landline households, wireless-only



adults were more likely to report that their health status was excellent or very good, more likely to engage in regular leisure-time physical activity, and less likely to have ever been diagnosed with diabetes.

- The percentage without health insurance coverage at the time of interview among wireless-only adults under 65 years of age (28.5%) was more than twice as high as the percentage among adults in that age group living in landline households (14.0%).
- Compared with adults living in landline households, wireless-only adults were more likely to have experienced financial barriers to obtaining needed health care, and they were less likely to have a usual place to go for medical care. Wireless-only adults were also less likely to have received an influenza vaccination during the previous year.
- Wireless-only adults (48.7%) were more likely than adults living in landline households (36.5%) to have ever been tested for human immunodeficiency virus (HIV), the virus that causes AIDS.

The potential for bias due to undercoverage remains a real and growing threat to surveys conducted only on landline telephones. Telephone surveys limited to landline households may still be viable for health surveys of all adults and for surveys of most subpopulations regarding their health status (see Blumberg and Luke, 2009). However, for health-related behaviors, health care service use indicators, and health care access measures (such as those in Table 4), caution is warranted when using landline surveys to draw inferences about subpopulations more likely to be wireless-only (e.g., young or low-income adults).

## Wireless-mostly Households

The potential for bias due to undercoverage is not the only threat to surveys conducted on landline

telephones. Researchers are also concerned that some people living in households with landlines cannot be reached on those landlines because they rely on wireless telephones for all or almost all of their calls.

In 2007, a new question was added to the survey for persons living in families with both landline and cellular telephones. The respondent for the family was asked to consider all of the telephone calls his or her family receives and to report whether "all or almost all calls are received on cell phones, some are received on cell phones and some on regular phones, or very few or none are received on cell phones." This new question permits the identification of persons living in "wireless-mostly" households—defined as households with both landline and cellular telephones in which all families receive all or almost all calls on cell phones.

Among households with both landline and wireless telephones, 27.3% received all or almost all calls on the wireless telephones, based on data for the period January–June 2010. These wireless-mostly households make up 15.9% of all households.

The percentage of adults living in wireless-mostly households has been increasing (see Table 5). During the first 6 months of 2010, approximately 40 million adults (17.7%) lived in wireless-mostly households. This prevalence estimate was higher than the estimate for the last 6 months of 2009 (16.3%) and substantially greater than the estimate for the first 6 months of 2007 (14.0%).

Table 5 presents the percentage of adults living in wireless-mostly households, by selected demographic characteristics and by survey time period. For the period January–June 2010,

- Adults working at a job or business (20.8%) and adults going to school (23.5%) were more likely to be living in wireless-mostly households than were adults keeping house (14.5%) or with

another employment status such as retired or unemployed (11.5%).

- Adults with college degrees (20.3%) were more likely to be living in wireless-mostly households than were high school graduates (16.0%) or adults with less education (12.0%).
- Adults living with children (23.3%) were more likely than adults living alone (10.1%) or with only adult relatives (15.7%) to be living in wireless-mostly households.
- Adults living in poverty (11.0%) and adults living near poverty (12.6%) were less likely than higher income adults (20.8%) to be living in wireless-mostly households.
- Adults renting their home (13.9%) were less likely to be living in wireless-mostly households than were adults owning their home (19.6%).

Research by Boyle, Lewis, and Tefft (2009) suggests that the majority of adults living in wireless-mostly households are reachable using their landline telephone number. NHIS data cannot be used to estimate the proportion of wireless-only adults who are unreachable or to estimate the potential for bias due to their exclusion from landline surveys.

## References and Other Sources of Information

For more information about the potential implications for health surveys that are based on landline telephone interviews, see

- Blumberg SJ, Luke JV. Reevaluating the need for concern regarding noncoverage bias in landline surveys. *Am J Public Health* 99:1806–10. 2009. <http://aph.pphublications.org/cgi/content/abstract/99/10/1806>.
- Blumberg SJ, Luke JV, Cynamon ML, Frankel MR. Recent trends in household telephone coverage in the United States. In: Lepkowski JM et al., eds, *Advances in telephone*





survey methodology. New York: John Wiley and Sons. pp 56–86. 2008.

- Boyle JM, Lewis F, Tefft B. Cell phone mainly households: Coverage and reach for telephone surveys using RDD landline samples. Survey Practice [serial online]. 2009. Available from: <http://surveypractice.org/2009/12/09/cell-phone-and-landlines/>.

When including wireless telephone numbers in random-digit-dial surveys, researchers have many methodological, statistical, operational, legal, and ethical issues to consider. These issues have recently been described in a report from a task force of the American Association for Public Opinion Research (AAPOR). That task force included staff from the Centers for Disease Control and Prevention, and its report is available online:

- AAPOR Cell Phone Task Force. New considerations for survey researchers when planning and conducting RDD telephone surveys in the U.S. with respondents reached via cell phone numbers [online]. American Association for Public Opinion Research (AAPOR). 2010. [http://apor.org/cell\\_phone\\_task\\_force.htm](http://apor.org/cell_phone_task_force.htm).

For more information about NHIS and the NHIS Early Release Program, or to find other Early Release reports, please see the following:

- <http://www.cdc.gov/nchs/nhis.htm>.
- <http://www.cdc.gov/nchs/nhis/releases.htm>.
- Botman SL, Moore TF, Moriarity CL, Parsons VL. Design and estimation for the National Health Interview Survey, 1995–2004. National Center for Health Statistics. Vital Health Stat 2(130). 2000. Available from: [http://www.cdc.gov/nchs/data/series/sr\\_02/sr02\\_130.pdf](http://www.cdc.gov/nchs/data/series/sr_02/sr02_130.pdf).

## Suggested Citation

Blumberg SJ, Luke JV. Wireless substitution: Early release of estimates from the National Health Interview Survey, January–June 2010. National Center for Health Statistics. December 2010. Available from: <http://www.cdc.gov/nchs/nhis.htm>.



**Table 1. Percent distribution of household telephone status, by date of interview, for households, adults, and children: United States, January 2007–June 2010**

Date of interview	Household telephone status						Total
	Landline households with a wireless telephone	Landline households without a wireless telephone	Landline households with unknown wireless telephone status	Nonlandline households with unknown wireless telephone status	Wireless-only households	Phoneless households	
	Number of households (unweighted)						
Jan–Jun 2007	58.9	23.8	1.7	0.1	13.6	1.9	100.0
Jul–Dec 2007	58.8	21.8	1.3	0.1	15.8	2.2	100.0
Jan–Jun 2008	58.5	20.6	0.9	0.0	17.5	2.5	100.0
Jul–Dec 2008	59.6	17.4	0.9	0.0	20.2	1.9	100.0
Jan–Jun 2009	59.4	15.5	0.4	0.0	22.7	1.9	100.0
Jul–Dec 2009	58.2	14.9	0.4	0.0	24.5	2.0	100.0
Jan–Jun 2010	58.1	12.9	0.3	0.0	26.6	2.0	100.0
95% confidence interval <sup>1</sup>	56.97 – 59.18	12.24 – 13.67	0.22 – 0.40	0.02 – 0.10	25.60 – 27.62	1.78 – 2.35	
	Percent of households						
	Number of adults (unweighted)						
Jan–Jun 2007	63.3	20.8	1.7	0.1	12.6	1.6	100.0
Jul–Dec 2007	63.2	19.1	1.2	0.1	14.5	1.9	100.0
Jan–Jun 2008	63.0	17.9	0.8	0.0	16.1	2.1	100.0
Jul–Dec 2008	63.7	15.1	1.0	0.0	18.4	1.7	100.0
Jan–Jun 2009	63.5	13.4	0.4	0.0	21.1	1.5	100.0
Jul–Dec 2009	62.5	12.6	0.3	0.0	22.9	1.7	100.0
Jan–Jun 2010	62.2	10.9	0.3	0.0	24.9	1.7	100.0
95% confidence interval <sup>1</sup>	61.00 – 63.32	10.19 – 11.56	0.20 – 0.37	0.01 – 0.08	23.97 – 25.91	1.49 – 2.04	

See footnotes at end of table.



Date of interview	Household telephone status					Total
	Landline households with a wireless telephone	Landline households without a wireless telephone	Landline households with unknown wireless telephone status	Nonlandline households with unknown wireless telephone status	Wireless-only households	
	Percent of children					
	Number of children (unweighted)					
Jan-Jun 2007	68.3	16.4	1.6	0.0	11.9	100.0
Jul-Dec 2007	68.5	13.8	1.1	0.0	14.4	100.0
Jan-Jun 2008	67.3	12.6	0.6	0.0	17.0	100.0
Jul-Dec 2008	67.1	11.1	0.7	0.0	18.7	100.0
Jan-Jun 2009	67.6	9.1	0.3	0.0	21.3	100.0
Jul-Dec 2009	63.4	8.5	0.2	0.0	25.9	100.0
Jan-Jun 2010	62.8	6.4	0.1	-	29.0	100.0
95% confidence interval <sup>1</sup>	61.04 - 64.45	5.65 - 7.25	0.06 - 0.29	...	27.51 - 30.52	1.35 - 2.16

0.0 Quantity is more than zero but less than 0.05.

- Quantity zero.

... Category not applicable.

<sup>1</sup>Confidence intervals refer to the time period January 2010 through June 2010.

DATA SOURCE: CDC/NCHS, National Health Interview Survey, January 2007-June 2010. Data are based on household interviews of a sample of the civilian noninstitutionalized population.



**Table 2. Percentage of adults living in wireless-only households, by selected demographic characteristics and by calendar half-years: United States, January 2007–June 2010**

Demographic characteristic	Calendar half-year								95% confidence interval <sup>1</sup>
	Jan–Jun 2007	Jul–Dec 2007	Jan–Jun 2008	Jul–Dec 2008	Jan–Jun 2009	Jul–Dec 2009	Jan–Jun 2010		
	Percent								
<b>Race/ethnicity</b>									
Hispanic or Latino, any race(s)	18.0	19.3	21.6	25.0	28.2	30.4	34.7	32.66 – 36.79	
Non-Hispanic white, single race	11.3	12.9	14.6	16.6	19.7	21.0	22.7	21.52 – 23.82	
Non-Hispanic black, single race	14.3	18.3	18.5	21.4	21.3	25.0	28.5	26.58 – 30.54	
Non-Hispanic Asian, single race	10.6	12.1	16.5	17.8	18.0	20.6	18.8	15.94 – 21.97	
Non-Hispanic other, single race	22.8	17.5	12.8	17.3	20.6	26.5	*16.1	6.97 – 33.00	
Non-Hispanic multiple race	17.3	22.8	22.3	22.5	28.7	26.9	36.0	29.99 – 42.45	
<b>Age</b>									
18–24 years	27.9	30.6	31.4	33.1	37.6	37.8	39.9	37.55 – 42.38	
25–29 years	30.6	34.5	35.7	41.5	45.8	48.6	51.3	48.91 – 53.70	
30–34 years	16.5	22.0	27.0	30.4	33.5	37.2	40.4	38.05 – 42.88	
35–44 years	10.8	12.5	15.5	17.5	21.5	23.9	27.0	25.42 – 28.64	
45–64 years	7.1	8.0	9.2	11.6	12.8	14.9	16.9	15.99 – 17.90	
65 years and over	2.0	2.2	2.8	3.3	5.4	5.2	5.4	4.72 – 6.21	
<b>Sex</b>									
Male	13.8	15.9	18.0	20.0	22.5	24.5	26.2	25.19 – 27.32	
Female	11.5	13.2	14.4	17.0	19.8	21.3	23.7	22.69 – 24.74	
<b>Education</b>									
Some high school or less	14.6	15.4	16.1	18.8	22.2	24.7	28.6	26.79 – 30.51	
High school graduate or GED <sup>2</sup>	11.8	13.4	15.2	17.8	20.8	22.9	23.6	22.38 – 24.95	
Some post-high school, no degree	14.7	17.0	19.0	20.1	23.6	25.0	26.5	25.25 – 27.88	
4-year college degree or higher	10.8	12.7	14.3	17.7	18.2	19.5	22.7	21.05 – 24.47	
<b>Employment status last week</b>									
Working at a job or business	15.0	16.6	19.0	21.5	24.3	26.0	28.5	27.32 – 29.74	
Keeping house	9.5	12.8	12.6	16.0	16.6	20.5	22.7	20.45 – 25.05	
Going to school	21.3	28.9	21.5	23.5	29.7	29.2	33.2	29.61 – 37.01	
Something else (incl. unemployed)	6.4	7.6	8.9	11.0	14.0	15.9	16.8	15.82 – 17.80	

See footnotes at end of table.



Demographic characteristic	Calendar half-year								95% confidence interval <sup>1</sup>
	Jan-Jun 2007	Jul-Dec 2007	Jan-Jun 2008	Jul-Dec 2008	Jan-Jun 2009	Jul-Dec 2009	Jan-Jun 2010	Jan-Jun 2010	
<b>Household structure</b>									
Adult living alone	20.3	22.9	24.6	28.1	30.8	32.9	33.5	33.5	31.55 - 35.42
Unrelated adults, no children	55.3	56.9	63.1	60.6	68.5	62.9	69.4	69.4	62.10 - 75.77
Related adults, no children	9.8	11.0	12.5	14.7	16.8	17.1	19.1	19.1	18.07 - 20.19
Adult(s) with children	11.3	13.0	15.1	17.2	20.4	24.1	26.9	26.9	25.44 - 28.38
<b>Household poverty status<sup>3</sup></b>									
Poor	21.6	27.4	26.0	30.9	33.0	36.3	39.3	39.3	36.31 - 42.27
Near poor	18.5	20.8	22.6	23.8	26.5	29.0	32.9	32.9	30.79 - 35.00
Not poor	10.6	11.9	14.2	16.0	18.9	19.6	21.7	21.7	20.58 - 22.80
<b>Geographic region<sup>4</sup></b>									
Northeast	8.8	10.0	9.8	11.4	14.6	15.1	15.8	15.8	13.92 - 17.97
Midwest	14.0	15.3	17.8	20.8	21.9	25.6	26.6	26.6	24.74 - 28.62
South	14.9	17.1	19.6	21.3	25.0	25.4	29.3	29.3	27.62 - 31.08
West	10.9	12.9	13.7	17.2	19.0	22.2	23.5	23.5	21.79 - 25.35
<b>Metropolitan statistical area status</b>									
Metropolitan	13.7	15.5	17.5	19.7	22.4	24.2	26.5	26.5	25.36 - 27.67
Not metropolitan	8.4	10.0	10.9	13.5	16.5	17.9	19.3	19.3	17.37 - 21.32
<b>Home ownership status<sup>5</sup></b>									
Owned or being bought	6.7	7.3	9.0	9.9	12.8	14.0	15.5	15.5	14.66 - 16.44
Renting	28.2	30.9	33.6	39.2	40.9	43.1	47.1	47.1	45.25 - 48.87
Other arrangement	22.5	23.2	23.4	17.7	33.6	33.8	34.9	34.9	28.97 - 41.28
Number of wireless-only adults in survey sample (unweighted)	3,819	3,558	4,939	4,426	5,078	9,401	8,659	8,659	

\*Estimate has a relative standard error greater than 30% and does not meet National Center for Health Statistics (NCHS) standards for reliability.

<sup>1</sup>Confidence intervals refer to the time period January 2010 through June 2010.

<sup>2</sup>GED is General Educational Development high school equivalency diploma.

<sup>3</sup>Poverty status is based on household income and household size using the U.S. Census Bureau's poverty thresholds. "Poor" persons are defined as those below the poverty threshold. "Near poor" persons have incomes of 100% to less than 200% of the poverty threshold. "Not poor" persons have incomes of 200% of the poverty threshold or greater. Early Release estimates stratified by poverty status are based on reported income only and may differ from similar estimates produced later that are based on both reported and imputed income. NCHS imputes income when income is unknown, but the imputed income file is not available until a few months after the annual release of National Health



Interview Survey microdata. For households with multiple families, household income and household size were calculated as the sum of the multiple measures of family income and family size.

<sup>4</sup>In the geographic classification of the U.S. population, states are grouped into the following four regions used by the U.S. Census Bureau: *Northeast* includes Maine, Vermont, New Hampshire, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, and Pennsylvania; *Midwest* includes Ohio, Illinois, Indiana, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Kansas, and Nebraska; *South* includes Delaware, Maryland, District of Columbia, West Virginia, Virginia, Kentucky, Tennessee, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Arkansas, and Texas; and *West* includes Washington, Oregon, California, Nevada, New Mexico, Arizona, Idaho, Utah, Colorado, Montana, Wyoming, Alaska, and Hawaii.

<sup>5</sup>For households with multiple families, home ownership status was determined by considering the reported home ownership status for each family. If any family reported owning the home, then the household level variable was classified as "owned or being bought" for all persons living in the household. If one family reported renting the home and another family reported "other arrangement," then the household level variable was classified as "other arrangement" for all persons living in the household.

DATA SOURCE: CDC/NCHS, National Health Interview Survey, January 2007–June 2010. Data are based on household interviews of a sample of the civilian noninstitutionalized population.



**Table 3. Percent distribution of selected demographic characteristics, by date of interview, for adults living in wireless-only households: United States, January 2007–June 2010**

Demographic characteristic	Calendar half-year						95% confidence interval <sup>1</sup>	
	Jan–Jun 2007	Jul–Dec 2007	Jan–Jun 2008	Jul–Dec 2008	Jan–Jun 2009	Jul–Dec 2009		Jan–Jun 2010
<b>Race/ethnicity</b>								
Hispanic or Latino, any race(s)	18.9	18.0	18.1	18.5	18.4	18.5	19.4	17.66–21.23
Non-Hispanic white, single race	61.5	61.2	62.2	61.9	63.8	62.5	61.6	59.54–63.67
Non-Hispanic black, single race	12.9	14.4	13.2	13.3	11.7	12.7	13.3	11.96–14.83
Non-Hispanic Asian, single race	3.8	3.8	4.6	4.4	3.9	4.1	3.5	2.96–4.05
Non-Hispanic other, single race	*1.6	*0.8	0.6	0.6	0.7	1.0	0.6	0.38–0.84
Non-Hispanic multiple race	1.3	1.8	1.3	1.2	1.5	1.3	1.6	1.32–2.03
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
<b>Age</b>								
18–24 years	28.4	27.2	24.9	23.1	22.9	21.2	20.7	19.40–22.07
25–29 years	22.3	22.1	20.5	21.0	19.9	19.6	19.1	18.04–20.13
30–34 years	11.3	13.0	14.3	14.0	13.6	14.0	13.9	13.02–14.91
35–44 years	16.3	16.3	17.8	17.4	18.4	18.6	18.9	17.95–19.97
45–64 years	19.1	18.9	19.6	21.6	21.0	22.8	23.7	22.56–24.88
65 years and over	2.6	2.5	2.9	2.9	4.3	3.8	3.7	3.20–4.18
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
<b>Sex</b>								
Male	52.9	53.0	53.7	52.4	51.4	51.8	50.9	49.94–51.81
Female	47.1	47.0	46.3	47.6	48.6	48.2	49.1	48.19–50.06
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
<b>Education</b>								
Some high school or less	17.5	16.2	15.5	15.8	15.5	16.0	16.6	15.42–17.91
High school graduate or GED <sup>2</sup>	27.5	27.5	27.8	27.2	27.7	28.9	26.7	25.50–28.02
Some post-high school, no degree	32.7	32.9	33.9	31.7	33.3	32.9	32.0	30.63–33.33
4-year college degree or higher	22.3	23.4	22.8	25.3	23.5	22.3	24.7	23.04–26.36
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

See footnotes at end of table.



Calendar half-year

Demographic characteristic	Calendar half-year								95% confidence interval <sup>1</sup>
	Jan-Jun 2007	Jul-Dec 2007	Jan-Jun 2008	Jul-Dec 2008	Jan-Jun 2009	Jul-Dec 2009	Jan-Jun 2010		
<b>Employment status last week</b>									
Working at a job or business	77.1	74.3	75.9	74.5	71.1	69.1	69.7	68.32 - 71.00	
Keeping house	5.2	5.6	5.0	5.3	4.5	5.3	5.3	4.78 - 5.79	
Going to school	5.1	5.8	4.1	3.7	4.6	4.4	4.3	3.75 - 4.91	
Something else (incl. unemployed)	12.1	13.1	13.7	15.4	18.7	20.2	19.5	18.41 - 20.64	
Unknown, not reported	0.6	*1.3	1.4	*1.1	1.1	1.1	1.3	0.91 - 1.77	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
<b>Household structure</b>									
Adult living alone	25.1	24.4	23.2	23.6	22.1	21.9	19.9	18.57 - 21.28	
Unrelated adults, no children	6.0	7.7	6.4	5.2	5.4	4.1	4.1	3.35 - 5.11	
Related adults, no children	34.4	34.2	35.1	36.9	36.0	34.0	35.1	33.46 - 36.77	
Adult(s) with children	34.6	33.7	35.3	34.3	36.4	40.0	40.9	38.95 - 42.80	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
<b>Household poverty status<sup>2</sup></b>									
Poor	14.6	16.1	14.1	15.5	15.5	16.4	16.5	14.91 - 18.19	
Near poor	18.4	18.4	18.1	16.8	17.9	18.5	19.8	18.51 - 21.11	
Not poor	50.5	49.7	53.4	53.3	56.7	53.0	53.2	51.19 - 55.17	
Unknown, not reported	16.5	15.8	14.4	14.4	10.0	12.2	10.6	9.44 - 11.79	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
<b>Geographic region<sup>4</sup></b>									
Northeast	12.7	12.4	10.7	11.3	12.2	12.1	11.4	9.97 - 13.05	
Midwest	25.1	24.6	25.0	26.0	23.9	26.0	24.0	21.93 - 26.22	
South	42.6	42.7	45.2	41.1	43.8	39.5	42.3	39.78 - 44.89	
West	19.7	20.4	19.1	21.6	20.1	22.4	22.3	20.13 - 24.55	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
<b>Metropolitan statistical area status</b>									
Metropolitan	86.1	86.9	85.9	85.1	83.3	83.7	83.2	80.68 - 85.40	
Not metropolitan	13.9	13.1	14.1	14.9	16.7	16.3	16.8	14.60 - 19.32	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

See footnotes at end of table.





Demographic characteristic	Calendar half-year								95% confidence interval <sup>1</sup>
	Jan-Jun 2007	Jul-Dec 2007	Jan-Jun 2008	Jul-Dec 2008	Jan-Jun 2009	Jul-Dec 2009	Jan-Jun 2010		
Home ownership status <sup>5</sup>									
Owned or being bought	37.7	34.8	39.2	37.1	42.1	42.3	43.7	41.52-45.92	
Renting	59.0	61.3	58.1	61.1	55.0	54.3	53.5	51.31-55.72	
Other arrangement	3.3	3.8	2.7	1.8	2.9	3.3	2.8	2.25-3.39	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
Number of wireless-only adults in survey sample (unweighted)	3,819	3,558	4,939	4,426	5,078	9,401	8,659		

\*Estimate has a relative standard error greater than 30% and does not meet National Center for Health Statistics (NCHS) standards for reliability.

<sup>1</sup>Confidence intervals refer to the time period January 2010 through June 2010.

<sup>2</sup>GED is General Educational Development high school equivalency diploma.

<sup>3</sup>Poverty status is based on household income and household size using the U.S. Census Bureau's poverty thresholds. "Poor" persons are defined as those below the poverty threshold. "Near poor" persons have incomes of 100% to less than 200% of the poverty threshold. "Not poor" persons have incomes of 200% of the poverty threshold or greater. Early Release estimates stratified by poverty status are based on reported income only and may differ from similar estimates produced later that are based on both reported and imputed income. NCHS imputes income when income is unknown, but the imputed income file is not available until a few months after the annual release of National Health Interview Survey microdata. For households with multiple families, household income and household size were calculated as the sum of the multiple measures of family income and family size.

<sup>4</sup>In the geographic classification of the U.S. population, states are grouped into the following four regions used by the U.S. Census Bureau: *Northeast* includes Maine, Vermont, New Hampshire, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, and Pennsylvania; *Midwest* includes Ohio, Illinois, Indiana, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Kansas, and Nebraska; *South* includes Delaware, Maryland, District of Columbia, West Virginia, Virginia, Kentucky, Tennessee, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Oklahoma, Arkansas, and Texas; and *West* includes Washington, Oregon, California, Nevada, New Mexico, Arizona, Idaho, Utah, Colorado, Montana, Wyoming, Alaska, and Hawaii.

<sup>5</sup>For households with multiple families, home ownership status was determined by considering the reported home ownership status for each family. If any family reported owning the home, then the household level variable was classified as "owned or being bought" for all persons living in the household. If one family reported renting the home and another family reported "other arrangement," then the household level variable was classified as "other arrangement" for all persons living in the household.

DATA SOURCE: CDC/NCHS, National Health Interview Survey, January 2007-June 2010. Data are based on household interviews of a sample of the civilian noninstitutionalized population.



**Table 4. Prevalence rates (and 95% confidence intervals) for selected measures of health-related behaviors, health status, health care service use, and health care access for adults aged 18 years and over, by household telephone status: United States, January–June 2010**

Measure	Household telephone service		
	Landline household <sup>1</sup>	Wireless-only household	Phoneless household
Percent (95% confidence interval)			
<b>Health-related behaviors</b>			
Five or more alcoholic drinks in 1 day at least once in past year <sup>2</sup>	19.4 (18.31 – 20.47)	33.1 (31.08 – 35.13)	22.4 (16.95 – 28.88)
Current smoker <sup>3</sup>	17.2 (16.20 – 18.25)	26.7 (24.95 – 28.60)	28.5 (23.10 – 34.63)
Engaged in regular leisure-time physical activity <sup>4</sup>	33.5 (32.24 – 34.69)	37.4 (35.39 – 39.37)	24.1 (18.91 – 30.08)
<b>Health status</b>			
Health status described as excellent or very good <sup>5</sup>	59.3 (58.01 – 60.61)	63.8 (61.97 – 65.59)	50.9 (43.67 – 58.10)
Experienced serious psychological distress in past 30 days <sup>6</sup>	3.1 (2.71 – 3.53)	4.1 (3.41 – 4.89)	5.7 (3.48 – 9.33)
Obese (adults aged 20 years and over) <sup>7</sup>	28.9 (27.71 – 30.08)	26.4 (24.91 – 27.91)	26.7 (20.26 – 34.21)
Asthma episode in past year <sup>8</sup>	4.1 (3.65 – 4.59)	3.8 (3.27 – 4.53)	6.0 (3.52 – 9.90)
Ever diagnosed with diabetes <sup>9</sup>	10.0 (9.31 – 10.74)	5.7 (4.95 – 6.62)	7.7 (5.00 – 11.64)
<b>Health care service use</b>			
Received influenza vaccine during past year <sup>10</sup>	39.2 (37.77 – 40.64)	23.8 (22.19 – 25.40)	26.8 (21.02 – 33.58)
Ever been tested for HIV <sup>11</sup>	36.5 (35.27 – 37.74)	48.7 (46.81 – 50.59)	38.7 (32.20 – 45.69)
<b>Health care access</b>			
Has a usual place to go for medical care <sup>12</sup>	87.5 (86.66 – 88.39)	70.9 (68.98 – 72.82)	70.9 (64.42 – 76.67)
Failed to obtain needed medical care in past year due to financial barriers <sup>13</sup>	7.0 (6.41 – 7.69)	14.1 (12.94 – 15.42)	15.4 (11.34 – 20.51)
Currently uninsured (adults aged 18–64 years) <sup>14</sup>	14.0 (12.99 – 14.98)	28.5 (26.71 – 30.36)	33.8 (27.58 – 40.62)
Number of adults in survey sample (unweighted)	9,669	4,145	298

<sup>1</sup>In this analysis, landline households include households that also have wireless telephone service.

<sup>2</sup>A year is defined as the 12 months prior to interview. The analyses excluded adults with unknown alcohol consumption (about 2% of respondents each year).

<sup>3</sup>Current smokers were defined as those who had smoked more than 100 cigarettes in their lifetime and now smoke every day or some days. The analyses excluded persons with unknown smoking status (about 1% of respondents each year).

<sup>4</sup>Regular leisure-time physical activity is defined as engaging in light-moderate leisure-time physical activity for greater than or equal to 30 minutes at a frequency greater than or equal to five times per week or engaging in vigorous leisure-time physical activity for greater than or equal to 20 minutes at a frequency greater than or equal to three times per week. Persons who were known to have not met the frequency recommendations are classified as “not regular,” regardless of duration. The analyses excluded persons with unknown physical activity participation (about 3% of respondents each year).

<sup>5</sup>Health status data were obtained by asking respondents to assess their own health and that of family members living in the same household as excellent, very good, good, fair, or poor. The analyses excluded persons with unknown health status (about 0.5% of respondents each year).

<sup>6</sup>Six psychological distress questions are included in the National Health Interview Survey. These questions ask how often during the past 30 days a respondent experienced certain symptoms of psychological distress (feeling so sad that nothing could cheer you up, nervous, restless or fidgety, hopeless, worthless, that everything was an effort). The response codes (0–4) of the six items for each person were equally weighted and summed. A value of 13 or more for this scale indicates that at least one symptom was experienced “most of the time” or “all of the time” and is used here to define serious psychological distress.



<sup>7</sup>Obesity is defined as a body mass index (BMI) of 30 kg/m<sup>2</sup> or more. The measure is based on self-reported height and weight. The analyses excluded people with unknown height or weight (about 4% of respondents each year). Estimates of obesity are presented for adults aged 20 years and over because the Healthy People 2010 objectives (<http://www.healthypeople.gov>) for healthy weight among adults define adults as persons aged 20 and over.

<sup>8</sup>Information on an episode of asthma or an asthma attack during the past year is self-reported by adults aged 18 years and over. A year is defined as the 12 months prior to interview. The analyses excluded people with unknown asthma episode status (about 0.3% of respondents each year).

<sup>9</sup>Prevalence of diagnosed diabetes is based on self-report of ever having been diagnosed with diabetes by a doctor or other health professional. Persons reporting "borderline" diabetes status and women reporting diabetes only during pregnancy were not coded as having diabetes in the analyses. The analyses excluded persons with unknown diabetes status (about 0.1% of respondents each year).

<sup>10</sup>Receipt of flu shots and receipt of nasal spray flu vaccinations were included in the calculation of flu vaccination estimates. Responses to these two flu vaccination questions do not indicate when the subject received the flu vaccination during the 12 months preceding the interview. In addition, estimates are subject to recall error, which will vary depending on when the question is asked because the receipt of a flu vaccination is seasonal. The analyses excluded those with unknown flu vaccination status (about 1% of respondents each year).

<sup>11</sup>Individuals who received human immunodeficiency virus (HIV) testing solely as a result of blood donation were considered not to have been tested for HIV. The analyses excluded those with unknown HIV test status (about 4% of respondents each year).

<sup>12</sup>The usual place to go for medical care does not include a hospital emergency room. The analyses excluded persons with an unknown usual place to go for medical care (about 0.6% of respondents each year).

<sup>13</sup>A year is defined as the 12 months prior to interview. The analyses excluded persons with unknown responses to the question on failure to obtain needed medical care due to cost (about 0.5% of respondents each year).

<sup>14</sup>A person was defined as uninsured if he or she did not have any private health insurance, Medicare, Medicaid, Children's Health Insurance Program (CHIP), state-sponsored or other government-sponsored health plan, or military plan at the time of the interview. A person was also defined as uninsured if he or she had only Indian Health Service coverage or had only a private plan that paid for one type of service, such as accidents or dental care. The data on health insurance status were edited using an automated system based on logic checks and keyword searches. The analyses excluded persons with unknown health insurance status (about 1% of respondents each year).

DATA SOURCE: CDC/NCHS, National Health Interview Survey, January–June 2010. Data are based on household interviews of a sample of the civilian noninstitutionalized population.



**Table 5. Percentage of adults living in wireless-mostly households, by selected demographic characteristics and by calendar half-years: United States, July 2007–June 2010**

Demographic characteristic	Calendar half-year						95% confidence interval <sup>1</sup>
	Jul–Dec 2007	Jan–Jun 2008	Jul–Dec 2008	Jan–Jun 2009	Jul–Dec 2009	Jan–Jun 2010	
	Percent <sup>2</sup>						
Total	14.0	14.4	15.4	16.2	16.3	17.7	16.89 – 18.58
Race/ethnicity							
Hispanic or Latino, any race(s)	14.5	16.0	15.9	18.0	16.9	19.7	17.78 – 21.80
Non-Hispanic white, single race	13.2	14.2	14.9	15.6	16.1	17.2	16.22 – 18.13
Non-Hispanic black, single race	15.1	13.3	14.7	15.0	16.2	17.5	15.76 – 19.31
Non-Hispanic Asian, single race	20.3	16.4	20.3	19.6	18.5	20.8	18.01 – 23.95
Non-Hispanic other single race	*8.6	*10.1	15.5	22.9	*16.1	*12.3	5.20 – 26.38
Non-Hispanic multiple race	19.7	17.7	24.2	22.5	18.2	21.0	16.14 – 26.86
Age							
18–24 years	18.2	19.2	18.8	20.0	19.9	21.4	19.64 – 23.32
25–29 years	19.7	17.3	18.3	17.7	16.4	17.4	15.68 – 19.22
30–44 years	17.3	18.2	19.0	20.3	19.5	21.2	19.86 – 22.65
45–64 years	13.0	13.8	15.4	16.5	17.5	19.0	17.82 – 20.21
65 years and over	3.9	4.4	4.9	5.3	6.3	7.0	6.19 – 7.94
Sex							
Male	14.3	14.9	15.4	16.2	16.5	18.1	17.16 – 19.02
Female	13.6	14.0	15.2	16.1	16.2	17.4	16.55 – 18.26
Education							
Some high school or less	8.7	10.0	9.8	12.1	11.5	12.0	10.75 – 13.41
High school graduate or GED <sup>3</sup>	12.7	12.5	13.2	13.7	14.2	16.0	14.99 – 17.12
Some post-high school, no degree	16.6	17.0	18.6	17.7	18.1	20.1	18.94 – 21.40
4-year college degree or higher	16.2	17.1	18.0	19.7	19.7	20.3	18.93 – 21.64
Employment status last week							
Working at a job or business	16.8	17.3	18.4	19.5	19.7	20.8	19.85 – 21.80
Keeping house	10.4	11.9	11.9	12.7	15.1	14.5	12.68 – 16.43
Going to school	20.4	25.2	21.5	21.1	21.7	23.5	20.19 – 27.17
Something else (incl. unemployed)	6.7	6.6	7.8	9.0	9.0	11.5	10.56 – 12.43
Household structure							
Adult living alone	10.7	10.1	12.2	10.0	10.6	10.1	9.27 – 11.09
Unrelated adults, no children	20.1	*15.4	21.3	13.9	15.5	13.4	8.74 – 19.95
Related adults, no children	12.1	12.8	13.2	14.7	15.0	15.7	14.65 – 16.77
Adult(s) with children	17.2	18.1	19.2	20.5	20.2	23.3	21.95 – 24.71
Household poverty status <sup>4</sup>							
Poor	8.6	10.8	9.5	11.0	10.0	11.0	9.49 – 12.81
Near poor	11.4	10.3	11.3	12.0	12.7	12.6	11.20 – 14.12
Not poor	15.9	17.1	18.2	18.8	19.2	20.8	19.78 – 21.95
Geographic region <sup>5</sup>							
Northeast	11.7	13.8	12.0	15.3	14.9	17.1	15.12 – 19.28
Midwest	13.3	12.6	13.2	14.6	14.7	17.5	15.94 – 19.11
South	14.3	14.6	16.2	16.7	17.3	18.1	16.90 – 19.37
West	15.9	16.4	18.7	17.7	17.7	17.8	15.84 – 20.03

See footnotes at end of table.



Demographic characteristic	Calendar half-year						95% confidence interval <sup>1</sup>
	Jul-Dec 2007	Jan-Jun 2008	Jul-Dec 2008	Jan-Jun 2009	Jul-Dec 2009	Jan-Jun 2010	
Metropolitan statistical area status							
Metropolitan	14.7	15.0	15.8	16.9	16.8	18.0	17.12 – 19.01
Not metropolitan	10.9	12.1	13.4	13.5	14.5	16.5	14.67 – 18.60
Home ownership status <sup>6</sup>							
Owned or being bought	14.0	14.7	15.9	17.2	17.5	19.6	18.57 – 20.63
Renting	13.8	13.9	13.0	13.9	13.6	13.9	12.69 – 15.30
Other arrangement	14.1	14.8	24.6	13.8	15.8	10.8	7.53 – 15.16
Number of adults in survey sample who live in landline households with wireless telephones (unweighted)	15,356	18,664	14,816	14,886	24,904	20,610	

\* Estimate has a relative standard error greater than 30% and does not meet National Center for Health Statistics (NCHS) standards for reliability.

<sup>1</sup>Confidence intervals refer to the estimate of the percentage of adults living in wireless-mostly households for the time period January 2010 through June 2010.

<sup>2</sup>The sum of the percentage of adults in households that receive all or nearly all calls on wireless phones (shown here) and the percentage of adults in households that receive some or very few calls on wireless phones (data not shown) is equal to the percentage of adults living in landline households with wireless telephones (see Table 1).

<sup>3</sup>GED is General Educational Development high school equivalency diploma.

<sup>4</sup>Poverty status is based on household income and household size using the U.S. Census Bureau's poverty thresholds. "Poor" persons are defined as those below the poverty threshold. "Near poor" persons have incomes of 100% to less than 200% of the poverty threshold. "Not poor" persons have incomes of 200% of the poverty threshold or greater. Early Release estimates stratified by poverty status are based on reported income only and may differ from similar estimates produced later that are based on both reported and imputed income. NCHS imputes income when income is unknown, but the imputed income file is not available until a few months after the annual release of National Health Interview Survey microdata. For households with multiple families, household income and household size were calculated as the sum of the multiple measures of family income and family size.

<sup>5</sup>In the geographic classification of the U.S. population, states are grouped into the following four regions used by the U.S. Census Bureau: *Northeast* includes Maine, Vermont, New Hampshire, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, and Pennsylvania; *Midwest* includes Ohio, Illinois, Indiana, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Kansas, and Nebraska; *South* includes Delaware, Maryland, District of Columbia, West Virginia, Virginia, Kentucky, Tennessee, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Oklahoma, Arkansas, and Texas; and *West* includes Washington, Oregon, California, Nevada, New Mexico, Arizona, Idaho, Utah, Colorado, Montana, Wyoming, Alaska, and Hawaii.

<sup>6</sup>For households with multiple families, home ownership status was determined by considering the reported home ownership status for each family. If any family reported owning the home, then the household level variable was classified as "owned or being bought" for all persons living in the household. If one family reported renting the home and another family reported "other arrangement," then the household level variable was classified as "other arrangement" for all persons living in the household.

DATA SOURCE: CDC/NCHS, National Health Interview Survey, July 2007–June 2010. Data are based on household interviews of a sample of the civilian noninstitutionalized population.





**Exhibit JAA-G5**  
**To the Direct Testimony of**  
**James A. Appleby**  
**Filed on behalf of Sprint Nextel**  
**in Administrative Case No. 2010-00398**

<b>SAC</b>	<b>LECNAME</b>	<b>Service Area in Square Working Loops for</b>			<b>Lines/Square Mile</b>
		<b>Miles</b>	<b>USAC HC-05 3Q 2011</b>		
260408	GEARHEART COMM. DBA COALFIELDS TEL. CO.	118	5,869		49.56
260398	BRANDENBURG TEL. CO., INC.	639	22,147		34.68
260412	LEWISPORT TEL. CO., INC.	45	1,214		27.12
260419	THACKER/GRIGSBY TEL. CO., INC.	321	7,139		22.22
260406	FOOTHILLS RURAL TEL. COOP. CORP., INC.	855	15,157		17.73
260418	SOUTH CENTRAL RURAL TEL. COOP. CORP., INC.	1,507	26,222		17.40
260401	DUO COUNTY TEL. COOP., INC.	690	11,468		16.63
260421	WEST KY. RURAL TEL. COOP. CORP., INC.	893	14,284		16.00
260414	MOUNTAIN RURAL TEL. COOP. CORP., INC.	1,013	15,478		15.28
260415	PEOPLES RURAL TEL. COOP. CORP.	522	7,802		14.94
260396	BALLARD RURAL TEL. COOP. CORP., INC.	360	5,353		14.85
260413	LOGAN TEL. COOP., INC.	491	5,954		12.12
260411	LESLIE COUNTY TEL. CO., INC.	740	8,391		11.34
260417	SALEM TEL. CO.	260	1,842		7.08
<b>Average</b>		<b>8,454</b>	<b>148,320</b>		<b>17.54</b>

National Average Non-BOC Teledensity

9.56



**Exhibit JAA-G6**  
**To the Direct Testimony of**  
**James A. Appleby**  
**Filed on behalf of Sprint Nextel**  
**in Administrative Case No. 2010-00398**

<b>High Speed Internet Customer Penetration %</b>	<b>1st Qtr. 2007</b>	<b>4th Qtr. 2009</b>	<b>4th Qtr. 2010</b>	<b>Source:</b>
Access Lines (in thousands)	3,483.6	3,030.5	3,045.8	Windstream Financial Reporting Supplemental Data
High-Speed Internet Customers (in thousands)	784.5	1,132.1	1,302.9	Windstream Financial Reporting Supplemental Data
Customer Penetration %	22.5%	37.4%	42.8%	Calculation: Customers / Total Lines

<b>Estimated High Speed Internet Revenue:</b>	<b>4th Qtr. 2010</b>	<b>Source:</b>
Kentucky Access Lines (in thousands)	362,352	2010 from Verizon #11
Est. Kentucky Customers (in thousands)	155.0	Calc: 12-31-010 KY lines X Customer Penetration %
Est. Yield per Subscription Price Per Month	\$ 30.00	Market price
Est. Annual High Speed Internet Revenue for Windstream in Kentucky	\$ 55,801,113	Calculation: Customers X Price X 12

<b>Digital Television Customer Penetration %</b>	<b>4th Qtr. 2009</b>	<b>4th Qtr. 2010</b>	<b>Source:</b>
Digital Television Customers (in thousands)	369.4	433.5	4th Qtr. 2009 and 2010 Supplemental Data
Customer Penetration %	12.2%	14.2%	Calculation: TVSubs/ 4Q2009 Total Lines

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	2010					2009				
	Total	4th Qtr.	3rd Qtr.	2nd Qtr.	1st Qtr.	Total	4th Qtr.	3rd Qtr.	2nd Qtr.	1st Qtr.
<b>FINANCIAL RESULTS:</b>										
Service revenues:										
Business	\$ 1,945.8	\$ 492.8	\$ 487.8	\$ 484.1	\$ 481.1	\$ 1,935.4	\$ 483.6	\$ 482.4	\$ 485.7	\$ 483.7
Consumer	1,439.4	359.9	359.9	360.5	364.1	1,497.0	365.8	370.6	377.7	382.9
Wholesale	660.9	159.1	163.5	164.7	173.6	703.7	180.9	173.5	170.6	178.7
Total service revenues	4,046.1	1,006.8	1,011.2	1,009.3	1,018.8	4,136.1	1,030.3	1,026.5	1,034.0	1,045.3
Product sales	92.8	23.4	26.8	19.8	22.8	95.3	23.1	24.3	23.6	24.3
Total revenues and sales	\$ 4,138.9	\$ 1,030.2	\$ 1,038.0	\$ 1,029.1	\$ 1,041.6	\$ 4,231.4	\$ 1,053.4	\$ 1,050.8	\$ 1,057.6	\$ 1,069.6
<b>Costs and expenses:</b>										
Cost of services	\$ 1,505.6	\$ 374.3	\$ 381.2	\$ 374.4	\$ 375.7	\$ 1,580.1	\$ 387.3	\$ 397.7	\$ 399.8	\$ 395.3
Cost of products sold	78.9	18.0	22.7	18.8	19.4	83.9	19.6	21.6	20.8	21.9
Selling, general, administrative and other	571.5	135.1	140.2	146.5	149.7	617.5	150.1	154.5	156.5	156.4
Restructuring charges	7.7	7.0	0.2	0.5	9.1	1.8	1.8	7.5	(0.1)	(0.1)
Total costs and expenses excluding depreciation and amortization	2,163.7	534.4	544.3	540.2	544.8	2,290.6	558.8	581.3	577.0	573.5
OIBDA (B)	1,975.2	495.8	493.7	488.9	496.8	1,940.8	494.6	469.5	480.6	496.1
Depreciation and amortization	839.4	207.5	206.3	209.9	215.7	867.2	216.1	216.2	218.0	216.9
Operating income	\$ 1,135.8	\$ 288.3	\$ 287.4	\$ 279.0	\$ 281.1	\$ 1,073.6	\$ 278.5	\$ 253.3	\$ 262.6	\$ 279.2
Operating income Margin (C)	27.4%	28.0%	27.7%	27.1%	27.0%	25.4%	26.4%	24.1%	24.8%	26.1%
OIBDA margin (D)	47.7%	48.1%	47.6%	47.5%	47.7%	45.9%	47.0%	44.7%	45.4%	46.4%

	2010					2009				
	Total	4th Qtr.	3rd Qtr.	2nd Qtr.	1st Qtr.	Total	4th Qtr.	3rd Qtr.	2nd Qtr.	1st Qtr.
<b>SUPPLEMENTAL INFORMATION:</b>										
OIBDA	\$ 1,975.2	\$ 495.8	\$ 493.7	\$ 488.9	\$ 496.8	\$ 1,940.8	\$ 494.6	\$ 469.5	\$ 480.6	\$ 496.1
Pension expense	62.3	15.6	15.4	15.4	15.8	92.5	23.9	23.0	22.8	22.8
Restructuring charges	7.7	7.0	0.2	0.5	9.1	1.8	1.8	7.5	(0.1)	(0.1)
Stock-based compensation	18.9	4.6	4.7	4.8	4.8	26.2	5.7	5.6	8.0	6.9
Adjusted OIBDA (E)	2,064.1	\$ 523.0	\$ 514.1	\$ 509.6	\$ 517.4	\$ 2,068.6	\$ 526.0	\$ 505.6	\$ 511.3	\$ 525.7
Adjusted OIBDA margin (F)	49.9%	50.8%	49.5%	49.5%	49.7%	48.9%	49.9%	48.1%	48.3%	49.1%
<b>Revenues by type:</b>										
Voice and long distance	\$ 1,502.9	\$ 362.9	\$ 372.3	\$ 380.6	\$ 387.1	\$ 1,638.3	\$ 394.8	\$ 404.4	\$ 415.8	\$ 423.3
Data and integrated solutions	1,232.5	318.4	310.5	304.4	299.2	1,162.3	294.7	291.3	289.0	287.3
Special access	505.6	129.6	127.3	124.5	124.2	491.3	125.5	122.6	123.1	120.1
Switched access and USF	617.0	149.2	152.8	153.4	161.6	652.3	168.6	161.1	157.3	165.5
Miscellaneous	188.1	46.7	48.3	46.4	46.7	191.9	46.7	47.1	49.0	49.1
Product sales	92.8	23.4	26.8	19.8	22.8	95.3	23.1	24.3	23.6	24.3
Total revenues and sales	\$ 4,138.9	\$ 1,030.2	\$ 1,038.0	\$ 1,029.1	\$ 1,041.6	\$ 4,231.4	\$ 1,053.4	\$ 1,050.8	\$ 1,057.6	\$ 1,069.6
<b>Revenues from business and broadband:</b>										
Consumer broadband	\$ 429.2	\$ 111.0	\$ 109.4	\$ 104.6	\$ 104.2	\$ 392.6	\$ 100.8	\$ 97.8	\$ 97.2	\$ 96.8
Business service revenue	1,945.8	492.8	487.8	484.1	481.1	1,935.4	483.6	482.4	485.7	483.7
Business product sales	40.9	10.8	12.0	7.8	10.3	46.3	11.3	12.4	11.0	11.6
Business and broadband revenues	\$ 2,415.9	\$ 614.6	\$ 609.2	\$ 596.5	\$ 595.6	\$ 2,374.3	\$ 595.7	\$ 592.6	\$ 593.9	\$ 592.1
Business and broadband as a percent of total revenues	58.4%	59.7%	58.7%	58.0%	57.2%	56.1%	56.6%	56.4%	56.2%	55.4%
Capital expenditures	\$ 490.0	\$ 159.1	\$ 127.2	\$ 122.5	\$ 81.2	\$ 487.4	\$ 133.1	\$ 120.6	\$ 116.7	\$ 117.0

(A) Pro forma results adjusts results of operations under GAAP to include the acquisitions of D&E Communications, Inc. ("D&E"), Lexcom Inc. ("Lexcom"), NuVox, Inc. ("NuVox"), Iowa Telecommunications Services, Inc. ("Iowa Telecom"), Hosted Solutions Acquisition, LLC ("Hosted Solutions") and Q-Comm Corporation ("Q-Comm"), and to exclude the results of the disposed out-of-territory product distribution operations and all merger and integration costs related to strategic transactions. Q-Comm results of operations only include those entities acquired from Q-Comm.

(B) OIBDA is operating income before depreciation and amortization.

(C) Operating income margin is calculated by dividing operating income by total revenues and sales.

(D) OIBDA margin is calculated by dividing OIBDA by total revenues and sales.

(E) Adjusted OIBDA margin is calculated by dividing adjusted OIBDA for the impact of restructuring charges, pension expense and stock-based compensation.

(F) Adjusted OIBDA margin is calculated by dividing adjusted OIBDA by total revenues and sales.

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	2010				2009				Total	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.
	Total	4th Qtr.	3rd Qtr.	2nd Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.						
<b>ACCESS LINES:</b>														
Total access lines	3,317.3	3,317.3	3,353.1	3,384.3	3,414.7	3,439.6	3,439.6	3,439.6	3,475.5	3,505.5	3,505.5	3,505.5	3,550.9	
YOY change in total access lines	-3.6%	-3.6%	-3.5%	-3.5%	-3.8%	-4.4%	-4.4%	-4.4%	-4.7%	-4.8%	-4.8%	-4.8%	-4.6%	
Net total access line losses	(122.3)	(35.8)	(31.2)	(30.4)	(24.9)	(158.1)	(158.1)	(158.1)	(30.0)	(45.4)	(45.4)	(45.4)	(46.8)	
<b>KEY OPERATING METRICS:</b>														
Voice lines														
YOY change in voice lines	(1)	3,045.8	3,087.0	3,120.1	3,154.8	3,181.9	3,181.9	3,181.9	3,219.5	3,250.6	3,250.6	3,250.6	3,296.0	
Net voice line losses		-4.3%	-4.1%	-4.0%	-4.3%	-4.9%	-4.9%	-4.9%	-5.3%	-5.6%	-5.6%	-5.6%	-5.5%	
High-speed Internet		(136.1)	(41.2)	(33.1)	(34.7)	(27.1)	(163.7)	(163.7)	(31.1)	(45.4)	(45.4)	(45.4)	(49.6)	
Advanced data and integrated solutions		1,302.9	1,290.7	1,275.1	1,260.3	1,223.9	1,223.9	1,223.9	1,195.7	1,168.0	1,168.0	1,168.0	1,151.5	
Total data and integrated solutions	(1)	173.6	173.6	169.4	168.9	165.9	164.3	164.3	163.0	162.1	162.1	162.1	162.5	
YOY change in high-speed Internet		1,476.5	1,476.5	1,460.1	1,444.0	1,426.2	1,388.2	1,388.2	1,358.7	1,330.1	1,330.1	1,330.1	1,314.0	
YOY change in advanced data and integrated solutions		6.5%	6.5%	7.9%	9.2%	9.4%	9.6%	9.6%	8.9%	8.9%	8.9%	8.9%	10.9%	
Net high-speed Internet additions		79.0	12.2	15.6	14.8	36.4	107.0	107.0	28.2	27.7	27.7	27.7	34.6	
Net advanced data and integrated solution additions (losses)		9.3	4.2	0.5	3.0	4.1	1.3	1.3	0.9	0.9	0.9	0.9	2.3	
Special access circuits		97.9	97.9	96.7	95.3	94.0	93.4	93.4	93.0	92.8	92.8	92.8	92.4	
YOY change in special access circuits	(1)	4.8%	4.8%	4.0%	2.7%	1.7%	1.6%	1.6%	1.5%	1.5%	1.5%	1.5%	1.8%	
Net special access circuit additions		4.5	1.2	1.4	1.3	0.6	0.4	0.4	0.2	0.4	0.4	0.4	0.5	
Digital television customers		433.5	433.5	433.3	422.9	414.8	402.0	402.0	391.6	380.4	380.4	380.4	366.3	
Total connections		5,053.7	5,053.7	5,077.1	5,082.3	5,089.8	5,065.5	5,065.5	5,062.8	5,033.9	5,033.9	5,033.9	5,068.7	
<b>OPERATING METRICS BY CUSTOMER TYPE:</b>														
Consumer:														
Voice lines		2,038.8	2,038.8	2,070.0	2,094.2	2,118.6	2,134.8	2,134.8	2,156.5	2,175.1	2,175.1	2,175.1	2,211.4	
High-speed Internet		1,168.5	1,168.5	1,157.3	1,143.2	1,129.9	1,095.0	1,095.0	1,067.6	1,041.4	1,041.4	1,041.4	1,026.7	
Digital television customers		433.5	433.5	433.3	422.9	414.8	402.0	402.0	391.6	380.4	380.4	380.4	366.3	
Total consumer connections		3,640.8	3,640.8	3,660.6	3,660.3	3,663.3	3,631.8	3,631.8	3,615.7	3,596.9	3,596.9	3,596.9	3,604.4	
YOY change in consumer connections		0.2%	0.2%	1.2%	1.8%	1.6%	1.2%	1.2%	0.7%	0.4%	0.4%	0.4%	0.8%	
Business:														
Voice lines		976.2	976.2	985.8	993.9	1,003.0	1,013.9	1,013.9	1,029.7	1,041.9	1,041.9	1,041.9	1,051.6	
High-speed Internet		134.4	134.4	133.4	131.9	130.4	128.9	128.9	128.1	126.6	126.6	126.6	124.8	
Advanced data and integrated solutions		173.6	173.6	169.4	168.9	165.9	164.3	164.3	163.0	162.1	162.1	162.1	162.5	
Special access circuits		97.9	97.9	96.7	95.3	94.0	93.4	93.4	93.0	92.8	92.8	92.8	92.4	
Total business connections		1,382.1	1,382.1	1,385.3	1,390.0	1,393.3	1,400.5	1,400.5	1,413.8	1,423.4	1,423.4	1,423.4	1,431.3	
YOY change in business connections		-1.3%	-1.3%	-2.0%	-2.3%	-2.7%	-2.7%	-2.7%	-2.0%	-0.8%	-0.8%	-0.8%	0.2%	
Wholesale voice lines		30.8	30.8	31.2	32.0	33.2	33.2	33.2	33.3	33.6	33.6	33.6	33.0	
YOY change in wholesale connections		-7.2%	-7.2%	-6.3%	-4.8%	0.6%	-1.2%	-1.2%	-2.9%	-3.4%	-3.4%	-3.4%	-18.9%	

(A) Pro forma results adjusts results of operations under GAAP to include the acquisitions of D&E Communications, Inc. ("D&E"), Lexcom Inc. ("Lexcom"), NuVox, Inc. ("NuVox"), Iowa Telecommunications Services, Inc. ("Iowa Telecom"), Hosted Solutions Acquisition, LLC ("Hosted Solutions") and Q-Comm Corporation ("Q-Comm"). Q-Comm results of operations only include those entities acquired from Q-Comm.

WINDSTREAM CORPORATION  
 UNAUDITED CONSOLIDATED RESULTS (NON-GAAP)  
 QUARTERLY SUPPLEMENTAL INFORMATION  
 for the quarterly periods in 2010  
 (In millions)

	2010				
	Total	4th Qtr.	3rd Qtr.	2nd Qtr.	1st Qtr.
<b>ADJUSTED FREE CASH FLOW (A):</b>					
Operating income	\$ 1,030.3	\$ 259.1	\$ 270.2	\$ 254.2	\$ 246.8
Depreciation and amortization	693.6	190.6	179.9	167.7	155.4
As reported OIBDA	1,723.9	449.7	450.1	421.9	402.2
Merger and integration expense	77.3	25.8	11.5	16.8	23.2
Pension expense	61.9	15.4	15.5	15.3	15.7
Restructuring expense	7.7	7.0	0.2	0.5	-
Stock-based compensation	17.0	5.0	4.5	4.0	3.5
As reported adjusted OIBDA	1,887.8	502.9	481.8	458.5	444.6

Adjustments:					
Pension contribution	(41.0)	-	(41.0)	-	-
Capital expenditures	(415.2)	(142.5)	(113.3)	(98.9)	(60.5)
Cash paid for interest expense	(493.3)	(72.7)	(171.0)	(81.0)	(168.6)
Cash paid for taxes	(120.6)	1.0	(34.0)	(80.5)	(7.1)
Adjusted free cash flow	\$ 817.7	\$ 288.7	\$ 122.5	\$ 198.1	\$ 208.4

Dividends paid	\$ 464.6	\$ 120.8	\$ 120.6	\$ 114.0	\$ 109.2
Dividend payout ratio	56.8%				

Weighted average common shares	468.0
Common stock outstanding	504.3

<b>DEBT LEVERAGE RATIO:</b>	
Long-term debt, including current maturities	As of
Cash and cash equivalents	December 31, 2010
Net debt	\$ 7,325.8
	42.3
	\$ 7,283.5

Pro forma adjusted OIBDA	Twelve
	Months Ended
	December 31, 2010
	\$ 2,064.1

Pro forma leverage ratio	3.55
Pro forma net leverage ratio	3.53

(A) The adjusted free cash flow reflects the combined operations of Windstream with D&E Communications, Inc. ("D&E"), Lexcom Inc. ("Lexcom"), NuVox, Inc. ("NuVox"), Iowa Telecommunications Services, Inc. ("Iowa Telecom"), Hosted Solutions Acquisition, LLC ("Hosted Solutions") and Q-Comm Corporation ("Q-Comm") for the periods following their respective acquisition dates, as reported under GAAP.

WINDSTREAM CORPORATION  
 UNAUDITED PRO FORMA CONSOLIDATED RESULTS (NON-GAAP) (A)  
 QUARTERLY SUPPLEMENTAL INFORMATION  
 for the quarterly periods in the years 2010 and 2009  
 (in millions)

	2010					2009				
	4th Qtr.	3rd Qtr.	2nd Qtr.	1st Qtr.	Total	4th Qtr.	3rd Qtr.	2nd Qtr.	1st Qtr.	Total
Reconciliation of Revenues under GAAP to Pro forma Revenues: Revenues and sales under GAAP	\$ 3,712.0	\$ 981.0	\$ 965.8	\$ 917.3	\$ 847.9	\$ 754.4	\$ 734.3	\$ 752.9	\$ 755.0	\$ 1,069.6
Pro forma adjustments:										
D&E revenues and sales prior to acquisition	-	-	-	-	-	16.1	35.5	35.8	35.9	123.3
Lexcom revenues and sales prior to acquisition	-	-	-	-	-	39.8	10.5	11.1	10.9	39.8
Out-of-territory product distribution operations revenues and sales	-	-	-	-	-	(38.5)	(8.2)	(17.6)	(12.7)	(65.0)
NaVox revenues and sales prior to acquisition	57.3	-	-	57.3	57.3	140.7	140.5	141.0	142.6	564.8
Iowa Telecom revenues and sales prior to acquisition	109.2	-	-	42.3	66.9	65.9	68.3	66.2	70.3	270.7
Hosted Solutions revenues and sales prior to acquisition	48.3	9.1	13.4	12.9	49.0	12.6	12.2	12.0	12.2	49.0
Q-Comm revenues and sales prior to acquisition	213.7	40.5	59.2	57.0	227.7	56.8	58.1	56.8	56.0	227.7
Elimination of Windstream revenues from Q-Comm prior to acquisition	(1.6)	(0.4)	(0.4)	(0.4)	(2.0)	(0.4)	(0.4)	(0.6)	(0.6)	(2.0)
Pro forma revenues and sales	\$ 4,138.9	\$ 1,030.2	\$ 1,038.0	\$ 1,029.1	\$ 1,041.6	\$ 1,053.4	\$ 1,050.8	\$ 1,057.6	\$ 1,069.6	\$ 4,231.4

Reconciliation of Operating Income under GAAP to Pro forma adjusted OIBDA

	4th Qtr.	3rd Qtr.	2nd Qtr.	1st Qtr.	Total	4th Qtr.	3rd Qtr.	2nd Qtr.	1st Qtr.	Total
Operating income from continuing operations under GAAP	\$ 1,030.3	\$ 259.1	\$ 270.2	\$ 254.2	\$ 246.8	\$ 234.5	\$ 225.4	\$ 244.4	\$ 257.6	\$ 956.9
Pro forma adjustments:										
D&E pre-acquisition operating income, excluding M&I costs	-	-	-	-	-	4.0	7.8	2.6	8.8	23.2
D&E intangible asset impairment	-	-	-	-	-	-	-	5.5	-	5.5
D&E intangible asset amortization adjustment	-	-	-	-	-	(3.5)	(0.6)	(1.0)	(1.0)	(6.1)
Lexcom pre-acquisition operating income, excluding M&I costs	-	-	-	-	-	2.6	3.3	4.1	3.7	13.7
Lexcom intangible asset amortization adjustment	-	-	-	-	-	(0.3)	(0.4)	(0.4)	(0.4)	(1.5)
Operating income from disposed out-of-territory product distribution operations	-	-	-	-	-	-	-	-	-	(0.9)
NaVox pre-acquisition operating income, excluding M&I costs	4.1	-	-	4.1	4.1	13.3	8.6	3.5	10.4	35.8
NaVox intangible asset amortization adjustment	(1.5)	-	-	(1.5)	(1.5)	(3.9)	(3.3)	(3.6)	(3.9)	(14.7)
Iowa Telecom pre-acquisition operating income, excluding M&I costs	23.9	-	-	9.8	14.1	59.0	14.0	15.1	12.8	128.8
Iowa Telecom intangible asset amortization adjustment	(11.2)	-	-	(4.7)	(6.5)	(6.8)	(6.9)	(7.3)	(7.4)	(28.4)
Hosted Solutions pre-acquisition operating income, excluding M&I costs	10.9	2.2	3.1	2.9	2.7	10.1	2.3	2.4	2.6	19.0
Hosted Solutions intangible asset amortization adjustment	(9.0)	(1.3)	(2.5)	(2.6)	(2.6)	(2.3)	(2.3)	(2.6)	(2.6)	(10.0)
Q-Comm pre-acquisition operating income, excluding M&I costs	50.1	8.8	15.7	13.6	12.0	49.5	11.7	14.3	12.7	87.3
Q-Comm intangible asset amortization adjustment	(39.1)	(6.3)	(10.6)	(11.0)	(11.2)	(43.4)	(10.4)	(11.1)	(11.3)	(86.8)
M&I costs	77.3	25.8	31.5	16.8	23.2	19.9	1.0	1.4	1.4	23.3
Pro forma operating income	1,135.8	288.3	287.4	279.0	281.1	1,073.6	251.3	262.6	279.2	1,073.6
Depreciation and amortization expense	693.6	190.6	179.9	167.7	155.4	138.7	133.8	133.3	132.0	537.8
D&E pre-acquisition depreciation and amortization expense	-	-	-	-	-	28.4	3.4	8.6	8.0	43.4
Lexcom pre-acquisition depreciation and amortization expense	9.5	-	-	-	-	9.4	2.5	2.4	2.6	14.5
NaVox pre-acquisition depreciation and amortization expense	39.1	-	-	9.5	9.5	22.3	22.5	23.6	24.2	94.9
Iowa Telecom pre-acquisition depreciation and amortization expense	21.1	3.4	5.7	5.9	6.1	23.8	24.1	23.6	23.3	98.7
Hosted Solutions pre-acquisition depreciation and amortization expense	76.1	13.5	20.7	20.8	21.1	5.9	6.2	5.4	5.2	41.7
Q-Comm pre-acquisition depreciation and amortization expense	1,975.2	495.8	493.7	488.9	496.8	494.6	469.5	480.6	496.1	1,948.8
Pro forma OIBDA (B)	61.9	15.4	15.5	15.3	15.7	23.7	22.8	22.7	22.6	61.9
Other adjustments:										
Pension expense	0.2	-	-	-	-	0.1	-	-	-	0.1
Pension expense of D&E prior to acquisition	7.7	7.0	0.2	0.5	0.1	1.8	7.5	(0.1)	(0.1)	17.1
Restructuring charges	17.0	5.0	4.5	4.0	3.5	3.1	3.7	5.4	5.2	29.9
Stock-based compensation	0.1	-	-	-	-	1.0	0.1	0.3	0.1	2.5
D&E stock-based compensation prior to acquisition	1.8	-	-	0.7	1.1	4.8	0.9	1.1	1.7	8.3
NaVox stock-based compensation prior to acquisition	0.2	(0.2)	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.8
Iowa Telecom stock-based compensation prior to acquisition	2.064.1	523.0	514.1	509.6	517.4	526.0	505.6	511.3	525.7	2,064.1
Hosted Solutions stock-based compensation prior to acquisition	\$ 2,064.1	\$ 523.0	\$ 514.1	\$ 509.6	\$ 517.4	\$ 526.0	\$ 505.6	\$ 511.3	\$ 525.7	\$ 2,064.1

(A) Pro forma results adjust results of operations under GAAP to include the acquisitions of D&E Communications, Inc. ("D&E"), Lexcom Inc. ("Lexcom"), NaVox, Inc. ("NaVox"), Iowa Telecommunications Services, Inc. ("Iowa Telecom"), Hosted Solutions Acquisition, LLC ("Hosted Solutions"), and Q-Comm Corporation ("Q-Comm"), and to exclude the results of the disposed out-of-territory product distribution operations, and all merger and integration costs related to strategic transactions. Q-Comm results of operations only include those entities acquired from Q-Comm.

(B) OIBDA is operating income before depreciation and amortization.

(C) Pro forma adjusted OIBDA adjusts pro forma OIBDA for the impact of restructuring charges, pension expense and stock-based compensation.

WINDSTREAM CORPORATION  
 UNAUDITED PRO FORMA CONSOLIDATED RESULTS (NON-GAAP) (A)  
 QUARTERLY SUPPLEMENTAL INFORMATION  
 for the quarterly periods in the years 2010 and 2009  
 (In millions)

	2010				2009					
	4th Qtr.	3rd Qtr.	2nd Qtr.	1st Qtr.	Total	4th Qtr.	3rd Qtr.	2nd Qtr.	1st Qtr.	
Total	\$ 415.2	\$ 142.5	\$ 113.3	\$ 98.9	\$ 60.5	\$ 298.1	\$ 91.3	\$ 67.3	\$ 76.7	\$ 62.8
Reconciliation of Capital Expenditures under GAAP to Pro forma Capital Expenditures:										
Capital expenditures under GAAP	-	-	-	-	-	17.1	1.0	5.2	5.2	5.7
Pro forma adjustments:										
D&E capital expenditures prior to acquisition	-	-	-	-	-	3.0	0.4	0.9	0.8	0.9
Lexcom capital expenditures prior to acquisition	3.8	-	-	-	3.8	67.9	13.3	14.6	12.9	27.1
NuVox capital expenditures prior to acquisition	8.4	-	-	5.4	3.0	25.7	8.0	6.1	7.6	4.0
Iowa Telecom capital expenditures prior to acquisition	9.4	5.1	0.8	2.6	0.9	17.5	5.6	5.7	1.6	4.6
Hosted Solutions capital expenditures prior to acquisition	53.2	11.5	13.1	15.6	13.0	58.1	13.5	20.8	11.9	11.9
Q-Comm capital expenditures prior to acquisition	\$ 490.0	\$ 159.1	\$ 127.2	\$ 122.5	\$ 81.2	\$ 487.4	\$ 133.1	\$ 120.6	\$ 116.7	\$ 117.0

(A) Pro forma results adjust results of operations under GAAP to include the acquisitions of D&E Communications, Inc. ("D&E"), Lexcom Inc. ("Lexcom"), NuVox, Inc. ("NuVox"), Iowa Telecommunications Services, Inc. ("Iowa Telecom"), Hosted Solutions Acquisition, LLC ("Hosted Solutions") and Q-Comm Corporation ("Q-Comm"), and to exclude the results of the disposed out-of-territory product distribution operations and all merger and integration costs related to strategic transactions. Q-Comm results of operations only include those entities acquired from Q-Comm.

**Exhibit JAA-G7**  
**To the Direct Testimony of**  
**James A. Appleby**  
**Filed on behalf of Sprint Nextel**  
**in Administrative Case No. 2010-00398**

	<u>Brandenburg Telephone</u> <a href="http://www.bbtel.com">www.bbtel.com</a>	<u>South Central Rural</u> <a href="http://www.scrfc.com">www.scrfc.com</a>	<u>Western Kentucky Rural</u> <a href="http://www.wktelecom.coop">www.wktelecom.coop</a>	<u>Southeast Telephone</u> <a href="http://www.southeasttelephone.com">www.southeasttelephone.com</a>
Source of Information				
<b>LOCAL SERVICE</b> Do they offer Local Telephone Service?	YES Basic Residential Local Rate is only \$5.60 and Basic Business Rate is only \$8.40	YES	YES	YES
Interesting Information about local service				
<b>LONG DISTANCE</b> Do they offer Long Distance Service?	YES	YES	YES	YES
Interesting Information about long distance service				Hometown calling only \$21.95, All state is \$39.95 and All American is \$59.95
<b>BROADBAND</b> Do they offer Broadband Service?	YES	YES	YES	YES
Interesting Information about broadband service	DSL starts at \$19.95	DSL \$29.95 for 1.5MB and \$44.95 for 3MB	DSL up to 3MB as a separate product offer	DSL 1MB - \$26.95 and 3MB - \$39.95
<b>VIDEO</b> Do they offer Video Service?	YES Basic Service \$13.95, Deluxe Service \$44.95 and Gold Service is \$8.95 add \$10.95 for High Definition service	YES	YES	YES
Interesting Information about video service		Digital Video - \$34.95		Reselling Directv
<b>WIRELESS</b> Do they offer Wireless Services?		YES link to Bluegrass Cellular on the website		
Interesting Information about wireless service				
<b>BUNDLES</b> Do they bundle services?			YES	Preferred Package - \$129.90 unlimited local, 1000 LD minutes, calling features, 1.5MB DSL, expanded Digital TV (150 channels)
Lead Offer				

**Exhibit JAA-G7**  
**To the Direct Testimony of**  
**James A. Appleby**  
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**in Administrative Case No. 2010-00398**

	<u>Mountain Rural</u> <a href="http://www.mrtc.com">www.mrtc.com</a>	<u>Foothills Rural</u> <a href="http://www.foothills.net">www.foothills.net</a>	<u>Windstream</u> <a href="http://www.windstream.com">www.windstream.com</a>
Source of Information			
<b>LOCAL SERVICE</b> Do they offer Local Telephone Service?	YES	YES Basic Voice - \$12, Caller ID on TV at \$9.95 is nearly as much as basic voice	YES
Interesting information about local service			
<b>LONG DISTANCE</b> Do they offer Long Distance Service?	YES	YES Total voice packages of local, 1000 minutes of long distance and features for \$49.95	YES Flex Phone Plan \$34.99 for local, 100 LD and features. Unlimited Phone Plan for \$49.95
Interesting information about long distance service			
<b>BROADBAND</b> Do they offer Broadband Service?	YES	YES Delivered over fiber to the premise network - 3MB - \$39.95 and 10MB for \$89.95, also offering DSL service where fiber not available	YES Don't need to buy local voice service to get 3MB for \$39.99, 6MB for \$44.99 and 12 MB for \$49.99
Interesting information about broadband service			
<b>VIDEO</b> Do they offer Video Service?	YES	YES	YES
Interesting information about video service	"IPTV arrives over telephone lines"	Digital TV for \$70.95	
<b>WIRELESS</b> Do they offer Wireless Services?	YES	YES	
Interesting information about wireless service	Link to Appalachian Wireless	Link to Appalachian Wireless	
<b>BUNDLES</b> Do they bundle services?	YES		YES
Lead Offer	Offer telephone, broadband and video in the classic bundle for \$134.95		\$94.99 for video, voice and 6MB broadband with a lifetime price guarantee



Exhibit JAA-G8  
 To the Direct Testimony of  
 James A. Appleby  
 Filed on behalf of Sprint Nextel  
 in Administrative Case No. 2010-00398

CONFIDENTIAL DATA REDACTED

	<u>Ballard Rural Telephone</u>	<u>Brandenburg Telephone</u>	<u>Duo County Tele. Coop.</u>	<u>Foothills Rural Tele. Coop.</u>	<u>Coalfields Tele. Co</u>	<u>Highland Tele. Coop.</u>	<u>Logan Telephone Tele. Coop.</u>	<u>Mountain Rural Tele. Coop.</u>	<u>North Central Rural Tele. Coop.</u>	<u>Peoples Rural Tele. Coop.</u>	<u>South Central Rural Tele. Coop.</u>	<u>Thacker - Grigsby Tele. Co</u>	<u>West Kentucky Rural Tele. Coop.</u>	<u>Total</u>
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Total Access Lines  
 BB Subscriber  
 Customer Penetration  
 Ave. BB Price  
 Broadband Revenue  
 Residential Local Rate

**Windstream Corporation Dividend Payout Magnitude**

	<u>Data @ 7-6-10</u>	<u>Data @ 6-28-11</u>	<u>Row / Calculation</u>	<u>Source</u>
Market Capitalization	\$ 4,830,000,000	\$ 6,550,000,000	(A)	Yahoo Finance
Stock Share Price	\$ 10.57	\$ 12.85	(B)	Yahoo Finance
Approximate Outstanding Shares	456,953,642	509,727,626	(C) = (A) / (B)	
Annual Dividend Payout Per Year Per Share	\$ 1.00	\$ 1.00	(D)	Yahoo Finance
Dividend Payout Percentage	9.46%	7.78%	(E) = (D) / (B)	
Windstream Annual Dividend Distribution	\$ 456,953,642	\$ 509,727,626	(F) = (C) * (D)	
Windstream Total Access Lines 12-31-09	3,030,500	3,045,800	(G)	4Q 2009 and 2010 Windstream Financial Supplemental data
Dividend Payout % Per Access Line per Month	\$ 12.57	\$ 13.95	(H) = (F) / (G) / 12	
Access Reduction per Access Line per Month In Kentucky	\$	\$ 6.24	(I)	JAA-G3 - Confidential Data
Access Reduction as a % of Dividend Payout		45%	(J) = (I) / (H)	