

**Before the  
Federal Communications Commission  
Washington, DC 20554**

In the Matter of	)	
	)	
Applications of AT&T Inc. and	)	WT Docket No. 11-65
Deutsche Telekom AG	)	
	)	
For Consent To Assign or Transfer Control	)	
of Licenses and Authorizations	)	

**COMMENTS OF COMMUNICATIONS WORKERS OF AMERICA**

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## EXECUTIVE SUMMARY

After a careful and thorough review, CWA strongly supports the AT&T/T-Mobile Merger and believes that the Commission should approve the Transaction in a timely fashion. CWA represents more than 700,000 workers in the communications, media, airline, and manufacturing industries as well as the public sector. Most important, for purposes of this proceeding, CWA is the exclusive bargaining agent for approximately 43,000 AT&T wireless employees.

The Merger will produce a broad array of substantial public interest benefits. *First*, the Transaction will dramatically expand high-speed broadband deployment. Because of the Transaction, AT&T's 4G LTE high-speed broadband network will cover over 97% of Americans. This stands in contrast to the approximately 80% of Americans who would be covered if the Merger is not approved. In sum, the Transaction will allow AT&T to offer 4G LTE service to 55 million more Americans and cover with its 4G LTE network additional areas that are equivalent to more than one-third of the land mass of the 48 contiguous states. This dramatic expansion will substantially further the Obama Administration's and the Commission's broadband deployment goals as well as be of particular assistance to rural America.

This expansion of broadband deployment resulting from the Merger will also create numerous jobs. AT&T has committed after the Merger to increase its capital expenditures by more than \$8 billion over the next seven years. The Economic Policy Institute estimates that this investment in network expansion will create as many as 96,000 jobs in the U.S. economy. This finding, moreover, only accounts for the effects of capital investment in wireless infrastructure and does not count the jobs that will be created as a result of increased broadband services.

Given the critical importance of expanding the availability of high-speed broadband throughout the United States, the Commission, consistent with prior precedent, should condition its approval of the Merger on the expansion of AT&T's 4G LTE network, including timetables, speed and quality benchmarks, data reporting requirements, and penalties for non-compliance. While CWA believes that AT&T has every intention of following through on the company's specific commitment to expand its 4G LTE network, the public interest benefits associated with providing 55 million more Americans access to AT&T's 4G LTE network are so great that the Commission should take specific action to ensure that they are realized.

*Second*, the Merger will improve the quality of service received by AT&T and T-Mobile customers. Right now, both companies are suffering from capacity constraints. By facilitating the more efficient utilization of spectrum, the Transaction will substantially ease problems associated with network congestion and bring substantial benefits, such as fewer dropped calls and faster connection speeds, to consumers on a daily basis. T-Mobile customers, in particular, will benefit from the broader coverage and better service within buildings that will result from gaining access to AT&T's networks. Because the Merger will lead to expanded output and the realization of synergies, it will also likely result in lower prices for consumers as have prior wireless mergers.

*Third*, the Transaction will benefit workers in the wireless industry and strengthen employees' rights. AT&T is the only wireless company with a unionized workforce, and its management has worked in partnership with CWA to ensure that past mergers worked to the benefit of AT&T's employees. This Transaction will be no different. CWA will strive to ensure that there will be no involuntary job losses, and that any workers adversely affected by the Transaction will be able to transition into other similar or better jobs with the company.

Moreover, AT&T, because of the Merger, will be in a stronger position to create jobs because it will be better able to expand and extend its business than either AT&T or T-Mobile could have done as separate entities.

The Merger will also benefit T-Mobile employees. Historically, T-Mobile has been hostile to unions and opposed efforts by workers to organize and exercise their basic rights. AT&T, by contrast, has publicly committed to maintain a policy of non-interference with respect to the organizing of T-Mobile employees, leaving the decision of whether to join a union up to individual employees according to a non-confrontational process sanctioned under the National Labor Relations Act. As a result, just as workers at other companies acquired by AT&T have freely opted for union representation, CWA believes there is an excellent chance that T-Mobile employees will make this choice as well.

Moreover, before this Transaction was proposed, it was clear that Deutsche Telekom was going to sell T-Mobile. Deutsche Telekom indicated that it was no longer willing to commit capital to T-Mobile, and T-Mobile itself lacks the resources necessary to develop the 4G LTE high-speed broadband network the company would need to remain competitive. As a result, the real question facing T-Mobile workers is whether their employer will be acquired by Sprint or AT&T, and AT&T is by far the better option for T-Mobile employees. In contrast to AT&T's strict non-interference policy with respect to union organizing and positive partnership with CWA, Sprint has a long history of hostility to union organizing and trampling workers' rights. Additionally, while AT&T has worked with CWA to return jobs to the United States, Sprint has an extensive record of outsourcing American jobs.

Weighed against these tangible and overwhelming public interest benefits, opponents of the Merger will present the Commission with speculative harms that are premised on a

fundamentally flawed view of the wireless marketplace. The wireless industry is dynamic and constantly evolving; competition among wireless service providers is vibrant and intense with approximately one-quarter of consumers switching providers each year. All of this will continue to be the case after the Merger.

The Transaction will not provide AT&T with the incentive to suppress output or raise prices unilaterally. Rather, given the capacity constraints currently faced by AT&T as well as the spectral and network efficiencies resulting from the merger, the Merger will provide AT&T with the incentive and ability to expand output and lower prices. Moreover, given the vibrant competition that exists in the wireless marketplace, any attempt by AT&T to suppress output and raise prices following the Merger would be counterproductive. Were AT&T to embark upon such a course of action, rival service providers and new entrants into the marketplace would be the ultimate beneficiaries. Further, the Merger will not facilitate anti-competitive collusion within the wireless marketplace because carriers offer diverse and heterogeneous services, compete against each other across multiple variables, and are under constant threat by the prospect of new entrants or the rapid growth of smaller rivals.

It is also important for the Commission to recognize that in the absence of the Merger, T-Mobile will not remain a viable, independent competitor in the wireless marketplace. Rather, T-Mobile will likely be sold to either AT&T or Sprint, and the AT&T/T-Mobile Merger easily represents the better choice to enhance competition and benefit consumers. AT&T is well-equipped from a financial, technological, and managerial standpoint to maximize T-Mobile's assets. Sprint, by contrast, is still recovering from its disastrous merger with Nextel and would struggle to make the capital expenditures necessary to exploit T-Mobile's assets, deal with an

increased debt burden, and integrate the two companies' incompatible technologies into a single network.

In analyzing this transaction, the Commission should employ the same product and geographic market definitions that it has utilized in recent wireless mergers. The appropriate product definition is the mobile telephony/broadband services market, and the appropriate geographic definition is the local market, not a national or regional one. Consumers shop for wireless services within their local area, and carriers discriminate between customers in different local markets with respect to price and service quality.

Finally, the Commission should update its spectrum screen to reflect recent developments in the wireless industry. Specifically, the Commission should include 90 MHz of MSS/ATC spectrum, all 194 MHz for BRS/EBS spectrum, and 25 MHz of WCS spectrum in the spectrum screen. The Commission has recognized that this spectrum is capable of supporting mobile broadband services and licensed it with appropriate rules for that use.

Once the spectrum screen is updated to reflect the realities of the wireless marketplace, AT&T's spectrum holdings would exceed the spectrum screen following the Merger in few, if any, local markets: between zero and 31 CMAs (out of 716 CMAs). Moreover, even using the largest number of CMAs, 31, there is strong reason to believe that the existence of current and potential competitors in those local markets would alleviate any potential concerns regarding the Merger. In those 31 CMAs, the average number of companies owning spectrum suitable for mobile broadband services is 14, and the minimum number in any of the 31 CMAs is 12. The large number of potential competitors in each of these CMAs mitigates any concern associated with AT&T's holdings exceeding the spectrum screen.

In conclusion, AT&T's acquisition of T-Mobile will be good for broadband deployment, good for consumers, good for jobs, good for workers' rights, and good for rural citizens. The substantial public interest benefits resulting from the Merger greatly outweigh any alleged transaction-specific harms, and the Transaction therefore should be promptly approved.

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**COMMENTS OF COMMUNICATIONS WORKERS OF AMERICA**

**I. INTRODUCTION**

The Communications Workers of America (“CWA”) hereby submits the following comments in support of the applications filed by AT&T Inc. (“AT&T”) and Deutsche Telekom AG (“Deutsche Telekom”) to transfer control of the licenses and authorizations held by T-Mobile USA, Inc. (“T-Mobile”) to AT&T.<sup>1</sup>

CWA represents more than 700,000 workers in the communications, media, airline, and manufacturing industries as well as the public sector. Most important, for purposes of the instant proceeding, CWA is the exclusive bargaining agent for approximately 43,000 AT&T wireless employees. Consequently, the AT&T/T-Mobile Merger is a subject of intense interest to CWA’s members.

After careful review, CWA supports the Merger and believes the Commission should approve the Transaction in a timely fashion. CWA has concluded that this Merger will produce

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<sup>1</sup> See *In the Matter of Applications of AT&T Inc. and Deutsche Telekom AG For Consent To Assign or Transfer Control of Licenses and Authorizations*, WT Docket No. 11-65 (filed Apr. 21, 2011) (hereinafter, the applications and the transaction are referred to as the “AT&T/T-Mobile Merger,” the “Merger” or the “Transaction,” and AT&T, Deutsche Telekom, and T-Mobile are collectively referred to as the “Applicants”).

substantial public interest benefits. Among other things, the Merger will significantly expand high-speed broadband deployment, improve the quality of service received by current AT&T and T-Mobile customers, create tens of thousands of jobs, enhance economic growth (especially in rural America) and bolster workers' rights. Moreover, these important transaction-specific benefits far outweigh any public interest harms that certain parties are speculating could result from the Merger. Today's wireless marketplace is dynamic and highly competitive, and it will remain so following this Transaction. The record demonstrates that AT&T will continue to face intense competition from numerous wireless service providers that are aggressively seeking to win new customers by deploying high-speed broadband, increasing the geographic coverage of their networks, introducing new devices into the market, creating attractive pricing plans, and offering new service options.

In particular, the Merger will lead to dramatically greater broadband build-out. Without the Merger, AT&T planned to build out its 4G LTE high-speed broadband network to cover only about 80% of the population of the United States. The Transaction, by contrast, will enable AT&T to expand its 4G LTE network to cover 97% of Americans within six years. In short, because of the Merger, AT&T will be able to offer 4G LTE service to 55 million more Americans than would otherwise be the case. Moreover, AT&T's incremental additional \$8 billion investment in wireless infrastructure will create as many as 96,000 jobs in the U.S. economy. Given the critical importance of expanding the availability of broadband, the Commission should condition its approval of the Merger on the expansion of AT&T's 4G LTE network.

Counter to some claims, CWA believes this Merger will enhance competition and lower prices. First, the Merger will allow the combined company to compete more effectively by

alleviating spectrum constraints. Absent the Merger, AT&T will face substantial capacity constraints, thus reducing the company's incentive to attract new customers through lower prices and innovative services. The Merger, however, will lead to efficiencies in spectrum utilization and will provide AT&T with badly needed spectrum, thus alleviating the company's capacity shortage and allowing it to continue aggressively competing for new customers.

The evidence also indicates that, regardless of this proceeding's outcome, T-Mobile will not remain a viable independent competitor in the marketplace for much longer. Because Deutsche Telekom is no longer willing to fund T-Mobile, and T-Mobile lacks the necessary capital and spectrum to construct a 4G high-speed broadband network, it is highly likely that T-Mobile will be sold one way or the other, and the most relevant question is whether the company will be acquired by AT&T or Sprint. As explained in greater detail below, AT&T is by far the better choice for both T-Mobile customers and T-Mobile employees. AT&T has the financial resources to harness the power of T-Mobile's assets for the benefit of consumers, and the two companies' operating networks are technologically compatible. Moreover, AT&T, as the only union wireless company, respects the rights of its employees, and is working with CWA to keep jobs in United States. Sprint, on the other hand, would be unable to make the capital expenditures necessary to maximize T-Mobile's assets, and it would be very difficult for Sprint to integrate T-Mobile's network with its own from a technological perspective. Furthermore, Sprint has a troubling record of anti-union behavior and outsourcing the jobs of American workers.

As with any transaction of this size, CWA believes that this Merger should be subject to prompt but thorough regulatory oversight. Following that examination, however, the Commission should conclude in a timely manner that the Transaction will serve the public

interest. As demonstrated below, AT&T's acquisition of T-Mobile will be good for broadband deployment, good for consumers, good for jobs, good for workers' rights, and good for rural citizens. In short, the Merger will be good for America and should be promptly approved.

## II. STANDARD OF REVIEW

Pursuant to Sections 214(e) and 310(d) of the Communications Act,<sup>2</sup> the Commission must determine whether this Transaction will serve the public interest, convenience, and necessity.<sup>3</sup> Absent a determination that the Merger would violate specific provisions of the Communications Act, another statute, or the Commission's rules, the Commission employs a balancing test that weighs "any potential public interest harms of the transaction against any potential public interest benefits."<sup>4</sup>

In conducting its public interest analysis, the Commission takes into account the "broad aims of the Communications Act," which include, among other things, accelerating private

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<sup>2</sup> 47 U.S.C. §§ 214(e), 310(d).

<sup>3</sup> See, e.g., *In the Matter of Applications of AT&T Inc. and Centennial Communications Corp. For Consent to Transfer Control of Licenses, Authorizations, and Spectrum Leasing Agreements*, 24 FCC Rcd 13915, 13927 ¶ 27 (2009) ("AT&T/Centennial Order"); *Applications of Cellco Partnership d/b/a Verizon Wireless and Atlantis Holdings LLC For Consent to Transfer Control of Licenses, Authorizations, and Spectrum Manager and De Facto Transfer Leasing Arrangements and Petition for Declaratory Ruling that the Transaction is Consistent with Section 310(b)(4) of the Communications Act*, 23 FCC Rcd 17444, 17460 ¶ 26 (2008) ("Verizon Wireless/ALLTEL Order"); *In the Matter of Applications of Cellco Partnership d/b/a/ Verizon Wireless and Rural Cellular Corporation For Consent To Transfer Control of Licenses, Authorizations, and Spectrum Fee Leases and Petitions for Declaratory Ruling that the Transaction is Consistent with Section 310(b)(4) of the Communications Act*, 23 FCC Rcd 12463, 12476 ¶ 26 (2008) ("Verizon Wireless/RCC Order"); *In the Matter of Applications of AT&T Inc. and Dobson Communications Corporation for Consent To Transfer Control of Licenses and Authorizations*, 22 FCC Rcd 20295, 20301 ¶ 10 (2007) ("AT&T/Dobson Order"); *In the Matter of Applications of Nextel Communications, Inc. and Sprint Corporation For Consent to Transfer Control of Licenses and Authorizations*, 20 FCC Rcd 13967, 13976 ¶ 20 (2005) ("Sprint/Nextel Order"); *Applications of AT&T Wireless Services, Inc. and Cingular Wireless Corporation*, 19 FCC Rcd 21522, 21542 ¶ 40 (2004) ("AT&T Wireless/Cingular Order").

<sup>4</sup> *AT&T/Centennial Order*, 24 FCC Rcd at 13927 ¶ 27.

sector deployment of advanced services. Additionally, the Commission may assess “whether the proposed transaction will affect the quality of communications services or will result in the provision of new or additional services to consumers” and “may consider technological and market changes and the nature, complexity, and speed of change of, as well as trends within, the communication industry.”<sup>5</sup> At the end of the day, “[t]he applicants involved with each transaction bear the burden of proving that the proposed transaction, on balance, serves the public interest.”<sup>6</sup>

### **III. THE TRANSACTION WILL PRODUCE SUBSTANTIAL PUBLIC INTEREST BENEFITS**

The AT&T/T-Mobile Merger will produce a wide array of significant public interest benefits. Because of the Transaction, AT&T’s 4G LTE high-speed broadband network will cover over 97% of Americans, substantially furthering the Obama Administration’s and the Commission’s broadband deployment goals. In addition, this increased capital investment will accelerate economic growth and create tens of thousands of jobs in the United States. The Merger will also alleviate both companies’ capacity constraints, thus improving the quality of service received by AT&T and T-Mobile customers and likely lowering prices. Finally, the Transaction will benefit workers in the wireless industry and strengthen employees’ rights.

#### **A. The Merger Will Significantly Expand High-Speed Broadband Deployment, Connecting Unserved Rural Areas, Creating Tens of Thousands of Jobs, and Boosting Economic Growth**

The AT&T/T-Mobile Merger will dramatically expand high-speed broadband deployment, resulting in increased coverage for 55 million Americans. Both the FCC and the

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<sup>5</sup> *Id.* at 13928 ¶ 29.

<sup>6</sup> *AT&T/Dobson Order*, 22 FCC Rcd at 20301 ¶ 10.

Obama Administration have highlighted the importance of such nationwide coverage, and this Merger will meet those goals, leading to accelerated economic growth for the country.

Earlier this month, the Commission concluded in its *2011 Seventh Broadband Progress Report* that “broadband is not being deployed in a reasonable and timely fashion to all Americans.”<sup>7</sup> The Commission thus recognizes, as CWA does, that when it comes to broadband deployment, the United States is not yet where we need to be as a nation.

Today, for example, the United States ranks only twelfth in the world in broadband adoption and twenty-fifth in average Internet connection speeds.<sup>8</sup> Indeed, Romanians currently enjoy average Internet speeds that are more than six times those experienced by Americans.<sup>9</sup> In light of this situation, the Commission in its landmark National Broadband Plan appropriately concluded that “[b]roadband is *the* great infrastructure challenge of the early 21st century.”<sup>10</sup>

The National Broadband Plan set forth the tremendous importance of broadband to the future of our country and detailed how expanded broadband deployment would benefit our nation’s economy and improve our citizenry’s quality of life. Just as America’s world-class interstate highway system fueled our nation’s economic growth in the last century, the deployment of high-speed broadband networks is the key to maintaining our international

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<sup>7</sup> *In the Matter of Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, Seventh Broadband Progress Report and Order on Reconsideration (“*2011 Seventh Broadband Progress Report*”), GN Docket 10-59 (rel. May 20, 2011), at 2 ¶ 10.

<sup>8</sup> *See In the Matter of International Comparison Requirements Pursuant to the Broadband Data Improvement Act, International Broadband Data Report*, IB Docket No. 10-171 (rel. May 20, 2011) at 4 ¶ 9; *A Report on Internet Speeds in All 50 States*, at 2-3 (2010) (available at <http://www.speedmatters.org/content/resources>) (“*2010 Internet Speeds Report*”).

<sup>9</sup> *See id.*

<sup>10</sup> Omnibus Broadband Initiative (OBI), FCC, *Connecting America: The National Broadband Plan*, GN Docket No. 09-51 (2010), at 3 (“*National Broadband Plan*”) (emphasis in original).

competitiveness, creating jobs in this century, and building sustainable communities. Furthermore, high-speed broadband will affect virtually every facet of Americans' lives. Telemedicine, distance learning, and smart grids, to give just a few examples, hold enormous potential to improve health care, education and energy conservation.<sup>11</sup> And as the Commission has explained, expanded broadband deployment will also improve the performance of our government, and enhance public safety.<sup>12</sup>

Because of the importance of broadband to our country's future, CWA launched its Speed Matters campaign four years ago.<sup>13</sup> Through this program, CWA has advocated for policies that will bring affordable, high-speed Internet to all Americans. For instance, in its National Broadband Plan, the Commission set forth a bold and comprehensive blueprint for expanding the availability and use of broadband, and CWA has urged that this strategy be implemented in an expeditious manner. The National Broadband Plan also established a set of national goals "to serve as a compass for the next decade."<sup>14</sup> Among these objectives was one that is particularly relevant for purposes of this proceeding: "The United States should lead the world in mobile innovation, *with the fastest and most extensive wireless networks of any nation.*"<sup>15</sup>

The AT&T/T-Mobile Merger presents a unique opportunity for the Commission to take a critical step towards achieving this goal. The Transaction will enable AT&T to expand its 4G

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<sup>11</sup> See *id.* at 201-02, 227, 249-51.

<sup>12</sup> See *id.* at 283-93, 313-27.

<sup>13</sup> See CWA Press Release, "CWA's 'Speed Matters' Campaign to Press for High Speed Internet for All," Jan. 16, 2007.

<sup>14</sup> *National Broadband Plan* at xiv.

<sup>15</sup> *Id.* (emphasis added).

LTE high-speed broadband network to cover over 97% of all Americans.<sup>16</sup> This stands in contrast to the approximately 80% of Americans who will be covered if the Merger is not approved. All in all, the Transaction will allow AT&T to offer 4G LTE service to 55 million more Americans and cover with its 4G LTE network additional areas that are equivalent to more than one-third of the land mass of the 48 contiguous states.<sup>17</sup> Moreover, 4G LTE service can deliver download speeds of 10 megabits per second, and only 25% of broadband subscribers in the United States currently connect to the Internet at such speeds.<sup>18</sup>

While consumers throughout the United States will benefit from AT&T's expanded 4G LTE broadband networks, the effects will be especially pronounced in rural America. Those living in rural areas are currently on the wrong side of a digital divide. A report last year by the Pew Research Center's Internet & American Life Project, for instance, found that while 70 percent of Americans in non-rural areas have broadband in their homes, the figure is only 50 percent among rural Americans.<sup>19</sup> One key reason for this gap is that high-speed broadband networks have much better coverage in urban areas than rural areas. In its *2011 Seventh Broadband Progress Report*, the Commission concluded that Americans unserved by broadband "tend to live outside of the 'urban core' areas" and revealed that unserved census tracts have less than one-fifth the population density of census tracts that are served by broadband.<sup>20</sup>

Right now, many parts of rural America are facing what is perhaps best described as a silent crisis. Thousands of small towns are gradually losing population as younger residents

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<sup>16</sup> See *Description of Transaction, Public Interest Showing, and Related Demonstrations*, WT Docket No. 11-65 (filed Apr. 21, 2011) ("Public Interest Statement").

<sup>17</sup> See *id.* at 56.

<sup>18</sup> See *2010 Internet Speeds Report* at 4.

<sup>19</sup> Aaron Smith, Senior Researcher, Pew Internet & American Life Project, *Home Broadband 2010* (Aug. 11, 2010) at 8 (available at <http://www.pewinternet.org/Reports/2010/Home-Broadband-2010.aspx>).

<sup>20</sup> *2011 Seventh Broadband Progress Report* at ¶¶ 41-42.

move to urban areas in search of more promising economic opportunities. In order to halt this trend by creating jobs and maintaining sustainable communities in rural America, it is critical that we close the digital divide, and the AT&T/T-Mobile Merger will help do just that. Most of the 55 million additional people to be covered by AT&T's 4G LTE network as a result of the Merger reside in rural America,<sup>21</sup> and of the more than one million additional square miles of land mass that will be covered by the network, the vast majority consists of rural areas.

This year, President Obama unveiled a Wireless Innovation and Infrastructure Initiative with the goal of providing at least 98% of Americans with access to 4G high-speed wireless within five years.<sup>22</sup> President Obama explained that this initiative was “about connecting every part of America to the digital age. It’s about a rural community in Iowa or Alabama where farmers and small business owners will be able to sell their products all over the world. It’s about a firefighter who can download the design of a burning building onto a handheld device; a student who can take classes with a digital textbook; or a patient who can have face-to-face video chats with her doctor.”<sup>23</sup> CWA strongly supports the Obama Administration’s wireless initiative, and by approving the Merger, the Commission will go the vast majority of the way to meeting the President’s objective. As reviewed above, AT&T has committed that following the merger its 4G LTE network will provide over 97% of Americans with access to 4G high-speed wireless broadband within six years.

The expansion of broadband deployment resulting from the Merger will also create at least tens of thousands of jobs and boost economic growth. AT&T has committed after the

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<sup>21</sup> See *Public Interest Statement* at 56.

<sup>22</sup> *President Obama Details Plan to Win the Future Through Expanded Wireless Access* (Feb. 10, 2011) (available at <http://www.whitehouse.gov/the-press-office/2011/02/10/president-obama-details-plan-win-future-through-expanded-wireless-access>).

<sup>23</sup> Barack Obama, *State of the Union Address* (Jan. 25, 2011) (available at <http://www.whitehouse.gov/the-press-office/2011/01/25/remarks-president-state-union-address>).

Merger to increase its capital expenditures by more than \$8 billion over the next seven years, principally to fund the expansion of its 4G LTE high-speed broadband network to cover over 97% of Americans.<sup>24</sup> According to a study by the Economic Policy Institute (“EPI”), each \$1 billion in capital expenditures can create up to 12,000 jobs a year in the economy as a result of network investment.<sup>25</sup> Therefore, EPI estimates that the Merger-related network expansion will create between 54,834 and 95,959 jobs.<sup>26</sup> Between 15,598 and 27,297 jobs will be direct positions within the wireless industry to meet the additional demand for goods and services.<sup>27</sup> Between 20,958 and 36,676 jobs will be supplier jobs in secondary industries that supply the wireless industry with intermediate goods and services.<sup>28</sup> And between 18,278 and 31,986 will be induced jobs created as incomes earned by the first two categories of workers are spent back into the economy.<sup>29</sup> These figures, moreover, only account for the effects of capital investment in wireless infrastructure and do not count the jobs that will be created as a result of increased broadband services.<sup>30</sup>

In light of our nation’s current fiscal difficulties, it is important to note that this dramatic expansion of high-speed broadband availability will occur at no cost to taxpayers. Indeed, AT&T has explicitly stated that the company will not use money from the Universal Service

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<sup>24</sup> See Press Release, “AT&T to Acquire T-Mobile USA from Deutsche Telekom,” Mar. 20, 2011 (available at <http://investmentwatchblog.com/att-to-buy-t-mobile-us-cnbc-bulletin/>) (“The acquisition will increase AT&T’s infrastructure investment in the U.S. by more than \$8 billion over seven years.”).

<sup>25</sup> See Ethan Pollack, *The Jobs Impact of Telecom Investment*, Policy Memorandum #185, Economic Policy Institute, May 31, 2011, at 2 (attached as Exhibit A). For purposes of this study, a job refers to a job-year (*i.e.*, a job held for a single year). See *id.*

<sup>26</sup> See *id.* at 3.

<sup>27</sup> See *id.*

<sup>28</sup> See *id.*

<sup>29</sup> See *id.*

<sup>30</sup> See *id.*

Fund to finance this expansion of its 4G LTE network.<sup>31</sup> This Transaction thus represents a unique opportunity to harness private funds to accomplish critical public objectives set forth by President Obama and the Commission. Moreover, at a time when the Commission is moving towards comprehensive universal service reform, locking in AT&T's commitment to expand its 4G LTE network to over 97% of Americans with private funds will free up limited universal service funds to target remaining unserved areas, support other important projects, such as telehealth and distance learning, and provide the Commission with additional flexibility to implement much-needed reforms.

In its evaluation of past wireless mergers, the Commission has held consistently that the acceleration of broadband deployment constitutes an important benefit that must be factored into its public interest analysis. In its consideration of the 2005 Sprint-Nextel merger, for example, the Commission found that “the Applicants’ plan for the merged entity to implement its 3G technology . . . over much of its current network, and ultimately upgrade the entire combined Sprint Nextel network . . . should create merger-specific benefits.”<sup>32</sup> Likewise, in its evaluation of the 2004 AT&T Wireless-Cingular merger, the Commission “agree[d] with the Applicants that the additional spectrum the combined entity will have available, in terms of capacity and geographic coverage, should facilitate the combined entity’s deployment of more robust and ubiquitous advanced services.”<sup>33</sup>

The dramatic expansion of access to 4G LTE high-speed broadband service similarly should be given great weight by the Commission in its analysis of this Merger because it

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<sup>31</sup> Juliana Gruenwald, “AT&T’s Stephenson Signals Willingness to Deal,” *National Journal* (May 11, 2011) (available at <http://techdailydose.nationaljournal.com/2011/05/atts-stephenson-signals-willin.php>).

<sup>32</sup> *Sprint/Nextel Order*, 20 FCC Rcd at 14015 ¶ 134.

<sup>33</sup> *AT&T Wireless/Cingular Order*, 19 FCC Rcd at 21607 ¶ 225.

constitutes a substantial transaction-specific benefit. Without the Merger, Applicants have explained that AT&T's 4G LTE network would cover only about 80% of Americans. With the Merger, however, over 97% of Americans will be covered.<sup>34</sup>

There are many reasons why the Transaction will facilitate the significant expansion of AT&T's 4G LTE network. Most critically, there are many areas where AT&T currently lacks the spectrum to deploy LTE but T-Mobile holds AWS spectrum that AT&T can utilize to provide LTE service.<sup>35</sup> Furthermore, the Transaction will provide AT&T with the additional resources, such as new cell sites, and the additional scale to make cost-effective the expansion of its 4G LTE network to less densely populated areas that are more expensive to serve.<sup>36</sup>

Moreover, in contrast to AT&T, T-Mobile has no current plan for offering 4G LTE service to any of its 34 million subscribers nor does it have a path that would enable it to do so. As detailed in Applicants' Public Interest Statement, T-Mobile simply lacks the spectrum necessary to deploy LTE, and sufficient spectrum will not be made available in the near future to remedy this shortfall.<sup>37</sup> Moreover, even if such spectrum were to become available, T-Mobile does not have the capital necessary to deploy LTE. Deutsche Telekom has made clear that T-Mobile must be "able to fund its future itself," and T-Mobile is in no position to make the substantial capital investments in spectrum and infrastructure necessary to deploy a 4G LTE network.<sup>38</sup> Because of the Merger, however, T-Mobile's 34 million customers will have access to AT&T's 4G LTE network.

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<sup>34</sup> *Public Interest Statement* at 55-56.

<sup>35</sup> See Declaration of William Hogg (attached to *Public Interest Statement*) at ¶ 60; Declaration of Rick Moore (attached to *Public Interest Statement*) at ¶ 14.

<sup>36</sup> See *id.* at ¶¶ 13-14.

<sup>37</sup> Declaration of Dr. Kim Kylesback Larsen (attached to *Public Interest Statement*) at ¶¶ 23-35.

<sup>38</sup> Declaration of Thorsten Langheim (attached to *Public Interest Statement*) at ¶ 14.

Given the critical importance of expanding the availability of high-speed broadband throughout the United States, CWA believes that the Commission should give substantial weight to the public interest benefits of AT&T's expanded broadband coverage and should condition its approval of the Merger on the expansion of AT&T's 4G LTE network, including timetables, speed and quality benchmarks, data reporting requirements, and penalties for non-compliance. Specifically, the Commission should require AT&T to follow through on its commitment to build out a 4G LTE network to cover over 97% of Americans within six years. Earlier this year, in the Comcast-NBCU merger proceeding, Comcast made a series of commitments designed to expand broadband deployment in unserved areas and increase broadband adoption in low-income households, including expanding its broadband networks to reach an additional 400,000 homes. The Commission agreed that these commitments would "lead to greater broadband demand, deployment, and adoption" and therefore "adopt[ed] them as conditions so that the public will realize these considerable benefits."<sup>39</sup> *See also In the Matter of Applications Filed by Qwest Communications International Inc. and CenturyTel, Inc. d/b/a CenturyLink for Consent to Transfer Control*, WC Docket No. 10-110 (rel. Mar. 18, 2011) (App. C) (conditioning merger on CenturyLink meeting specific broadband build-out metrics); *In the Matter of Applications Filed by Frontier Communications Corporation and Verizon Communications Inc. for Assignment or Transfer of Control*, 25 FCC Rcd 5972 (App. C) (2010) (conditioning approval of transaction on Frontier meeting specific schedule for expansion of broadband deployment); *In the Matter of Applications Filed for Transfer of Control of Embarq Corporation to CenturyTel, Inc.*, 24 FCC Rcd 8471 (App. C) (2009) (conditioning approval of transaction on merged company meeting

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<sup>39</sup> *In the Matter of Applications of Comcast Corporation, General Electric Company, and NBC Universal, Inc. For Consent to Assign Licenses and Transfer Control of Licenses*, Memorandum Opinion and Order, 26 FCC Rcd 4238, 4333 ¶ 233 (2011).

specified schedule for expanded broadband availability); *In the Matter of AT&T Inc. and BellSouth Corporation Application for Transfer of Control*, 22 FCC Rcd 5662 (App. F) (2007) (conditioning approval of merger on AT&T following through on commitments regarding expanded DSL availability).

CWA urges the Commission to follow that precedent here. While CWA believes that AT&T has every intention of following through on the company's specific commitment to expand its 4G LTE network, the public interest benefits associated with providing 55 million more Americans access to AT&T's 4G LTE network are so great that the Commission should take specific action to ensure that they are realized. *See also AT&T/Centennial Order*, 24 FCC Rcd at 13953, ¶ 90 (stating that "claimed [public interest] benefit[s] must be verifiable").

#### **B. The Merger Will Produce Tangible Benefits for Consumers**

Apart from the expanded 4G LTE high-speed broadband network that will result from the Merger, AT&T's acquisition of T-Mobile will benefit consumers in other important ways. To begin with, the Transaction will improve the quality of service received by both AT&T and T-Mobile customers. Chairman Genachowski has led the way in raising awareness about the looming spectrum capacity crisis. As he said in a speech to the Telecommunications Industry Association earlier this month, "Any objective observer would have to say that the spectrum crunch debate has been put to rest."<sup>40</sup> Unless action is taken to remedy spectrum scarcity, Chairman Genachowski has pointed out, the consequences for consumers will be higher prices, dropped connections, and less innovation.<sup>41</sup>

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<sup>40</sup> *Prepared Remarks of Chairman Julius Genachowski, Federal Communications Commission, Telecommunications Industry Association 2011 Summit* (May 19, 2011).

<sup>41</sup> *See id.*

The spectrum capacity crisis is largely being driven by the proliferation of smartphones and tablets in the wireless marketplace. A typical smartphone, for example, consumes 24 times more data than a traditional cellphone, and tablets can use 122 times the data.<sup>42</sup> With the introduction of the iPhone and iPad, among other devices, AT&T led the way in wireless innovation. The company now has approximately 31 million smartphone users, and at the end of last year, over 60% of its contract subscribers used integrated devices.<sup>43</sup> The consequences of this trend on AT&T customers' demand for spectrum have been staggering. AT&T's mobile data volumes increased by 8,000% between 2007 and 2010, and are projected to increase by another eight to ten times in the next five years.<sup>44</sup>

While AT&T's leadership in mobile broadband has been a good thing for the company and for consumers, it has led to one negative consequence; AT&T currently faces significant network-capacity constraints.<sup>45</sup> These constraints are leading to problems such as dropped calls and slow data speeds in certain major metropolitan areas.<sup>46</sup> AT&T's spectrum shortage is having a tangible and noticeable effect on the company's customers, and this unfortunately is being reflected in customer satisfaction surveys. In January 2011, for example, Consumer Reports found that AT&T was the lowest-rated carrier in overall customer satisfaction for wireless service. While Verizon Wireless received a rating of 74 and Sprint received a rating of 73, AT&T's score was only 60.<sup>47</sup>

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<sup>42</sup> See Fact Sheet, *Spectrum: American Competitiveness, Opportunity, Dollars and the Cost of Delay* (Mar. 22, 2001).

<sup>43</sup> See *Public Interest Statement* at 21.

<sup>44</sup> See *id.* at 22.

<sup>45</sup> See *id.* at 26.

<sup>46</sup> See Declaration of Dennis W. Carlton, Allan Shampine, and Hal Sider (attached to *Public Interest Statement*) ("Carlton Declaration") at ¶ 28.

<sup>47</sup> See *id.* at ¶ 29.

The Merger will alleviate AT&T's network-capacity crisis and thus improve the quality of service received by AT&T customers. AT&T's acquisition of T-Mobile will result in a company with increased cell tower density, a more efficient network, and additional spectrum. This combination of factors will bring substantial benefits to AT&T and T-Mobile customers on a daily basis: fewer dropped and blocked calls, decreased network congestion, and increased broadband speeds.

There are several reasons the Transaction will substantially ease problems associated with network congestion. *First*, integrating existing T-Mobile cell sites into AT&T's network will significantly increase the amount of traffic that can be carried using existing spectrum in the areas covered by such sites. When, for example, a cell covering an area is split into two cells covering the same area, the total amount of traffic that can be handled in that area can double.<sup>48</sup>

*Second*, by integrating the two companies' networks, AT&T, after the Transaction, will be able to eliminate redundant control channels, thus freeing up more spectrum to carry additional traffic. Right now, AT&T and T-Mobile each utilize approximately 4.8 to 10 MHz of spectrum for GSM control channels, thus allowing for significant capacity gains once the companies' GSM networks are merged and redundant control channels are eliminated.<sup>49</sup>

*Third*, AT&T will be able to group channels into larger pools, thus making it more likely that a subscriber will be able to find an open channel. This will allow the companies' integrated network to carry more traffic with the same combined spectrum than the two companies could service independently. The Applicants estimate so-called "channel-pooling efficiencies" alone will be able to produce capacity gains of 10-15% in a large number of areas.<sup>50</sup>

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<sup>48</sup> See Declaration of William Hogg at ¶ 42.

<sup>49</sup> See *id.* at ¶ 48.

<sup>50</sup> See *id.* at ¶ 49.

*Fourth*, AT&T will be able to make more efficient use of spectrum that is currently underutilized by one of the two companies in certain locations. Right now, there are certain areas where AT&T's network is congested but T-Mobile has excess capacity and vice versa. By being able to take advantage of underutilized spectrum in those areas, the integration of the two networks will ease network congestion and result in the more efficient use of both companies' spectrum.<sup>51</sup>

*Fifth*, the combination of AT&T and T-Mobile's spectrum will allow AT&T, following the merger, to free up spectrum now devoted to 3G UMTS/HSPA services for 4G LTE use. This move will have the effect of increasing AT&T's capacity because 4G LTE makes considerably more efficient use of spectrum than does 3G UMTS/HSPA.<sup>52</sup>

With respect to quality of service, the Merger will also bring special benefits to T-Mobile customers. T-Mobile's GSM subscribers will receive immediate access to AT&T's GSM network, which will provide them with improved coverage and better service within buildings. Likewise, T-Mobile's UMTS subscribers, as they are moved to AT&T's network, will also receive improved coverage and better service within buildings. Indeed, AT&T's UMTS coverage is today more than double that of T-Mobile's UMTS network.<sup>53</sup>

In past wireless mergers, the Commission has recognized quality-of-service improvements as an important public interest benefit.<sup>54</sup> Likewise, the positive impact that this Transaction will have on the quality of service received by both AT&T and T-Mobile customers should weigh heavily in the Commission's public interest calculus here. In the AT&T

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<sup>51</sup> See *id.* at ¶ 54.

<sup>52</sup> See *id.* at ¶¶ 24-25.

<sup>53</sup> See *id.* at ¶¶ 57-58.

<sup>54</sup> See, e.g., *Sprint/Nextel Order*, 20 FCC Rcd at 14015 ¶ 132; *AT&T Wireless/Cingular Order*, 19 FCC Rcd at 21602 ¶ 210.

Wireless/Cingular merger, for example, the Commission specifically found that the combination of the two companies' "spectrum and network assets [was] likely to enable the combined entity to achieve improvements in service quality."<sup>55</sup> Indeed, the Commission noted that the post-merger entity would be able to "take advantage of spectral and trunking efficiencies," thus meaning that "the effective increase in available spectrum will be greater than is represented by the simple addition of the two companies' holdings."<sup>56</sup> "The increased effective capacity," the Commission concluded, "should enable the merged entity to make progress in reducing the number of blocked, dropped, and marginal calls currently experienced by Cingular and AT&T customers."<sup>57</sup> Similarly, the Commission found that the Sprint/Nextel merger would lead to "improved service quality as a result of coordinated improvements to" the companies' networks.<sup>58</sup> The Commission specifically concluded that through, among other things, the incorporation of more cell sites into both companies' networks, Sprint and Nextel subscribers would benefit from "fewer coverage holes, improved building penetration, better audio quality, and fewer dropped calls."<sup>59</sup>

The quality of service improvements that will be facilitated by this Merger are a critical transaction-specific benefit. As Applicants have explained, AT&T and T-Mobile utilize similar and compatible technologies for their networks, thus clearing the way for the seamless integration of the two companies' networks.<sup>60</sup> Moreover, the two companies have

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<sup>55</sup> *AT&T Wireless/Cingular Order*, 19 FCC Rcd at 21602 ¶ 210.

<sup>56</sup> *Id.*

<sup>57</sup> *Id.*

<sup>58</sup> *Sprint/Nextel Order*, 20 FCC Rcd at 14015 ¶ 132.

<sup>59</sup> *Id.* at 14015 ¶ 133.

<sup>60</sup> *Public Interest Statement* at 33.

complementary spectrum holdings and “well-matched cell site grids,” thus allowing for the maximization of spectral efficiencies.<sup>61</sup>

Critically, other options are unavailable to AT&T and T-Mobile that would result in similar capacity and quality-of-service improvements. A sufficient quantity of spectrum will not be made available in the near future for wireless broadband to alleviate either company’s spectrum difficulties, and neither will repurposing their existing spectrum be able to solve their problems.<sup>62</sup> Furthermore, the Merger will add far more cell sites to AT&T’s network in the near term than the company would be capable of adding on its own. Because of the lengthy delays inherent in the establishment of new cell sites, it is estimated that AT&T will be able to integrate into its network more than eight times the number of cell sites from T-Mobile than it was able to complete on its own in 2010.<sup>63</sup> Furthermore, T-Mobile cell sites are often located at more advantageous locations than any new sites where AT&T would be able to place its equipment.<sup>64</sup>

Beyond improving customers’ quality of service, the AT&T/T-Mobile Merger will also benefit consumers by lowering prices. As William Shakespeare famously wrote, “What’s past is prologue.”<sup>65</sup> And with respect to prices, history paints a clear picture of what will occur following this Transaction. Over the course of the last twelve years, there have been numerous significant mergers in the wireless industry: Bell Atlantic-GTE-Airtouch in 2000; SBC Wireless-BellSouth Wireless in 2000; Cingular-AT&T Wireless in 2004; Sprint Nextel in 2005; and Verizon Wireless-ALLTEL in 2008, just to name a few. And as demonstrated in the following chart, prices paid by consumers for wireless services have fallen following each merger.

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<sup>61</sup> *See id.*

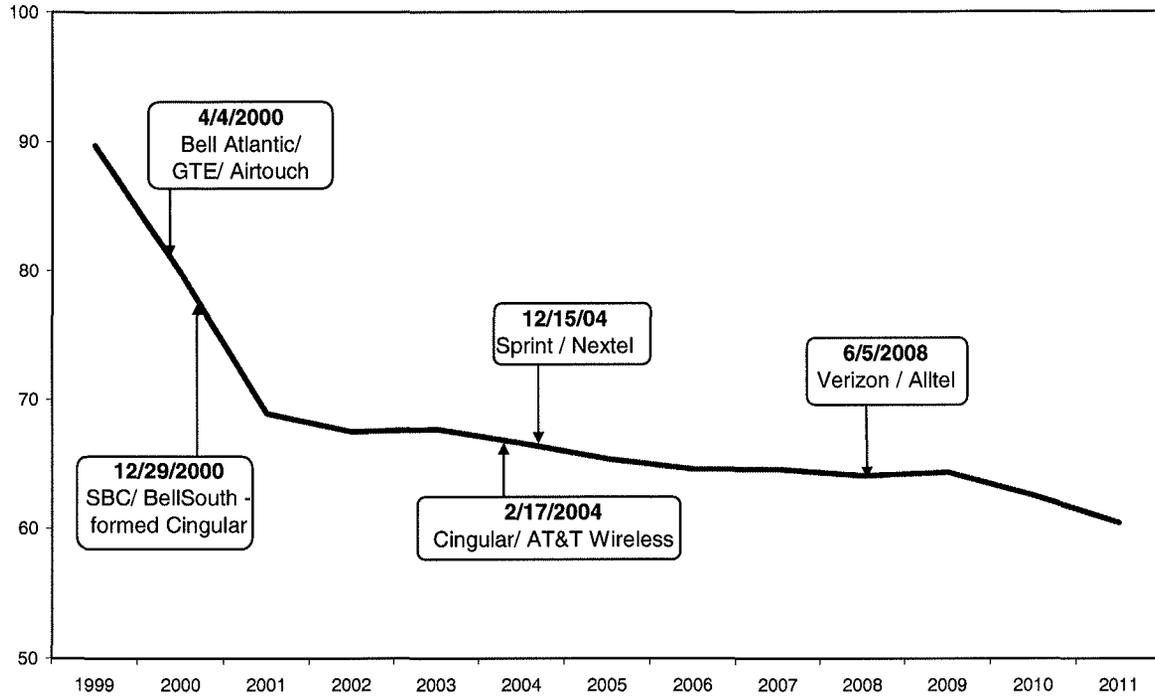
<sup>62</sup> *See id.* at 25-33

<sup>63</sup> *See id.* at 46.

<sup>64</sup> *See id.* at 47.

<sup>65</sup> William Shakespeare, *The Tempest*, Act II, Scene 1.

**Wireless Telephone Prices Decline as Wireless Carriers Merge  
Consumer Price Index - Wireless Services, 1999-2011**

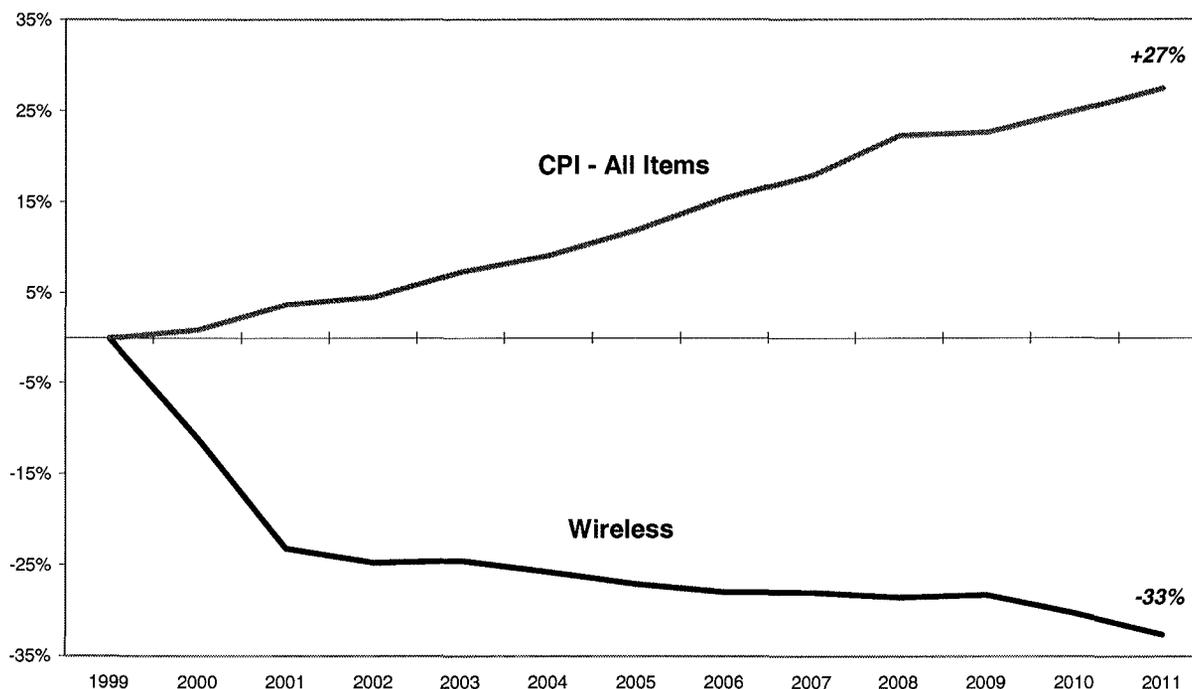


Indeed, according to the Bureau of Labor Statistics inflation in the United States from 1999 to 2011 rose by 27%.<sup>66</sup> Yet, over that same time period, wireless prices (including both voice and data) have actually dropped by 33%<sup>67</sup> as shown in the following chart.

<sup>66</sup> See U.S. Bureau of Labor Statistics, Consumer Price Index-All Items, 1999-2011.

<sup>67</sup> See U.S. Bureau of Labor Statistics, Consumer Price Index-U, Wireless Telephone Services (which includes both voice and data), 1999-2011.

**Wireless Prices Decline 33% While General Inflation Increases 27%**  
**(Wireless prices include voice and data)**  
**1999 - 2011**



To give just one specific example of the dramatic price declines in the wireless industry, the average revenue per text message received by carriers, according to recent figures released by the Commission, decreased by more than 70% from 2005 to 2008.<sup>68</sup>

As was the case with prior mergers, this Transaction will also likely lead to lower prices for consumers. For the reasons set forth above, the Merger will lead to spectrum and network efficiencies that will expand the companies' combined output. In turn, this expanded output, pursuant to fundamental laws of supply and demand, will result in reduced prices. Moreover, the synergies resulting from the Transaction will provide AT&T with a greater capacity to decrease prices. As one industry analyst has stated, "AT&T could use its scale and magnitude of synergy

<sup>68</sup> See *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Fourteenth Report*, 25 FCC Rcd 11407, 11532-33 ¶ 192 (2010) ("*Fourteenth Wireless Competition Report*").

realization to further reduce prices against Verizon and narrow the pricing gap to Sprint, especially for emerging 4G services and rates charged to connected-device users.”<sup>69</sup>

If, on the other hand, the Merger is not approved and AT&T faces ever growing capacity constraints, then AT&T will lose its incentive to attract new customers by reducing prices. Indeed, rather than seeking to win new customers, AT&T will be forced to ration its limited capacity among existing customers in order to combat network congestion, and one of the main ways of doing so would be through price increases.

The choice for consumers is thus clear. With the Merger, AT&T and T-Mobile customers will enjoy the benefits of a larger and more efficient network: fewer dropped and blocked calls; faster connections; and likely lower prices. Without the Merger, however, AT&T and T-Mobile customers will face the inevitable consequences of congestion and spectrum scarcity: more dropped and blocked calls; slower data speeds; and higher prices. Consequently, in evaluating whether to approve this Transaction, the Commission should give substantial weight to these tangible, transaction-specific public interest benefits for consumers.

### **C. The Transaction Will Positively Impact Workers and Strengthen Employee Rights**

In addition to accelerating broadband deployment and benefiting consumers, the AT&T/T-Mobile Merger will create tens of thousands of jobs, boost wages and benefits, improve working conditions, and bolster employee rights. As the representative of approximately 43,000 AT&T wireless employees, CWA’s foremost responsibility when it comes to this Transaction is to ensure that this Merger is in the interest of its members and workers in the wireless industry. The evidence is clear that it is.

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<sup>69</sup> See Citigroup Global Markets, *Telconomy 2011 – Wireless Update*, March 21, 2001.

AT&T is the only wireless company with a unionized workforce. AT&T's management has worked in partnership with CWA to ensure that past mergers worked to the benefit of AT&T's employees, and this Transaction will be no different. Over the past decade, AT&T has expanded through numerous transactions, including those involving Cingular, Dobson, and Centennial. And during that same time, the number of AT&T wireless workers represented by CWA has grown dramatically: from about 9,300 in 2001 to about 43,000 today.

As the AT&T/T-Mobile Merger is being implemented, CWA will strive to ensure, through careful planning and returning overseas work to this country, that there will be no involuntary job losses, and that any workers adversely affected by the Transaction will be able to transition into other similar or better jobs with the company. Moreover, AT&T, because of the Merger, will be in a stronger position to create jobs because it will be better able to expand and extend its business than either AT&T or T-Mobile could have done as separate entities. As discussed above, EPI estimates that AT&T's increased capital expenditures resulting from the Merger will create between 54,834 and 95,959 jobs.<sup>70</sup> In addition, the Merger-related broadband expansion will stimulate the creation of tens of thousands of jobs throughout the economy. And as AT&T grows as a result of the merger, CWA anticipates that there will be further expansion of AT&T employment.

Aside from positively impacting CWA members who work for AT&T and benefitting the economy as a whole, the Merger will also prove to be a boon for T-Mobile employees. When it comes to the subject of workers' rights, the difference between T-Mobile and AT&T is quite striking. While AT&T allows workers to make their own decisions regarding union

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<sup>70</sup> See *supra* Section III.A.

representation free from management interference, historically, T-Mobile has been hostile to unions and has opposed efforts by workers to organize and exercise their basic rights.<sup>71</sup>

Once AT&T completes its acquisition of T-Mobile, more than 20,000 T-Mobile employees will benefit from a dramatically improved working environment. In accordance with the collective bargaining agreement between CWA and AT&T, AT&T has publicly committed to maintain a policy of non-interference with respect to the organizing of T-Mobile employees, leaving the decision of whether to join a union up to individual employees according to a non-confrontational process sanctioned under the National Labor Relations Act.<sup>72</sup> As a result, just as workers at other companies acquired by AT&T, such as Dobson and Centennial, have chosen union representation soon thereafter, CWA believes there is an excellent chance that, in an atmosphere free from fear and intimidation, T-Mobile employees will make this choice as well.

If the Merger is approved and if T-Mobile employees choose to unionize, today's majority non-union wireless industry will become a majority union sector, which could be a significant tipping point leading to higher pay and better working conditions for employees throughout the industry.

Such a development would prove especially beneficial for women and minorities. Women, for example, today constitute approximately two-thirds of the customer service representatives in the wireless industry.<sup>73</sup> African-Americans are also disproportionately employed within the wireless industry. While African-Americans are only 11% of the general labor workforce, they comprise 23% of wireless customer service representatives and 14% of

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<sup>71</sup> See American Rights at Work, *Lowering the Bar or Setting the Standard? Deutsche Telekom's U.S. Labor Practices*, Dec. 2009.

<sup>72</sup> See *Public Interest Statement* at 10.

<sup>73</sup> CWA calculations based on data from U.S. Census Bureau, Current Population Survey, 2009-2010

wireless technicians.<sup>74</sup> Hispanics are also well-represented in the wireless industry's workforce; they, for example, comprise 16 percent of wireless customer service representatives.<sup>75</sup> Given these figures, the Merger, by allowing former T-Mobile employees the opportunity to decide – free from management intimidation – whether they want union representation, could be an important step in making this sector of our economy another exception to the rule of low pay for work performed by women and minorities.<sup>76</sup>

In addition to the aforementioned benefits that will likely come to T-Mobile employees once they work for AT&T, there is another critical reason this Merger is in their interest. Before this Transaction was proposed, it was clear that Deutsche Telekom was going to sell T-Mobile. As reviewed above, Deutsche Telekom indicated that it was no longer willing to commit capital to T-Mobile, and T-Mobile itself lacks the resources necessary to develop the 4G LTE high-speed broadband network the company would need to remain competitive. Indeed, T-Mobile's performance is already beginning to falter. Last year, for example, T-Mobile was the only top wireless carrier to lose customers, and in the fourth quarter of 2010 had a churn rate nearly three times that of AT&T and Verizon Wireless.<sup>77</sup> T-Mobile then lost 471,000 contract customers in the first quarter of 2011.<sup>78</sup> On the whole, the prospects for T-Mobile to remain a viable, independent competitor in the wireless marketplace are bleak. As Morgan Stanley assessed the

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<sup>74</sup> *Id.*

<sup>75</sup> *Id.*

<sup>76</sup> Institute for Women's Policy Research, *Women in Telecommunications: Exception to the Rule of Low Pay for Women's Work* (1995).

<sup>77</sup> See Declaration of David Christopher (attached to *Public Interest Statement*) at ¶ 23.

<sup>78</sup> T-Mobile USA Reports First Quarter 2011 Results, May 9, 2011.

situation earlier this year, “We do not see clear value enhancing strategies for T-Mobile US, with unsolved churn, market share and margin issues.”<sup>79</sup>

For all of these reasons, there is little chance that T-Mobile will survive on its own so the real question before the Commission is whether T-Mobile will be acquired by Sprint or AT&T. And AT&T, by far, is the better option for T-Mobile employees. In contrast to AT&T’s strict non-interference policy with respect to union organizing and positive partnership with CWA, Sprint has a long history of hostility to union organizing and trampling workers’ rights. For example, the organizing drive at La Conexion Familiar, a Sprint long-distance service marketed to Latinos, has become legendary. In a show of courage and solidarity, 70% of employees at the San Francisco call center for La Conexion Familiar joined a petition to the NLRB to hold a union election. In response, Sprint closed the call center. One week before the scheduled election, all call center workers, most of whom were female, immigrants, and Hispanics, were met at the door by guards, handed cardboard boxes, told to collect their belongings, searched and fired en masse. In subsequent proceedings, an NLRB Administrative Law Judge found Sprint guilty of more than 50 legal violations.<sup>80</sup>

In North Carolina, workers at three call centers persevered in the face of Sprint’s relentless anti-union attacks over an eight-year period (1986-1994) and ultimately were successful in gaining union representation. Once the bargaining unit was organized, however, Sprint dragged out contract negotiations for another year-and-a-half, using a variety of delaying

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<sup>79</sup> Morgan Stanley, “Deutsche Telekom: U.S. Options – No Easy Way Out,” Jan. 10, 2011, at 17.

<sup>80</sup> Jon Pattee, “Sprint and the Shutdown of La Conexion Familiar: A Union-Hating Multinational Finds Nowhere to Run,” *Labor Research Review*, Vol. 1, No. 23, Article 8.

tactics. During this time, Sprint was trying to decertify the unit before a collectively bargained contract was ever signed.<sup>81</sup>

Unsurprisingly, these experiences have had a chilling effect on other Sprint workers' interest in forming a union. While AT&T has a policy of non-interference when it comes to union organizing and allows workers to organize without fear of reprisal, Sprint has made it clear that workers are putting their jobs at risk when they attempt to organize a union and that Sprint will fight tooth-and-nail any organizing efforts.

AT&T and Sprint also have very different policies when it comes to outsourcing and keeping jobs in America. Sprint, for example, is the only wireless carrier in the United States that outsources network management, and it has been reported that a "great part" of such work has been sent abroad.<sup>82</sup> Additionally, Sprint outsourced up to 70 percent of its customer contact workforce to places like the Philippines, India, and Mexico.<sup>83</sup> AT&T and CWA, by contrast, negotiated the return of 3,000 DSL-related customer service jobs to the United States, and workers at AT&T have a seat at the table when it comes to outsourcing because the topic continue to be the subject of negotiations between management and the union.

In sum, because of T-Mobile's current financial condition and the choice that Deutsche Telekom has made to no longer fund T-Mobile expansion, the company's workers now face a

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<sup>81</sup> See, e.g., "NLRB Schedules Hearing Over Sprint Charges," Jan. 1, 2004 (available at: [http://www.cwa-union.org/news/entry/nlr\\_b\\_schedules\\_hearing\\_over\\_sprint\\_charges2](http://www.cwa-union.org/news/entry/nlr_b_schedules_hearing_over_sprint_charges2)); "Sprint Workers Squash Decertification," Dec. 1, 1998 (available at: [http://www.cwa-union.org/news/entry/sprint\\_workers\\_quash\\_decertification](http://www.cwa-union.org/news/entry/sprint_workers_quash_decertification)).

<sup>82</sup> See Gulveen Aulakh, "Ericsson To Serve US Clients Using 'Competent' Workforce in India," *The Economic Times*, Nov. 25, 2010 (available at [http://articles.economictimes.indiatimes.com/2010-11-25/news/27620440\\_1\\_ericsson-s-india-global-services-mobile-network](http://articles.economictimes.indiatimes.com/2010-11-25/news/27620440_1_ericsson-s-india-global-services-mobile-network)).

<sup>83</sup> See Alena Semuels, "Sprint Focused on Keeping Customers Happy So They Don't Leave," *Los Angeles Times*, Mar. 5, 2009 (available at <http://latimesblogs.latimes.com/technology/2009/03/sprint-and-cust.html>).

stark choice. One path forward is the AT&T/T-Mobile Merger, a transaction that will allow them to work for an employer that respects the rights of American workers. The other path forward is a merger with Sprint, a transaction that would leave them at the mercy of a company that is hostile to union organizing and has a troubling record of outsourcing. CWA believes that the best choice for T-Mobile's workforce is an obvious one, and that the Commission should take into account the interests of both AT&T and T-Mobile workers in its analysis of the Merger.<sup>84</sup>

#### **IV. THE PUBLIC INTEREST BENEFITS PRODUCED BY THE MERGER GREATLY OUTWEIGH ANY ALLEGED TRANSACTION-SPECIFIC HARMS**

As reviewed above, the AT&T/T-Mobile Merger will produce significant transaction-specific, public interest benefits. It will greatly expand 4G LTE high-speed broadband deployment, thus substantially advancing both the Obama Administration's and the Commission's wireless broadband goals. The Transaction will also improve the quality of service received by AT&T and T-Mobile customers, lower prices, create at least tens of thousands of jobs, promote economic growth, and strengthen the rights of workers.

Weighed against these tangible and overwhelming public interest benefits, opponents of the Merger will present the Commission with speculative harms that are premised on a fundamentally flawed view of the wireless marketplace. The wireless industry is dynamic and constantly evolving; competition among wireless service providers is vibrant and intense. All of this will continue to be the case after the Merger. Additionally, in arguing that the Transaction

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<sup>84</sup> See, e.g., *In re Applications of Puerto Rico Telephone Authority, Transferor, and GTE Holdings (Puerto Rico) LLC, Transferee, For Consent to Transfer Control of Licenses and Authorization Held by Puerto Rico Telephone Company and Celulares Telefonica, Inc.*, 14 FCC Rcd 3122, 3149 ¶ 58 (1999) (noting public benefits of "GTE Holdings' commitments to PRTC's employees").

will harm competition, Merger opponents refuse to recognize the reality that T-Mobile is not positioned to remain a viable independent competitor. The real choice is not whether T-Mobile will exit the marketplace; the die was cast when Deutsche Telekom decided to cut off T-Mobile's funding for expansion. Rather, the question is whether T-Mobile will be acquired by AT&T or Sprint, and the evidence is clear that the AT&T/T-Mobile Merger is the better option for enhancing competition in the marketplace and fostering innovation.

**A. The Wireless Marketplace Is Dynamic and Will Remain Intensely Competitive Following the Merger**

In examining whether a wireless merger will harm competition, the Commission focuses on two concerns. The first is whether the merged entity would be able to harm competition through unilateral actions, and the second is whether competition could be harmed through coordinated interaction among firms in the market.<sup>85</sup>

Turning first to potential unilateral effects, the Commission evaluates whether the merged firm would find "it profitable to alter its behavior following the merger by 'elevating price and suppressing output.'"<sup>86</sup> With respect to the wireless market, such action could "take the form of delaying improvements in service quality or adversely adjusting plan features without changing the plan price."<sup>87</sup>

The evidence is clear that the AT&T/T-Mobile Merger will not provide the merged entity with the incentive to suppress output or raise prices. Indeed, as explained above, given the capacity constraints currently faced by AT&T as well as the spectral and network efficiencies resulting from the merger, the Transaction will provide AT&T with the incentive and ability to

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<sup>85</sup> See, e.g., *AT&T/Centennial Order*, 24 FCC Rcd at 13939 ¶ 52.

<sup>86</sup> *Verizon Wireless/ALLTEL Order*, 23 FCC Rcd at 17485 ¶ 84.

<sup>87</sup> *Id.*

expand output and lower prices. Moreover, given the vibrant competition that exists in the wireless marketplace, any attempt by AT&T to suppress output and raise prices following the Merger would be counterproductive. Were AT&T to embark upon such a course of action, rival service providers would be the ultimate beneficiaries.

The wireless industry is intensely competitive. In 18 of the top 20 U.S. markets, for instance, there are currently five or more facilities-based wireless competitors, including Verizon, Sprint, low-cost no-contract carriers like MetroPCS and Leap, and regional carriers such as US Cellular and Cellular South that offer nationwide service plans. Indeed, the FCC estimated just last year that more than 70 percent of Americans live in areas served by five or more facilities-based mobile wireless service providers.<sup>88</sup>

Following the merger, there will still be four or more wireless competitors in each of these areas. Therefore, pursuant to Commission precedent,<sup>89</sup> there is little risk that the Merger will lead to competitive harm in any of these markets. The Commission has specifically found that competitive harm is unlikely to result in any local markets in which there will be four or more genuine competitors present after a merger.<sup>90</sup> And this will be the case following the Merger in the markets where the substantial majority of Americans live.

Even in markets where three or fewer genuine, facilities-based competitors will remain following an acquisition, the Commission has indicated that the “presence and capacity of rival service providers, taking into account near-term opportunities to obtain access to additional spectrum” may mean that “the response of rival service providers would likely be sufficient to

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<sup>88</sup> See *Fourteenth Wireless Competition Report*, 25 FCC Rcd at 11450 (Table 5).

<sup>89</sup> See, e.g., *Verizon Wireless/ALLTEL Order*, 23 FCC Rcd at 17490 ¶ 98; *Sprint/Nextel Order*, 20 FCC Rcd at 14011 ¶ 119.

<sup>90</sup> See *supra* note 89.

deter any unilateral actions or anticompetitive behavior by the merged entity.”<sup>91</sup> CWA does not analyze each individual market in these comments and does not rule out the possibility that the Commission may conclude, consistent with prior wireless mergers, that targeted divestitures may be necessary in certain markets. As a general matter, however, the realities of the wireless industry make it unlikely that competitive harms will result even in markets where only three facilities-based competitors remain post-Merger.

For example, while the Commission does not take into account Mobile Virtual Network Operators (MVNOs) or resellers in computing initial concentration measures within markets, it does evaluate their effect on competition in its analysis of local markets and has recognized that they can provide constraints against anticompetitive behavior.<sup>92</sup> Therefore, it is critical to note that the MVNO segment of the wireless market is growing rapidly. Indeed, the number of MVNOs in the marketplace doubled from 2006-2010.<sup>93</sup> Moreover, the wholesale segment of the wireless market is thriving; current and emerging wholesale providers are constructing advanced wireless networks that are enhancing competition. Clearwire, for example, is the nation’s largest spectrum holder and its 4G service is currently resold under the brands of Sprint and many cable operators. Additionally, Clearwire just struck a deal with Best Buy, which will now use Clearwire’s spectrum to market 4G services to customers nationwide at Best Buy’s retail stores.<sup>94</sup> Moreover, LightSquared is expected to cover 100 million Americans by the end of 2012 and 260 million people by 2015 with its wholesale-only integrated wireless broadband and

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<sup>91</sup> *Verizon Wireless/ALLTEL Order*, 23 FCC Rcd at 17490 ¶ 98.

<sup>92</sup> *See, e.g., id.* at 17481 ¶ 74.

<sup>93</sup> *See* “What’s Next for the Nation’s Roughly Four Dozen MVNOs?,” *Fierce Wireless* (available at: <http://www.fiercewireless.com/special-reports/whats-next-nations-roughly-four-dozen-mvnos>)

<sup>94</sup> *See Public Interest Statement* at 92-93.

satellite network.<sup>95</sup> All in all, MVNO and wholesale competitors are placing significant competitive pressure on AT&T, and their importance in the wireless marketplace will only increase in the future. The Commission in its market analysis should therefore recognize that they will provide additional constraints on the ability of AT&T to engage in anticompetitive behavior following the Merger.

The nature of the wireless industry also will sharply restrict AT&T's incentive and ability to harm competition in any local market. The wireless marketplace is not static. Service providers are constantly offering new devices, new operating systems, faster speeds, and different pricing plans, and they are taking these steps in order to retain their current customers and win new ones. Companies need to innovate constantly because the evidence is clear that wireless consumers are more than willing to switch carriers when they perceive better value elsewhere. Specifically, an estimated 25 percent of customers in the United States switch to different wireless service providers each year.<sup>96</sup> Companies in the marketplace are therefore in a constant struggle both to retain their current customers and to attract new ones, an imperative that is driving them to lower prices, offer new service plans, applications, and devices, and make tens of billions of dollars in capital investments to improve the quality of their service. AT&T, or any other service provider, simply cannot sit still and hope to profit in this marketplace, and that will not change following the Merger.

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<sup>95</sup> See *id.* at 93.

<sup>96</sup> *Fourteenth Wireless Competition Report*, 25 FCC Rcd at 11562 ¶ 248. The fluid nature of the marketplace is in part due to Commission policies, such as local number portability, that have reduced switching costs. See Leslie M. Marx, Professor of Economics, Duke University, and Former Chief Economist, Federal Communications Commission, *Economic Report on the Proposed Acquisition of T-Mobile USA, Inc. by AT&T Inc.*, May 31, 2001, at 25-26 (attached as Exhibit B) ("*Marx Report*").

The conduct of AT&T and other existing wireless service providers is also constrained by the potential of new carriers entering the market. As former FCC Chief Economist Leslie Marx explains, “There are features of the mobile telephony/broadband services markets in the United States that make them more accessible to new entrants than in certain other countries.”<sup>97</sup> For example, mobile wireless service providers in the United States operate under a Receiving Party Pays (RPP) paradigm rather than the Calling Party Pays paradigm that exists in most other countries, and “RPP is likely to make U.S. local mobile telephony markets more competitive, more easily contestable by new entrants, and less prone to anticompetitive exploitation of large customer bases—say due to first-mover advantage or a merger.”<sup>98</sup> As a result, “the RPP regime in the U.S. mobile wireless industry is likely to provide spectrum holders that are planning to expand/launch new services with a better ability to challenge incumbents than the one enjoyed by entrants in the rest of the world.”<sup>99</sup>

Moreover, established carriers, such as AT&T, are limited in their ability to compete with new and/or growing service providers by their obligations to continue to provide service under legacy technologies. This need specifically limits “the extent to which AT&T can deploy [its] spectrum and other network resources to compete with new entrants offering services based on next-generation technologies.”<sup>100</sup> Leslie Marx thus concludes that “one concern associated with having firms in a market with large market shares, that they might act to preclude profitable entry, may be less of a concern here. Legacy obligations mean that the larger firms may be more

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<sup>97</sup> *Marx Report* at 24.

<sup>98</sup> *Id.*

<sup>99</sup> *Id.* at 25.

<sup>100</sup> *Id.* at 27.

limited in their ability to take advantage of technological advances to protect their market shares than would otherwise be the case.”<sup>101</sup>

In addition to examining the potential for a merged entity to engage in unilateral action that harms competition, the Commission also analyzes whether a merger will increase the likelihood that firms in the market will be able to engage in anti-competitive behavior by “explicitly or tacitly coordinating their actions.”<sup>102</sup> Any concern about this Merger facilitating anti-competitive collusion within the wireless marketplace is not realistic. Several factors in the wireless industry strongly discourage anti-competitive coordination or collusion. *First*, as the Commission has recognized, the use by service providers of different wireless network technologies “help make the process of technological development and innovation an effective constraint on coordinated interaction” in the wireless market.<sup>103</sup> This is because “diverse and heterogeneous services make it more difficult for competitors to reach terms of coordination.”<sup>104</sup>

*Second*, companies in the wireless industry do not just compete on a single variable – price – but rather distinguish themselves with respect to a number of elements, including operating platforms, speed, and devices. This makes it much more difficult for firms both to reach anticompetitive agreements and to monitor compliance with those agreements.<sup>105</sup>

*Third*, major players in the industry are under constant threat by the prospect of new entrants or the rapid growth of smaller rivals. The Commission has recognized the importance of these so-called “mavericks” in constraining the ability of firms to engage in anti-competitive

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<sup>101</sup> *Id.*

<sup>102</sup> *Sprint/Nextel Order*, 20 FCC Rcd at 13995 ¶ 69.

<sup>103</sup> *Id.* at 13998 ¶ 81.

<sup>104</sup> *Id.* at 13999 ¶ 83.

<sup>105</sup> *See, e.g., Carlton Declaration* at ¶¶ 148-52.

coordinated action,<sup>106</sup> and there are two carriers in the marketplace today who are paradigmatic examples of mavericks. MetroPCS has increased its subscriber base by approximately 17 times over the past nine years (from about 500,000 in 2002 to approximately 8.9 million today), claims now to have a larger footprint than Sprint, is rapidly deploying 4G service, and is gaining substantial market share in large metropolitan areas.<sup>107</sup> Likewise, Leap's subscriber base has increased by 274 percent in the last seven years, growing from about 1.47 million to 5.5 million customers, its network covers 277 million people, and it plans to launch 4G service later this year.<sup>108</sup> In short, both of these mavericks are rapidly expanding and poised to make their larger rivals pay should they seek to engage in anti-competitive collusion.

**B. The Marketplace Will Be More Competitive If T-Mobile Is Acquired by AT&T Instead Of Sprint**

The preceding analysis is premised on the implicit assumption that there are two possible futures: One where AT&T acquires T-Mobile; and another where T-Mobile is an independent and successful competitor to AT&T. Even were this assumption to be accurate, the transaction-specific public interest benefits resulting from the Merger would substantially outweigh any transaction-specific public interest harms for the reasons CWA has detailed.

It is important, however, for the Commission to recognize that such an assumption is fundamentally flawed. As reviewed above, T-Mobile will not remain a viable, independent competitor in the wireless marketplace. Deutsche Telekom has cut off funding for T-Mobile's expansion, and T-Mobile lacks the spectrum and capital necessary to deploy the 4G LTE network it will need to remain competitive. Consequently, T-Mobile will likely be sold to either AT&T or Sprint, and the AT&T/T-Mobile Merger easily represents the better choice to enhance

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<sup>106</sup> See, e.g., *AT&T Wireless/Cingular Order*, 19 FCC Rcd at 21584 ¶ 160.

<sup>107</sup> See *Public Interest Statement* at 82-86.

<sup>108</sup> See *Public Interest Statement* at 86-88.

competition and benefit consumers. AT&T is well-equipped from a financial, technological, and managerial standpoint to maximize T-Mobile's assets. Sprint, by contrast, is overleveraged, operates networks that are incompatible with T-Mobile's, and has struggled to integrate past acquisitions.

AT&T's acquisition of T-Mobile will permit T-Mobile's wireless assets to be seamlessly integrated into a complementary wireless network, which will help AT&T reduce costs, offer improved service to consumers, and therefore, enhance competition. To begin with, AT&T has the financial resources that are necessary to develop T-Mobile's assets fully. Its credit rating is investment grade, AT&T has a healthy debt-to-equity ratio, and its net profits are strong. Even should credit agencies temporarily downgrade AT&T's rating after the Merger, it still would be well within investment grade parameters.

At \$183 billion,<sup>109</sup> AT&T's market capitalization is four-and-one-half times the \$39 billion T-Mobile purchase price.<sup>110</sup> AT&T has stated that it can fund the total price from internally generated cash and the \$14 billion in stock it will pay to Deutsche Telekom, although it will need temporarily to borrow up to \$20 billion through a one-year "bridge loan."<sup>111</sup> While Sprint's total debt-to-equity ratio was 131%<sup>112</sup> at the end of the first quarter of 2011, AT&T's was a much healthier 58%,<sup>113</sup> which means AT&T will be able to absorb the acquisition of T-Mobile more easily. From 2008 to 2010, AT&T had net profits of \$30.3 billion, even after

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<sup>109</sup> AT&T Inc., Yahoo! Finance, <http://finance.yahoo.com/q?s=T>.

<sup>110</sup> *Public Interest Statement* at 16.

<sup>111</sup> *Id.*

<sup>112</sup> Sprint Returns and Ratios, Forbes, <http://finapps.forbes.com/finapps/jsp/finance/compinfo/Ratios.jsp?tkr=S>.

<sup>113</sup> AT&T Returns and Ratios, Forbes, <http://finapps.forbes.com/finapps/jsp/finance/compinfo/Ratios.jsp?tkr=T>.

recording some \$28 billion in non-cash charges for changes in pension and post-retirement benefit assumptions.<sup>114</sup>

Sprint, by contrast, likely would have significant difficulties in modernizing and growing T-Mobile's assets. To be sure, Sprint is making incremental progress in digging itself out of the hole that it created with the Sprint/Nextel merger. It has recently reduced losses per share, lowered its churn rate and raised its average revenue per customer. In addition, it currently has more spectrum than any competitor and is pursuing a viable strategy for 4G deployment.

Nevertheless, Sprint still faces challenges, and the last thing that the company needs right now is to expose itself to another potentially disastrous Nextel-like transaction. Sprint, for example, currently possesses a non-investment or "junk" credit rating and has a debt-to-equity ratio that is more than twice that of AT&T's.<sup>115</sup> Indeed, on April 22, 2011, Moody's lowered Sprint's non-investment grade rating to "Ba3" with a negative outlook.<sup>116</sup> The rating agency predicted that "Sprint's credit quality 'is likely to deteriorate as the company spends heavily to modernize its network while attempting to formulate its long-run (fourth-generation) wireless strategy.'"<sup>117</sup> It further noted that "Sprint expects to increase its capital investment by about \$1 billion to \$2 billion a year starting in 2012, hampering cash flow . . . [and] it faces debt maturities and high capital requirements that could weaken its cash position beyond next year[, which] was a 'factor considered in our negative outlook.'"<sup>118</sup>

For these reasons, Sprint would have a very difficult time making the capital expenditures necessary to support a successful merger with T-Mobile. In 2010, Sprint's capital expenditures

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<sup>114</sup> AT&T 2010 Annual Report at 60.

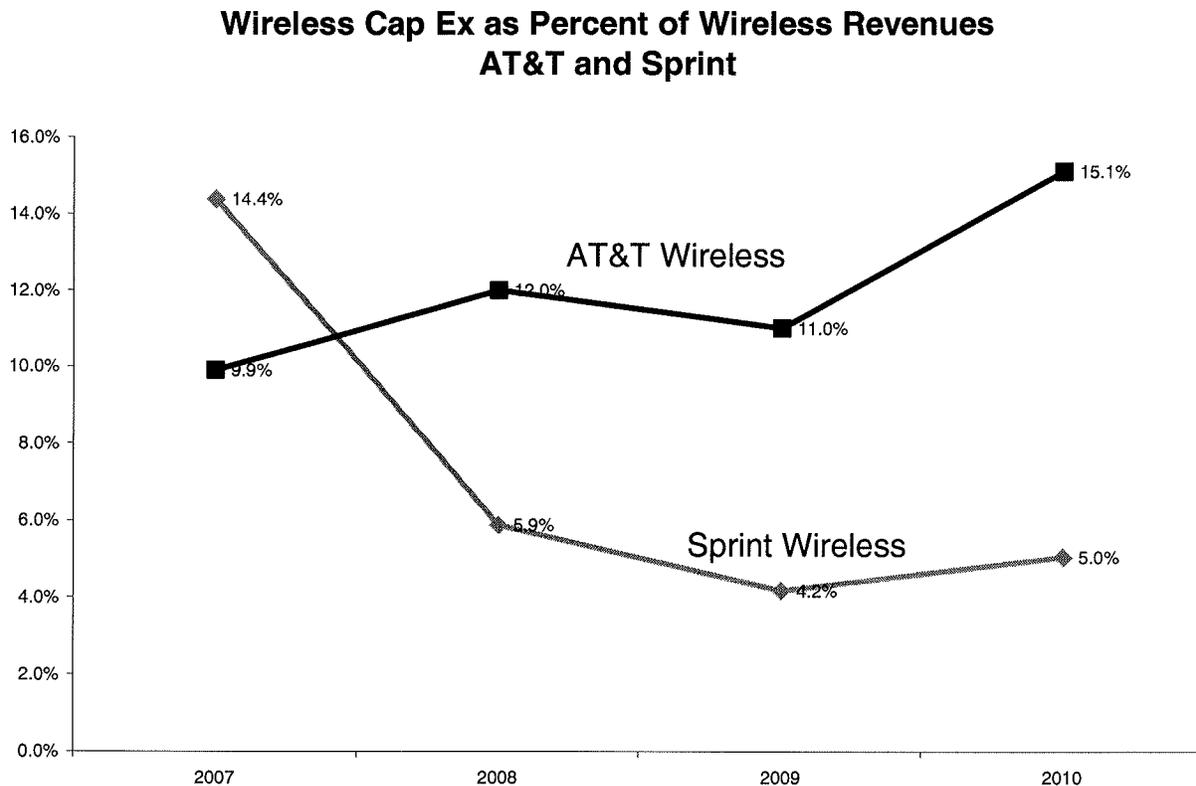
<sup>115</sup> Sprint Nextel Corp., Standard & Poor's, <http://www.standardandpoors.com/>.

<sup>116</sup> Updated: Moody's Downgrades Sprint Credit Rating Another Notch, Outlook Negative, <http://sprintconnection.kansascity.com/?q=node/1769>.

<sup>117</sup> *Id.*

<sup>118</sup> *Id.*

were only five percent of revenues, compared to AT&T's 15.1%.<sup>119</sup> Over the past four years (2007-2010), Sprint's capital expenditures have declined 71 percent, from \$5.0 billion in 2007 to \$1.4 billion in 2010.<sup>120</sup> As the chart below illustrates, Sprint's capital expenditures have been on a four-year decline, whereas AT&T's wireless infrastructure investment has steadily increased.



Indeed, the additional \$8 billion in capital expenditures that AT&T has committed to make to expand its 4G LTE network to cover over 97% of the U.S. population represents approximately four times Sprint's entire capital spending for 2010. The additional debt that Sprint would need to incur to acquire T-Mobile would further weaken Sprint's financial position, which would make it very difficult for Sprint to continue the progress that it has recently made in

<sup>119</sup> See Morgan Stanley, "Sprint Quarterly Update," Apr. 25, 2011; Morgan Stanley, "AT&T Quarterly Update," Apr. 21, 2011;

<sup>120</sup> Sprint Nextel Reports Fourth Quarter and Full Year 2010 Results, Sprint, [http://newsroom.sprint.com/article\\_display.cfm?article\\_id=1796](http://newsroom.sprint.com/article_display.cfm?article_id=1796).

bouncing back from its disastrous merger with Nextel. In short, Sprint simply does not have the resources at this time to be able to absorb T-Mobile successfully.

Beyond these financial factors, there are also important technological factors that come into play. Sprint would have far more difficulty integrating T-Mobile assets into its network from a technical standpoint because Sprint would face the challenge of merging four different networks utilizing four different wireless technologies that pose significant interoperability problems. T-Mobile, for example, uses GSM for its basic network which has significant interoperability problems with Sprint's CDMA-based system. AT&T and T-Mobile, by comparison, utilize similar and compatible technologies for their networks.<sup>121</sup>

Finally, AT&T has a proven track record of managing acquisitions smoothly and emerging from them with a strengthened company. AT&T has expanded through numerous transactions, including those involving Cingular, Dobson, and Centennial, and has been able to use these assets to offer new and improved service to consumers. In 2010 alone, AT&T invested approximately \$8 billion in its wireless networks, including through acquisitions and spectrum purchases.<sup>122</sup> AT&T states that it uses acquisitions to “strengthen the reach and sophistication of our network facilities, increase our large-business customer base and enhance the opportunity to market wireless services to that customer base.”<sup>123</sup>

On the contrary, the story of the Sprint-Nextel merger has emerged as a cautionary tale for corporate America on the dangers of poorly conceived and managed acquisitions, and Sprint is also struggling to implement its recent transaction with Clearwire. As Moody's recently noted, “Sprint is still struggling to address deficiencies in its wireless networks stemming from

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<sup>121</sup> *Public Interest Statement* at 33.

<sup>122</sup> AT&T 2010 Annual Report at 49.

<sup>123</sup> *Id.* at 42.

its 2005 acquisition of Nextel ... [and Clearwire] ... [and] is hurt by a 'disastrous structure' and lack of flexibility ...."<sup>124</sup>

In short, financial factors, technological considerations, and recent history all point to the same conclusion. While AT&T's acquisition of T-Mobile will strengthen the company, allowing AT&T to expand output, improve quality of service, and reduce prices, Sprint would be hobbled by a merger with T-Mobile. Sprint would struggle to make the capital expenditures necessary to exploit T-Mobile's assets, deal with an increased debt burden, and integrate the two companies' incompatible technologies into a single network. The AT&T/T-Mobile Merger is therefore the better choice for competition in the wireless marketplace and for consumers.

**C. The Commission Should Retain the Market Definitions That It Has Employed in Recent Wireless Mergers**

The Commission has consistently evaluated wireless mergers using nearly identical product and geographic market definitions, and the Commission should not depart from those definitions here.<sup>125</sup> The appropriate product market remains the combined mobile telephony/broadband service market, and the geographic market should continue to be a local market, rather than a national or regional one.

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<sup>124</sup> Updated: Moody's Downgrades Sprint Credit Rating Another Notch, Outlook Negative, <http://sprintconnection.kansascity.com/?q=node/1769>.

<sup>125</sup> See *AT&T-Centennial Order*, 24 FCC Rcd at 13932-36 ¶¶ 37-45; *Verizon Wireless/ALLTEL Order*, 23 FCC Rcd at 17469-73 ¶ 45-52; see also *Sprint/Nextel Order*, 20 FCC Rcd at 13989 ¶ 51, *Verizon Wireless/RCC Order*, 23 FCC Rcd at 12484-85 ¶ 39, *AT&T-Dobson Order*, 22 FCC Rcd at 20310 ¶ 25

## 1. The Appropriate Product Market Is a Combined Mobile Telephony/Broadband Services Market

Most recently, the Commission has evaluated similar wireless mergers in the context of the combined “mobile telephony/broadband services market.”<sup>126</sup> This is an expansion of the Commission’s prior “mobile telephony services” product definition, which the Commission broadened in order to include “the recent significant mobile broadband advances to better reflect this component of emerging, next-generation wireless services.”<sup>127</sup> As the Commission has previously determined, “there are risks associated with defining product markets too narrowly.”<sup>128</sup> To avoid an overly cabined product market, the Commission includes “older voice and data services as well as the emerging mobile broadband product markets under the combined market for mobile telephony/broadband services ... in order to ensure a reasonable assessment of any potential competitive harm resulting from the proposed transaction under review.”<sup>129</sup> There is no reason to depart from that analysis here.

The Commission stated in the *Fourteenth Wireless Competition Report* that its “analysis of the mobile wireless services industry includes voice, messaging, and broadband services because they often jointly use the same spectrum, network facilities, and customer equipment; and many mobile providers have integrated the marketing of these services, often offering them in bundles. Also, consumers are increasingly substituting among voice, messaging, and data services, and, in particular, are willing to substitute from voice to messaging or data services for an increasing portion of their communication needs.”<sup>130</sup>

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<sup>126</sup> *AT&T-Centennial Order*, 24 FCC Rcd at 13932 ¶ 37; *Verizon Wireless/ALLTEL Order*, 23 FCC Rcd at 17469-70 ¶ 45.

<sup>127</sup> *Verizon Wireless/ALLTEL Order*, 23 FCC Rcd at 17469-70 ¶ 45; see *AT&T-Centennial Order*, 24 FCC Rcd at 13932 ¶ 37.

<sup>128</sup> *Verizon Wireless/ALLTEL Order*, 23 FCC Rcd at 17469-70 ¶ 45.

<sup>129</sup> *Verizon Wireless/ALLTEL Order*, 23 FCC Rcd at 17470 ¶ 46.

<sup>130</sup> *Fourteenth Wireless Competition Report*, 25 FCC Rcd at 11430 ¶ 8.

AT&T and T-Mobile offer both next-generation mobile services as well as traditional voice services that, by definition, are included in the Commission's mobile telephony/broadband service market. Both companies also have integrated the marketing of these services and offer them in bundles. As a result, the Commission's mobile telephony/broadband service market definition is appropriate for evaluating this Merger.

## **2. The Appropriate Geographic Market Is a Local Market, Not A Regional or National Market**

To determine the relevant geographic market for reviewing a wireless merger, the Commission has applied the "hypothetical monopolist test." This test seeks to measure the area in which consumers shop for a product or service by identifying the region "in which a hypothetical monopolist that is the only producer of the relevant product or service in the region could profitably impose at least a 'small but significant and nontransitory increase' in the price of the relevant product, assuming that the price of all products provided elsewhere do not change."<sup>131</sup>

Employing this analysis, the Commission has determined that the relevant geographic market for mobile telephony/broadband services is a local area rather than a larger regional or nationwide area.<sup>132</sup> Consumers, the Commission has pointed out, are very unlikely to "travel across the county to purchase their wireless service."<sup>133</sup> In addition, consumers generally wish to purchase their wireless service locally so that they are able to obtain a local phone number.<sup>134</sup> In terms of the specific boundaries of local markets, the Commission uses CMAs and CEAs to evaluate mergers because they provide "useful cross-checks on each other and, together, they

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<sup>131</sup> *AT&T Wireless/Cingular Order*, 19 FCC Rcd at 21561 ¶ 82.

<sup>132</sup> *See Verizon Wireless/ALLTEL Order*, 23 FCC Rcd at 17470-71 ¶ 49; *AT&T-Centennial Order*, 24 FCC Rcd 13934 ¶ 41.

<sup>133</sup> *AT&T Wireless/Cingular Order*, 19 FCC Rcd at 21562 ¶ 87

<sup>134</sup> *See id.*

help ensure that the Commission’s analysis does not overlook local areas that require more detailed analysis.”<sup>135</sup> CEAs represent consumer travel patterns for employment and personal reasons, and CMAs are the Commission’s original geographic area for cellular licenses that help the Commission identify where consumers will be able to choose among the same competitors.<sup>136</sup>

While the Commission has been confronted many times with the argument that it should define the mobile telephony/broadband network to be national in scope, it has squarely rejected that argument time and time again,<sup>137</sup> and there is no reason for the Commission to reach a different result here. While, for example, it is true that carriers generally offer consumers calling and/or data plans that are national in scope, the Commission has pointed out that “[t]he scope of a plan is a feature of the product being offered, not an indication of where users may travel to purchase the service.”<sup>138</sup> Additionally, the Commission has found that although wireless prices are often set on a national level, this “does not undercut the finding of a local geographic market.”<sup>139</sup> As Leslie Marx explains, the “broad geographic coverage” provided by wireless carriers and the “offering of service plans . . . at a uniform price” are facts that “are not directly relevant for the central question of geographic market definition based on customer location—namely whether a localized price increase or service quality reduction would be feasible and

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<sup>135</sup> *Verizon Wireless/ALLTEL Order*, 23 FCC Rcd at 17470-71 ¶ 49.

<sup>136</sup> *Id.* at 17471 ¶ 49 & n.200.

<sup>137</sup> *Verizon Wireless/ALLTEL Order* 23 FCC Rcd at 17472-73 ¶ 52; *Verizon Wireless/RCC Order*, 23 FCC Rcd at 12485 ¶ 41; *AT&T/Dobson Order*, 22 FCC Rcd at 20310 ¶ 25; *AT&T Wireless/Cingular Order*, 19 FCC Rcd at 21562 ¶ 87.

<sup>138</sup> *AT&T Wireless/Cingular Order*, 19 FCC Rcd at 21562 ¶ 87.

<sup>139</sup> *Verizon Wireless/RCC Order*, 23 FCC Rcd at 12485 ¶ 41.

profitable to a local monopoly seller. This is the proper question, even when these services include national coverage.”<sup>140</sup>

Notwithstanding the fact that carriers generally offer national coverage at a uniform price, “[p]roviders of mobile/telephony/broadband services can and do discriminate on price and service quality between customers in different geographic areas.”<sup>141</sup> The Commission has noted that promotions and handset promotions vary among markets,<sup>142</sup> and AT&T confirms that this is still the case.<sup>143</sup> In particular, wireless service providers utilize “‘local online offers’ associated with a specific zip code.”<sup>144</sup> Additionally, “[p]roviders also discriminate on the basis of quality, or equivalently on the basis of quality-adjusted prices.”<sup>145</sup> Many of the factors that determine a carrier’s quality of service, such as the amount of spectrum it owns, its level of traffic, and its deployed level of network infrastructure, “interact on a local level. For example, high volumes of traffic in one local area can affect the quality of service experienced by all customers in that local area without necessarily affecting service to customers in other geographic areas. Because of these local effects, there is a sense in which the providers of mobile telephony/broadband services are offering services that differ in quality across geographic areas.”<sup>146</sup> Consequently, wireless carriers end up competing against each other at a local level on the basis of quality. As Leslie Marx concludes, “[a] provider is more likely to invest in quality improvements for a given

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<sup>140</sup> *Marx Report* at 4.

<sup>141</sup> *See id.*

<sup>142</sup> *Sprint/Nextel Order* 20 FCC Rcd at 13989 ¶ 55.

<sup>143</sup> *See Public Interest Statement* at 74; Declaration of David Christopher at ¶ 13.

<sup>144</sup> *See Marx Report* at 5.

<sup>145</sup> *See id.*

<sup>146</sup> *Id.*

metropolitan area . . . when it faces competition for local customers living and residing in that area.”<sup>147</sup>

It is likely profitable for wireless service providers to engage in geographic discrimination with respect to price and quality.<sup>148</sup> This is in part because of demand-side and supply-side factors. For example, “[i]n a geographic area where a provider is close to its capacity for providing a target level of quality, adding customers in that geographic area comes at a higher cost, relative to adding customers in areas where capacity constraints are less binding.”<sup>149</sup> This is also in part because consumers are for the most part unable to defeat price and quality distinctions between local markets on the basis of arbitrage. “There is no way for a customer using services in one city or town to ‘import’ quality improvements to a network made elsewhere,”<sup>150</sup> and it would be inconvenient and difficult for a customer to mislead a carrier about his or her location in order to take advantage of geographic pricing differences.<sup>151</sup>

In short, there has been no change in circumstances that should lead the Commission to change its local geographic market analysis for this Merger. The Commission has previously determined that the relevant geographic market is “the area within which a consumer is most likely to shop for mobile telephony/broadband services,”<sup>152</sup> and market research supplied by the Applicants and supported by independent sources confirms that consumers continue to shop for wireless services in their local area.<sup>153</sup> Consequently, consistent with past precedent, the Commission should evaluate this merger with respect to its effect on local markets and consider

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<sup>147</sup> *Id.* at 6.

<sup>148</sup> *See id.* at 7.

<sup>149</sup> *Id.*

<sup>150</sup> *Id.* at 6.

<sup>151</sup> *See id.* at 6-7.

<sup>152</sup> *Verizon Wireless/ALLTEL Order*, 23 FCC Rcd at 17472-73 ¶ 52.

<sup>153</sup> *Public Interest Statement* at 73.

in its analysis all of the competitors in a local market, regardless of the other markets in which those competitors may offer service.<sup>154</sup>

**D. The Commission Should Employ an Updated Spectrum Screen to Take Account of Recent Industry Developments**

In its evaluation of local markets, the Commission employs a two-part screen “to eliminate from further review those [local] markets in which there are clearly no competitive harm relative to today’s generally competitive marketplace.”<sup>155</sup> The first part of the screen involves market concentration as measured by the Herfindahl-Hirschman Index (“HHI”). The second part of the screen involves the input market of spectrum that is suitable for the provision of mobile telephony/broadband services.

To determine if spectrum should be included in the so-called spectrum screen (“the Screen”), the Commission assesses “whether the spectrum is capable of supporting mobile service given its physical properties and the state of equipment technology, whether the spectrum is licensed with a mobile allocation and corresponding service rules, and whether the spectrum is committed to another use that effectively precludes its uses for mobile telephony/broadband service.”<sup>156</sup> The Commission applies the Screen on a market-by-market basis.<sup>157</sup> In the past, the Commission has considered adding spectrum to the Screen if the spectrum “will meet the criteria for suitable spectrum within two years.”<sup>158</sup> The U.S. Department of Justice’s Merger Guidelines, however, no longer limit the relevant time horizon to just two years, and “[g]iven the substantial

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<sup>154</sup> *Verizon Wireless/ALLTEL Order*, 23 FCC Rcd 17472-73 ¶ 52.

<sup>155</sup> *Verizon Wireless/RCC Order*, 23 FCC Rcd at 12489 ¶ 51.

<sup>156</sup> *Verizon Wireless/ALLTEL Order*, 23 FCC Rcd at 17473, 17477 ¶¶ 53, 62 (“We find that the same [mobile communications] factors apply to mobile telephony/broadband service.”).

<sup>157</sup> *Id.* at 17477 ¶ 62

<sup>158</sup> *Verizon Wireless/ALLTEL Order*, 23 FCC Rcd at 17477 ¶ 62; *AT&T-Centennial Order*, 24 FCC Rcd at 13935 ¶ 43.

investment required to launch a new telephony/broadband service, a somewhat longer time horizon might be more appropriate in this case.”<sup>159</sup>

To date, the Screen has included cellular, broadband PCS, Specialized Mobile Radio (“SMR”), and 700 MHz spectrum as well as AWS-1 and 55 MHz of BRS spectrum in those local markets where it is available.<sup>160</sup> That Screen, however, no longer reflects the reality of the wireless marketplace.<sup>161</sup> It therefore should be updated for purposes of this Transaction to include 90 MHz of MSS/ATC spectrum, all 194 MHz of BRS/EBS spectrum, and 25 MHz of WCS spectrum. Without this additional spectrum, the Screen utilized by the Commission will not accurately reflect the spectrum currently available or soon to be commercially available that can support mobile telephony/broadband service.

#### **1. The Screen Should Include 90 MHz of MSS/ATC Spectrum**

With an increasing number of service providers announcing the use of their MSS/ATC spectrum for mobile broadband, the Commission should add 90 MHz of MSS/ATC spectrum to the Screen. In the *Fourteenth Wireless Competition Report*, the Commission noted that a number of MSS providers had announced plans to use their MSS/ATC spectrum to offer mobile broadband service in connection with their terrestrial networks.<sup>162</sup> While the Commission, in the 2008 *Verizon Wireless/ALLTEL Order*, noted that it did not have enough information regarding

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<sup>159</sup> *Marx Report* at 9, n.15.

<sup>160</sup> *See AT&T/Centennial Order*, 24 FCC Rcd at 13935 ¶ 43.

<sup>161</sup> *See Marx Report* at 10-11.

<sup>162</sup> Description of Transaction, Public Interest Showing, and Related Demonstrations, *Applications of AT&T Mobility Spectrum LLC and QUALCOMM Incorporated for Consent To Assign Lower 700 MHz Band Licenses*, WT Docket No. 11-18, at 25 (filed Jan. 13, 2011) (“*AT&T-Qualcomm Public Interest Statement*”); *Fourteenth Wireless Competition Report*, 25 FCC Rcd at 11444 ¶ 37.

service offerings to conclude that MSS/ATC spectrum should be included in the screen,<sup>163</sup> that is no longer the case.

Using MSS/ATC spectrum licensed to Harbinger Capital, LightSquared plans to launch its nationwide LTE mobile broadband network in the third quarter of 2011.<sup>164</sup> The network is expected to include 40,000 cell sites, cover 100 million Americans by the end of 2012, and reach about 92 percent of the U.S. population upon completion.<sup>165</sup> Indeed, when the Commission approved the Harbinger-SkyTerra transaction, it specifically required SkyTerra to construct a terrestrial network to provide mobile broadband coverage to at least 100 million people in the United States by the end of 2012, 145 million by the end of 2013, and 260 million by the end of 2015<sup>166</sup> and noted that the network would enable it to provide a service that “complements and enhances competition in the provision of terrestrial wireless services provided by terrestrial carriers such as AT&T, Verizon Wireless, Sprint, T-Mobile, Clearwire and others, *particularly in the area of mobile broadband services.*”<sup>167</sup> The FCC’s own conditions thus effectively require that LightSquared be using its spectrum as an active competitor in the provision of mobile broadband services within the two-year timeframe typically used to evaluate whether spectrum should be included in the Screen. Therefore, unless the Commission believes that LightSquared will not comply with the Commission’s conditions, Commission precedent compels the inclusion of this spectrum in the Screen.

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<sup>163</sup> *Verizon Wireless/ALLTEL Order*, 23 FCC Rcd at 17479 ¶ 68.

<sup>164</sup> *AT&T-Qualcomm Public Interest Statement* at 25.

<sup>165</sup> *See id.*

<sup>166</sup> *In the Matter of Sky Terra Communications, Inc., Transferor and Harbinger Capital Funds, Transferee, Applications for Consent to Transfer Control of SkyTerra Subsidiary, LLC*, 25 FCC Rcd 25 FCC Rcd 3059, 3088-89 ¶ 72, 3094-3095 (App. B).

<sup>167</sup> *See id.* at 3086 ¶ 59 (emphasis added).

Moreover, TerreStar, another MSS licensee, launched a satellite in July 2009 and announced that it plans to use its spectrum to offer integrated satellite and terrestrial voice, data and video services.<sup>168</sup> In addition, a subsidiary of DBSD North America launched a satellite in April 2008 and plans to offer mobile video, navigation and emergency assistance services to vehicles or mobile handsets. DBSD also has Commission authority to construct a terrestrial wireless network to be integrated with its satellite network.<sup>169</sup> Finally, there is a pending rulemaking at the Commission exploring the use of MSS spectrum for mobile broadband service.<sup>170</sup>

In sum, MSS/ATC spectrum is substantially more developed today than when the Commission last assessed it as part of the *Verizon Wireless/ALLTEL Order*. It is now clear that MSS/ATC spectrum is able to support mobile broadband; equipment is or will soon be available; carriers are licensed to provide mobile broadband using MSS/ATC spectrum; and the spectrum is not otherwise encumbered in such a way that would prevent its use for mobile broadband. Accordingly, 90 MHz of MSS/ATC spectrum should be added to the Screen.<sup>171</sup>

## **2. The Screen Should Include All 194 MHz of BRS/EBS Spectrum**

In the *Verizon Wireless/ALLTEL Order*, the Commission declined to include all 194 MHz of BRS/EBS spectrum in the Screen because “the availability of BRS spectrum for mobile use was dependent on the process of transitioning to the new band plan.”<sup>172</sup> The Commission, however, did include 55 MHz of BRS spectrum in those local markets where the BRS transition

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<sup>168</sup> *AT&T-Qualcomm Public Interest Statement* at 26.

<sup>169</sup> *Id.*

<sup>170</sup> *Id.*

<sup>171</sup> See *Marx Report* at 12 (“[I]t also seems clear that 90 MHz of MSS spectrum should be included in the screen.”).

<sup>172</sup> *Verizon Wireless/ALLTEL Order*, 23 FCC Rcd at 17478 ¶ 65.

had been completed.<sup>173</sup> It also noted that “all BRS licensees must be operating and be able to demonstrate substantial service by May 1, 2011 or lose their licenses ....”<sup>174</sup>

The BRS/EBS transition has now been completed in virtually all markets and the BRS substantial service deadline has passed.<sup>175</sup> EBS licensees have until November 1, 2011 to file substantial service showings, well within the two-year period the Commission considers for adding spectrum to the Screen. Even more importantly, BRS/EBS spectrum is now in commercial use across the United States, and companies such as Clearwire, Sprint, Time Warner Cable, and Comcast are currently using BRS/EBS spectrum to offer 3G and 4G fixed and mobile broadband services to consumers.<sup>176</sup> Neither is there any question that equipment to offer mobile telephony/broadband service using BRS/EBS spectrum is now commercially available and in use.

The Commission in its *Fourteenth Competition Report*, recognized that the entire 194 MHz of BRS/EBS spectrum could be used for mobile services,<sup>177</sup> and the National Broadband Plan noted that 194 MHz of BRS/EBS spectrum is “now coming online for mobile broadband deployment.”<sup>178</sup> Moreover, while EBS licensees must be qualified educational entities, the Commission’s rules permit EBS licensees to lease a large portion of their spectrum to

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<sup>173</sup> *Id.*

<sup>174</sup> *Id.*

<sup>175</sup> *Amendment of Parts 1, 21, 73, 74 and 101 of the Commission’s Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other advanced Services in the 2150-2162 and 2500-2690 MHz Bands, et al.*, Order on Reconsideration and Fifth Memorandum Opinion and Order and Third Memorandum Opinion and Order and Second Report and Order, 21 FCC Rcd 5606, 5676 ¶ 150 (2006) (BRS transition must be completed 18 months after the planning period ends or on October 19, 2010); 47 C.F.R. § 27.14(b)(1) (BRS licensees are required to demonstrate substantial service at the time of license renewal. BRS license renewal applications were due May 1, 2011.).

<sup>176</sup> *AT&T-Qualcomm Public Interest Statement* at 25-27.

<sup>177</sup> *Fourteenth Wireless Competition Report*, 25 FCC Rcd at 11634 (App. A, ¶ 21).

<sup>178</sup> *AT&T-Qualcomm Public Interest Statement* at 24.

commercial operators.<sup>179</sup> Therefore, since the Commission recognizes that BRS/EBS spectrum may be used for commercial mobile broadband, equipment is available, and BRS/EBS spectrum is currently being used to provide commercial broadband service, the Commission should modify its screen to include all 194 MHz of BRS/EBS spectrum.

### 3. The Screen Should Include 25 MHz of WCS Spectrum

Last year, the Commission made available 25 MHz of WCS spectrum for mobile broadband services.<sup>180</sup> As the Commission stated at the time, “[t]he 2.3 GHz WCS spectrum will help to increase the supply of flexible use spectrum that can be used to address the explosive nationwide growth in consumer demand for mobile broadband services.”<sup>181</sup> While the Commission in the 2009 *AT&T/Centennial Order* declined to include this WCS spectrum in the Screen because the Applicants had failed to show at the time that it was “suitable for mobile telephony/broadband services,”<sup>182</sup> the Commission’s 2010 adoption of service rules for the WCS spectrum is a material change in circumstances and makes clear that the spectrum is, in fact, suitable for mobile telephony/broadband services. Given that the WCS spectrum is currently held by service providers such as Sprint, NextWave, Comcast, Horizon, AT&T and Broadband South and is now available for mobile broadband use, “it seems clear that this spectrum should be included in the calculation of the [S]creen.”<sup>183</sup>

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<sup>179</sup> 47 C.F.R. § 27.12.14(b)(1); *AT&T-Qualcomm Public Interest Statement* at 24.

<sup>180</sup> See *In the Matter of Amendment of Part 27 of the Commission’s Rules to Govern Operation of Wireless Communications Services in the 2.3 GHz Band, Establishment of Rules and Policies for the Digital Audio Radio Satellite Service in the 2310-2360 MHz Frequency Band*, 25 FCC Rcd 11710 (2010).

<sup>181</sup> *Id.* at ¶ 24.

<sup>182</sup> *AT&T/Centennial Order*, 24 FCC Rcd at 13935 ¶ 44.

<sup>183</sup> *Marx Report* at 11.

**E. The Application of an Updated Spectrum Screen Demonstrates that Few Local Markets Warrant Close Commission Scrutiny**

Once the Screen is updated to reflect the realities of the wireless marketplace, there are few, if any, local markets where AT&T's spectrum holdings would exceed the Screen following the Merger. For example, when the MSS/ATC, BRS/EBS, and WCS spectrum discussed above is added to the Screen, Leslie Marx calculates that there are zero CMAs where AT&T's spectrum holdings would exceed the Screen.<sup>184</sup> This figure reflects the diversity of the input market for the provision of mobile telephony/broadband services.

Moreover, even if the Commission decides against including all 194 MHz of BRS/EBS spectrum in the Screen at this time, AT&T's spectrum holdings would still only exceed the Screen in at least one county in 26 or 31 CMAs (out of a possible 716 DMAs), depending on whether one includes AWS and BRS spectrum that is currently unavailable.<sup>185</sup> Even using the larger number of CMAs, 31, fewer than 15% of Americans currently reside in a CMA where AT&T would exceed the Screen.<sup>186</sup> And even in those 31 CMAs, there is strong reason to believe that the existence of current and potential competitors in those local markets would alleviate any potential concerns regarding the Merger. Leslie Marx found that "the average number of spectrum holders for the CMAs identified by the screens . . . is approximately 14,

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<sup>184</sup> *See id.* at 13.

<sup>185</sup> *See id.* at 13. Because AT&T and T-Mobile hold AWS spectrum that is currently unavailable, including unavailable AWS and BRS spectrum in the Screen actually increases the number of CMAs in which AT&T would exceed the Screen post-merger by five. *See id.* at 13.

<sup>186</sup> *Id.* at 15 (fewer than 40 million Americans live in these 31 DMAs and the population of the United States in the 2010 Census was 308,745,538). And even fewer American live in a county where AT&T's spectrum holdings would exceed the Screen after the merger. Because Leslie Marx flagged a CMA as exceeding the Screen if there was a single county in the CMA where AT&T's holdings would exceed the Screen, some CMAs were flagged when only a small percentage of the CMA's inhabitants live in a county where the Screen would be exceeded. For example, in Arkansas-Ouachita (CMA 335), "an examination of spectrum holdings at a county level reveals that the [S]creen would be exceeded in only one of the CMA's ten counties, representing only 7% of population of the CMA." *Id.* at 20.

with a minimum of 12” and concluded that “[t]he large number of potential competitors in each of the CMAs . . . helps to mitigate any concern that comes with [the merged entity’s] holdings exceeding the spectrum screen. Those other spectrum owners represent potential competition to [the merged entity], and a source of discipline on the pricing and other attributes of [the merged entity’s] offerings.<sup>187</sup> Clearwire, for example, is already offering 4G service in 11 of the CMAs singled out by the Screen, and those 11 CMAs represent 74% of the population of those 31 CMAs.<sup>188</sup> Furthermore, Leslie Marx calculated HHIs for all 31 CMAs based on spectrum shares of existing spectrum holders in order to measure the “potential HHI” if all service providers’ output were in proportion to their spectrum holdings.<sup>189</sup> Significantly, she found that none of the 31 CMAs in question “has a post-transaction greater than 2800,” the figure equal to the first of the FCC’s HHI screens.<sup>190</sup>

In evaluating any CMAs flagged by the Screen, the Commission should also look to other metrics to assess the competitiveness of those markets, such as a high customer switching rate or a low dropped call rate resulting from aggressive infrastructure investment. “To the extent that high customer switching rates, particularly for [AT&T], indicate that [AT&T] is constrained by competitive pressure within a particular CMA, then the [T]ransaction creates less of a concern for that CMA.”<sup>191</sup>

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<sup>187</sup> *Id.* at 17. Indeed, even if the analysis is limited only to spectrum that the Commission has previously included in the Screen, Leslie Marx concluded that “all of the U.S. population lives where there will be 5 or more spectrum owners following the transaction,” and “[a]pproximately 69% of the population lives in CMAs where there will be 7 or more spectrum owners.” *Id.* at 19.

<sup>188</sup> *See id.* at 19-20.

<sup>189</sup> *See id.* at 23.

<sup>190</sup> *Id.* at 23.

<sup>191</sup> *Id.* at 21-22.

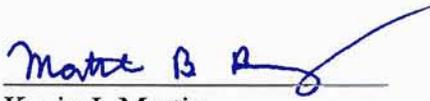
## V. CONCLUSION

The Merger presents the Commission with a unique opportunity to expand high-speed broadband deployment throughout the United States. By approving this Merger, the Commission can ensure that AT&T's 4G LTE network will cover over 97% of Americans within six years. Such a network would substantially advance both the Obama Administration's and the Commission's mobile broadband goals, and the Commission should not let such an opportunity slip through its fingers.

This Transaction will also improve the quality of service received by AT&T and T-Mobile customers, lower prices, create at least tens of thousands of jobs, increase economic growth, and strengthen workers' rights. Following the Merger, the wireless industry will remain dynamic and intensely competitive with both established service providers and upstart "mavericks" aggressively fighting to win new customers with an ever-evolving array of services, devices, operating and pricing plans. Far from providing AT&T with the incentive and ability to restrict output and increase prices, the Merger will enable AT&T, which is currently facing capacity constraints, to expand output through the acquisition of new spectrum and the realization of spectral efficiencies.

In sum, the substantial transaction-specific public interest benefits resulting from this Merger far outweigh any alleged transaction-specific harms. Accordingly, the Commission should conclude that this Merger serves the public interest and promptly approve the pending Applications with the condition that AT&T follow through on its commitment to expand its 4G LTE high-speed broadband network to cover over 97% of Americans within six years.

Respectfully submitted,



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I, Wade E. Shafer, hereby certify that on this 31st day of May, 2011, I caused true and correct copies of the foregoing Comments to be served by first class mail to the following individuals:

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# Exhibit A



# Policy Memorandum

ECONOMIC POLICY INSTITUTE • MAY 31, 2011 • POLICY MEMORANDUM #185

## THE JOBS IMPACT OF TELECOM INVESTMENT

BY ETHAN POLLACK

This memo describes the jobs impact of a prototypical investment in wireless infrastructure.

The jobs estimate includes both direct jobs within the primary industries that meet the additional demand for goods and services and supplier jobs in the secondary industries that provide those primary industries with intermediate goods and services. Additionally, the estimate also includes “induced jobs” created as incomes earned by newly hired workers are spent back into the economy.

Our findings are based on the following process:

First, we used the Employment Requirements Matrix (ERM) from the Bureau of Labor Statistics (BLS) to translate a given amount of investment spending into the number of directly supported jobs in the primary industries that see final demand for their output rise as a result of the new investment. The ERM also allows an estimate of supplier jobs supported in the industries that supply the primary industries. For example, the construction industry (a primary industry) is a purchaser of commodities such as cement, steel, and heavy equipment as well as services such as accounting and legal assistance. These industries will need to expand to supply the construction industry when it expands. See **Table 1** for how we allocated the likely wireless investments across primary industries—this allocation is the input we use for the employment requirements matrix.

Second, we use a macroeconomic multiplier for infrastructure investment of 1.5 to calculate the economic activity that is induced when income earned by newly hired workers and firms is re-spent throughout the economy. From this re-spending estimate we can then estimate the number of jobs associated with the new economic activity. Essentially, as construction workers are hired to help build the wireless infrastructure, they will have more money to spend. If they buy lunch at a neighborhood diner, this will support jobs for wait-staff. If the newly hired waiters and waitresses then buy clothes for their kids, this will support jobs in retail establishments.

A macroeconomic multiplier of 1.5 is consistent with a range of independent estimates of the net macroeconomic effects of government investments in infrastructure—including those supplied by the Congressional Budget Office and Moody’s Economy.com. This multiplier includes an implied “re-spending” multiplier of 0.5, which is consistent with estimates of private-sector re-spending surveyed by Bivens (2006). This multiplier is applied to the amount of upfront spending to calculate the total amount of new economic activity generated by the upfront spending. We then use the historical relationship that prevails between GDP growth and employment growth to infer that each 1% increase in GDP corresponds to 1.2 million new jobs. This relationship between GDP growth and employment growth is also relatively constant across many macroeconomic forecasters (see CBO 2011 for the latest example).

**TABLE 1**

**Job model input for \$1 billion investment in wireless network infrastructure**

Sector code	Sector description	Allocation	Investment (\$millions)
79	Communications equipment manufacturing	50%	\$500
110	Warehousing and storage	5	50
115	Telecommunications	25	250
125	Commercial and industrial machinery and equipment rental and leasing	5	50
129	Architectural, engineering, and related services	7.5	75
166	Electronic and precision equipment repair and maintenance	7.5	75
	<b>Total</b>	<b>100%</b>	<b>\$1,000</b>

SOURCE: Author's analysis.

Third, we add the numbers of direct, supplier, and induced jobs derived from the above calculations to estimate the total number of jobs supported by this spending.

Fourth, we use the information from the macroeconomic multiplier and employment requirements matrix to estimate the number of jobs supported directly by the first-round of spending (i.e., in both direct “receiving” industries as well as in indirect “supplier” industries). We know that two-thirds (i.e., 1/1.5) of the total jobs are created or retained by the first round of spending. The employment requirements matrix then allows us to apportion this two-thirds of total jobs into the appropriate direct versus supplier industry splits.

Fifth, we estimate the jobs that are induced through re-spending of income by using the macroeconomic multiplier that tells us that the remaining one-third of jobs (i.e., 0.5/1.5) are jobs that are induced through re-spending.

Using this methodology, we find that \$1 billion invested in a year would create approximately 12,000 jobs in that year; or, alternatively, that a \$1 billion investment would create 12,000 job-years’ worth of employment. This includes 3,500 direct jobs, 4,500 supplier jobs, and 4,000 induced jobs. Note that the estimates are in “job-years,” which refer to a job held for a single year; for example, five jobs performed for a single year is the equivalent to one job retained for five years. This figure also assumes an economy that is operating below full potential, with elevated levels of unemployment.

**Note on AT&T and T-Mobile**

AT&T recently reached an agreement to purchase T-Mobile from its parent company, Deutsche Telekom. The companies have claimed in a press release that this purchase will result in an \$8 billion net increase in AT&T’s investment in its domestic wireless infrastructure over seven years.<sup>1</sup>

Given the job impact analysis noted above, a plausible range of impact would be between 55,000 and 96,000 job-years. To reiterate, the jobs estimate includes both direct jobs within the primary industries that meet the additional demand for goods and services and supplier jobs in the secondary industries that supply those primary industries with intermediate goods and services. The estimate also includes “induced jobs” created as incomes earned by newly hired workers are spent back into the economy. The figures are again listed as job-years, which refer to a job held for a single year.

Our estimate assumes that the \$8 billion in investment is spread equally over the seven-year horizon. We present a range of estimates to capture the fact that the overall economy will be different over these seven years—for example the CBO forecasts that we will have a declining unemployment rate over the horizon. The macroeconomic multipliers cited

earlier are most applicable during periods in which there is slack in the labor market. For years when the economy has a tighter market, the applicable multiplier will likely be lower, all else equal.

Given this, we estimate a range in which the upper bound incorporates the full effect of the multiplier over the entire seven years and the lower bound assumes zero net job creation in the last three years—when unemployment begins to approach a stable rate under CBO assumptions. Neither of these extremes is particularly likely, but this analysis presents a plausible range of impact.

In particular, net job creation during the last three years of this investment could well be greater than zero, especially given our skepticism that the labor market will automatically reach full employment by 2016 as CBO projects. But it is also likely that the net job creation per billion dollars of investment will fall if labor becomes scarcer. See the full results for each of the different tranches of jobs (direct, supplier, and induced) in **Table 2**.

**TABLE 2**

**Jobs impact from \$8 billion investment over seven years in wireless network infrastructure**

	Direct jobs	Supplier jobs	Induced jobs	Total jobs impact
<i>High-end</i>	27,297	36,676	31,986	95,959
<i>Low-end</i>	15,598	20,958	18,278	54,834

**SOURCE:** Author's analysis.

We should note that this is not a full job-impact estimate of the entire purchase of T-Mobile by AT&T. There are myriad other factors that would impact jobs. This memo only considers the effects of the capital investment in the wireless infrastructure and not the overall economic impacts of broadband more generally.

**Endnotes**

1. See the press release at <http://investmentwatchblog.com/att-to-buy-t-mobile-us-cnbc-bulletin/>

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Bivens, Josh. 2006. *Updated employment multipliers for the U.S. economy*. EPI Technical Paper.

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## **Exhibit B**

**ECONOMIC REPORT  
ON THE PROPOSED  
ACQUISITION OF T-MOBILE USA, INC. BY AT&T INC.**

**BY  
LESLIE M. MARX  
Professor of Economics, Duke University  
and Former Chief Economist, Federal Communications Commission**

**May 31, 2011**

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## A. Executive Summary

- (1) I have been asked by the Communications Workers of America (CWA) to offer my opinions about appropriate methods of analysis for several competition issues that will certainly arise during the review of the proposed acquisition of T-Mobile USA, Inc. by AT&T Inc. (“the merger” or “the transaction”). I am not offering an opinion on the merits of the merger itself.
- (2) I present three main conclusions in the three main sections of this report (Sections C, D, and E).
  1. Relevant geographic markets are likely local.
  2. Federal Communications Commission spectrum screens applied to the merger should be more inclusive than those applied during the evaluation of previous transactions.
  3. Traditional share-based screens may not accurately reflect competitive effects.
- (3) In Section C, I discuss the relevant geographic markets for the evaluation of the merger. I discuss how relevant markets would likely be local, based both on consumer demand and firm cost considerations. In particular, a hypothetical monopolist would likely engage in price discrimination by geographic area in response to differences in consumer demand and the local nature of capacity constraints (which are an aspect of firm costs).
- (4) In Section D, I discuss the role of spectrum screens and the appropriate screen to be applied to the transaction. The screen applied by AT&T Inc. (“ATT”) and T-Mobile USA, Inc. (“TMO”) in their Public Interest Statement was quite conservative. At a minimum, the WCS and MSS spectrum should be added to the screen for this transaction. In addition, the remaining unavailable AWS spectrum should probably be added as well, depending on when that spectrum becomes available and what time horizon the Federal Communications Commission and the U.S. Department of Justice (“the Agencies”) consider relevant. With this updated spectrum screen, there are no more than 31 Cellular Market Areas (CMAs) where the combined company’s spectrum holdings exceed the screen. For many of these, there are factors that reduce concerns of competitive harm. I identify a number of analyses that the Agencies might consider in order to evaluate whether these CMAs (or others) present a concern.
- (5) In Section E, I discuss reasons why traditional share-based concerns may not be as relevant in the evaluation of this transaction. There are factors that lead one to expect that new entry and expansion could (in a relatively short span of time) generate meaningful competition. In addition, the importance of innovative activity in the industry minimizes the market power associated with having a large market share under the current generation of technology.

## B. Introduction

- (6) I have been asked by the Communications Workers of America (CWA) to offer my opinions about appropriate methods of analysis for several competition issues that will certainly arise during the review of the proposed acquisition of T-Mobile USA, Inc. by AT&T Inc. (“the merger” or “the transaction”). My opinions are based on my own training and experience, including my experience serving as Chief Economist of the Federal Communications Commission, as well as on a limited and preliminary review of publicly available data.
- (7) I have not been asked to undertake a complete analysis of the likely procompetitive or anticompetitive effects of the proposed merger. Nor do I have access to the data or information that would be required to conduct such a review. Therefore, I am not offering an opinion on the merits of the merger itself. Rather, the views expressed here should be regarded as suggested guidance for the investigation being conducted by the Federal Communications Commission (FCC) and the U.S. Department of Justice (DOJ) (collectively “the Agencies”) reviewing the merger.
- (8) I have specifically been asked to address the following questions:
  - a. Are relevant markets for mobile telephony/broadband service in the United States likely to be local or national?
  - b. How should spectrum ownership screens be applied to evaluate markets for mobile telephony/broadband service?
  - c. Do traditional share-based screens accurately reflect competitive effects in the markets for mobile telephony/broadband service?

## C. Relevant geographic markets are likely local

- (9) The *Horizontal Merger Guidelines* issued jointly by the U.S. Department of Justice and the Federal Trade Commission identify two purposes for identifying relevant markets. Market definition “helps specify the line of commerce and section of the country in which the competitive concern arises” and “allows the Agencies to identify market participants and measure market shares and market concentration.”<sup>1</sup> The Federal Communications Commission has typically used market definition for similar purposes, e.g., for purposes of applying spectrum ownership screens as discussed below.

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<sup>1</sup> U.S. Department of Justice and the Federal Trade Commission, *Horizontal Merger Guidelines*, issued August 19, 2010 (hereafter “*Merger Guidelines*”), at Section 4. <http://www.justice.gov/atr/public/guidelines/hmg-2010.html>.

## C.1. Standards for defining relevant markets

- (10) Roughly speaking, a relevant market should be broad enough so that an attempted exercise of market power within the market has some chance of success, but not so broad so as to obscure important local aspects of competition and possible harm. This concept is captured well in the hypothetical monopolist paradigm for defining markets described in the *Merger Guidelines* and is the approach that I adopt for purposes of this report. That is, I have considered whether a hypothetical monopolist of mobile telephony/broadband services in a candidate market would likely impose at least a small but significant and nontransitory increase in price (“a SSNIP”).<sup>2</sup> The *Merger Guidelines* make it clear that one should also consider whether a hypothetical monopolist would likely choose a reduced service quality instead of, or in addition to, a price increase, or, equivalently, whether the monopolist would likely impose a SSNIP in quality-adjusted prices.<sup>3</sup>
- (11) In thinking about geographic market definition for mobile telephony/broadband services, I have considered whether a hypothetical monopolist could discriminate on the basis of customer location. As the *Merger Guidelines* note, when such discrimination is possible, a region forms a relevant market if a hypothetical monopolist “would impose at least a SSNIP on some customers in the region.”<sup>4</sup> As previously noted, it is appropriate to also consider the possibility of a local service quality reduction or a local SSNIP in quality-adjusted prices when implementing this test. In considering whether price discrimination would be feasible, I consider the two necessary elements identified in the *Merger Guidelines*: (1) whether the hypothetical monopolist could price differently to different customers; and (2) whether an attempt to price discriminate would be defeated by arbitrage.<sup>5</sup>

## C.2. Geographic markets for mobile telephone service should be based on customer location

- (12) My understanding of mobile telephony/broadband services markets leads me to believe that relevant markets for analysis of the merger are likely local and not national, under the approach described in the *Merger Guidelines*. Specifically, I believe that a hypothetical monopolist could discriminate on the basis of customer location, at least between metropolitan areas (if not on a finer geographic scale), with respect to price and quality. In the remainder of this section, I identify a number of factors that lead me to this conclusion.

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<sup>2</sup> *Merger Guidelines* at Section 4.1.1.

<sup>3</sup> “Market definition focuses solely on demand substitution factors, i.e., on customers’ ability and willingness to substitute away from one product to another in response to a price increase or a corresponding non-price change such as a reduction in product quality or service.” (Emphasis added.) *Merger Guidelines* at Section 4.

<sup>4</sup> *Merger Guidelines* at Section 4.2.2.

<sup>5</sup> *Merger Guidelines* at Sections 3 and 4.2.2.

- (13) The factors that I identify here suggest that analysis of competitive effects also demands consideration of economic forces that operate at a local level. Similarly, to the extent that the Agencies identify competitive problems, it may be appropriate to tailor local remedies given the factors that I discuss here.
- (14) My conclusion that mobile telephony/broadband services markets are likely local and not national might at first glance seem to be at odds with certain features of the merging parties' service offerings, including their broad geographic coverage and their offering of service plans that provide national coverage at a uniform price. However, these features are not directly relevant for the central question of geographic market definition based on customer location—namely whether a localized price increase or service quality reduction would be feasible and profitable to a local monopoly seller. This is the proper question, even when these services include national coverage.
- (15) The situation here has certain parallels to the proposed merger of the DISH and DirecTV satellite television systems that was reviewed by the Agencies in 2002. The merging parties provided national satellite television service (an “MVPD” service). Nevertheless, the Department of Justice found “numerous local geographic markets for MVPD service, each consisting of a community whose members face the same competitive choices,” and the Federal Communications Commission concluded that “the relevant geographic market for MVPD service is local.”<sup>6</sup> While the parallels are not exact (mobile telephony/broadband service, unlike MVPD service, may be used away from one’s residence, however, the majority of use still occurs in region), the same considerations that led the Agencies to infer local markets in that merger of national providers also apply in the present case.
- (16) My opinion about geographic markets rests on several observations, which I will discuss in turn. First, it is possible to price mobile telephony/broadband services differentially between broadly defined local regions such as metropolitan areas. Second, differential pricing is unlikely to be defeated by arbitrage. Third, differential pricing likely is profitable. In each case, I consider quality competition and discrimination as well as price competition and discrimination.

### C.3. Geographic discrimination is feasible and occurs in practice

- (17) Providers of mobile telephony/broadband services can and do discriminate on price and service quality between customers in different geographic areas. Even if many customers have a preference for service that provides national coverage, that service is still priced differentially at the local level. Price discrimination likely occurs primarily through the use of direct mail promotions targeted at local areas and promotions specific to local distribution outlets or billing

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<sup>6</sup> Compl. at ¶31, *United States v. EchoStar Commc's. Corp.*, No. 1:02CV02138 (Dist. Ct. D.C. Oct. 31, 2002), available at <http://www.justice.gov/atr/cases/f200400/200409.htm>; H'rg. Designation Order at ¶125, *Matter of App. of EchoStar Commc's. Corp.*, F.C.C. 02-284 (Oct. 18, 2002), available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-02-284A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-02-284A1.pdf).

zip codes.<sup>7</sup> “Local online offers” associated with a specific zip code are also used.<sup>8</sup> Local promotions based on customer zip code are feasible and common.

- (18) Providers also discriminate on the basis of quality or equivalently on the basis of quality-adjusted prices. The quality of mobile telephony/broadband service offered by a firm in a given local area depends upon a set of interrelated factors.<sup>9</sup> The level of service quality depends on a firm’s deployed level of network infrastructure, the amount of spectrum the firm owns, and the effectiveness with which the firm utilizes this spectrum, which is affected by the generation of technology used by the firm and the level of network traffic. The determinants of quality interact on a local level. For example, high volumes of traffic in one local area can affect the quality of service experienced by all customers in that local area without necessarily affecting service to customers in other geographic areas. Because of these local effects, there is a sense in which the providers of mobile telephony/broadband services are offering services that differ in quality across geographic areas.
- (19) For example, Verizon Wireless reports its network reliability studies on a regional basis, including results for 5 regions in the Midwest Area, 5 regions in the Northeast Area, 6 regions in the South Area, and 5 regions in the West Area.<sup>10</sup>
- (20) AT&T recently released local dropped-call rates for Houston, as part of its defense against complaints about its service in that area, as reported in the local press reports, which also noted plans to upgrade service in response to competitive pressures:

AT&T says the Houston dropped-call rate is less than any other carrier's national rate. AT&T also said it spent \$825 million from 2008 to 2010 on its wired and wireless communications services in the Houston area, and plans extensive

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<sup>7</sup> See the Declaration of David Christopher at ¶13.

<sup>8</sup> The phrase “local online offers” is used on the website of ATT Wireless. (<http://www.wireless.att.com/cell-phone-service/welcome/index.jsp>, accessed 5/20/2011) Verizon Wireless requires a zip code in order to receive “exclusive online offers, promotions and the latest information on products and services from Verizon Wireless.” (<http://www.verizonwireless.com/b2c/LNPCControllerServlet>, accessed 5/20/2011)

<sup>9</sup> Miguel Angel Campo-Rembado and Arun Sundararajan (2004), “Competition in Wireless Telecommunications,” working paper, New York University, pp.1–2: “First, wireless service quality depends on a set of inter-related technological choices, rather than being a simple, directly chosen strategic variable. Firms can influence quality by varying their deployed level of network infrastructure; this is a ‘short-run’ variable to some extent, and firms are continually investing in additions and upgrades to their networks. Additionally, at a fixed level of network infrastructure, quality is influenced by a pair of related technological choices – the amount of spectrum the firm owns, and the effectiveness of utilization of this spectrum by the type (generation) of technology used by the firm. These tend to be ‘long-run’ choices: a shift to a new generation of transmission technology is a multi-billion dollar undertaking, requiring an overhaul of the firm’s network infrastructure and simultaneous upgrades in consumer hardware; firms are also often restricted by regulatory constraints on spectrum availability and trading. A second distinguishing feature of the wireless industry is the presence of [a] specific kind of negative usage externality. An increase in network traffic increases the fraction of traffic to an [sic] transmission tower that cannot be carried (and is therefore ‘lost’), and service quality, measured as a function of this loss rate, is therefore endogenously affected by the equilibrium market shares of competing providers.”

<sup>10</sup> <http://aboutus.vzw.com/bestnetwork/reliability.html>, accessed May 22, 2011.

upgrades in 2011. Typically, carriers do not release local dropped-call and spending numbers, but AT&T faces competitive pressure with the start of general sales on Thursday of the Verizon version of Apple's iPhone. AT&T had exclusivity on the device until this year.<sup>11</sup>

- (21) Consumers consider local service quality when choosing among competing providers. As described in the FCC's Fourteenth CMRS Competition Report, consumers tend to purchase their plans from providers that serve their local areas.<sup>12</sup> ATT concurs with this view.<sup>13</sup> It is natural to think that consumers would have little value for a service plan that did not offer adequate coverage and quality in the key places from which a consumer would likely access the service, including at home, at work, and while commuting.
- (22) Because local improvements in service quality primarily affect customers who live and work nearby, investments in local service quality and coverage are a form of quality competition for customers that operates at a local level. A provider is more likely to invest in quality improvements for a given metropolitan area or other local area when it faces competition for local customers living and residing in that area. For example, a provider is more likely to invest in new cell towers or other infrastructure improvements that reduce dropped calls in an area to the extent that these investments are likely to attract new service subscribers in the area. Such improvements likely generate much smaller expected benefits to subscribers living far away from the location, who can take advantage of the quality improvement only if they happen to travel to the area.

#### **C.4. Geographic discrimination would not be defeated by arbitrage**

- (23) Customers are unable to effectively arbitrage geographic differences in price or quality. In the case of service quality, this is a natural consequence of the local nature of quality, which is tied to the location where customers use their service. There is no way for a customer using services in one city or town to "import" quality improvements to a network made elsewhere.
- (24) Customers conceivably could arbitrage geographic pricing differences, but in practice this is unlikely. When purchasing new service, a customer typically must provide a billing address and zip code. Providers can discriminate based on this information. A customer would need to provide a billing address in another location to take advantage of pricing specific to that location. Even then, the customer might need to travel to the other location to conduct the transaction, and this

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<sup>11</sup> "AT&T says dropped calls especially rare locally," *Houston Chronicle*, February 8, 2011, <http://www.chron.com/disp/story.mpl/business/7419074.html>.

<sup>12</sup> FCC, "Annual Report and Analysis of Competitive Market Conditions with Respect to Mobile Wireless, including Commercial Mobile Services: Fourteenth Report" May 20, 2010, FCC 10-81 (hereafter, Fourteenth CMRS Competition Report), at ¶24.

<sup>13</sup> See the Declaration of David Christopher at ¶63.

alone may be costly. Providers may be able to verify that billing addresses are correct through credit bureau reports or other sources of data.

- (25) Furthermore, service plans usually establish an ongoing relationship between the customer and the provider for purposes of billing, handset replacement, upgrades, and renewals. The need to transfer this relationship likely discourages attempts to transfer service from one customer to another, especially between customers with no other relationship who reside in different geographic areas. The formal transfer of a service plan would require the cooperation of the provider. Informal transfers that are not disclosed to the provider would generally require identification of a willing counterparty outside of the geographic area and might involve risk and loss of full benefits relative to contracting with the provider directly. For example, resolving billing disputes might be more complicated when the bill is in someone else's name. Similarly, the counterparty might incur some risk or inconvenience associated with informally selling a plan attached to his or her own name and address to a distant third party. These costs and risks likely are too substantial to overcome the benefits associated with anything less than substantial pricing differences.

### **C.5. Differential pricing between metropolitan areas likely is profitable**

- (26) It is natural that providers would have an incentive to engage in price discrimination based on local markets. On the demand side, price discrimination by local geographic area would allow providers to take into account the different demand characteristics of consumers in different geographic areas, including those driven by differences in the substitutability of rival offerings in the local geographic area and any quality differences.<sup>14</sup> On the cost side, there are cost-based incentives for local price and quality discrimination associated with the local nature of capacity constraints. In a geographic area where a provider is close to its capacity for providing a target level of quality, adding customers in that geographic area comes at a higher cost, relative to adding customers in areas where capacity constraints are less binding, because the customers are likely to increase the burden on the infrastructure primarily in their local area. Adding customers in an area where a provider is close to its capacity constraint comes at the additional cost of potentially degrading service to existing customers in the local area. Therefore, providers have less incentive to price aggressively through promotions if it is more costly for them to expand their business in a local area.

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<sup>14</sup> Providers' offerings are in some ways differentiated, and some providers operate only on the local or regional level, and so the availability of close substitutes for customers within a geographic area can differ by area.

## **D. FCC spectrum screens to be applied to the merger should be broadly inclusive**

- (27) The FCC has relied on a combination of spectrum screens (described below) and HHI-based screens using subscriber shares (see Section D.5) in identifying markets of potential concern. Although the Agencies may want to consider whether other share measures better reflect competitive effects for this transaction, I follow the FCC in focusing on capacity and subscriber shares, where spectrum holdings are taken as the proxy for capacity.
- (28) Wireless communication is delivered over the airwaves on distinct electromagnetic frequencies, which the FCC has partitioned into spectrum bands for the purposes of licensing them for use by wireless communications providers. Spectrum is a necessary input for wireless communications. For the kinds of mobile telephony/broadband services relevant for this transaction, licenses for the spectrum used are typically owned or leased by the service provider. A spectrum license allows access to a particular band of spectrum, which is defined by its size in MHz and its location in the electromagnetic spectrum, over a particular geographic area.
- (29) Spectrum is an important contributor to the available capacity for a mobile telephony/broadband service provider. The amount of spectrum, measured in MHz, that is held by a provider can be viewed as a proxy for the capacity of that provider.
- (30) Historically, the FCC has taken the approach of viewing spectrum holdings as a proxy for capacity, using “spectrum screens” as one component of their analysis of the competitiveness of markets for mobile telephony/broadband services. A spectrum screen for mobile telephony/broadband services is a benchmark amount of spectrum, denominated in MHz, that is typically taken to be approximately one-third of the spectrum relevant for the provision of mobile telephony/broadband services. Markets where a provider holds less than this benchmark amount of spectrum would be viewed as less likely to be subject to adverse effects based on the market power of that provider. Markets where a provider holds more than this benchmark amount of spectrum would be viewed as potentially warranting closer scrutiny.
- (31) Over time, the FCC has consistently viewed approximately one-third of the relevant spectrum as the level for the screen. In using (and continuing to use) the one-third threshold, the FCC is presumably balancing the potentially concerning aspects of market concentration with the reality that markets with large fixed costs, such as those for mobile telephony/broadband services, tend to have a large minimum efficient scale, i.e., sufficiently large providers can provide service more efficiently than smaller ones. Although the spectrum share is clearly not the whole story when evaluating competitive effects, in the calculations I offer below, I follow the FCC in using the one-third threshold. In addition, I follow the FCC in treating spectrum as homogeneous for the purposes of the screen.

- (32) The spectrum used as the baseline for the calculation of the spectrum screen for mobile telephone/broadband services should include all spectrum relevant for the provision of those services. Which spectrum is relevant? Certainly all spectrum currently used to provide those services should be included. In addition, for the purposes of evaluating the competitive effects of a merger, one would typically consider not just current competitors but also potential future competitors who might enter within some reasonable time frame, typically within a small number of years.<sup>15</sup> Thus, the screen should include spectrum that could be used by these potential future competitors. In order to be used to provide a competitive service, the spectrum must, at a minimum, be designated for that use and placed in the hands of the firms who would provide the service. In addition, in some cases spectrum is allocated, e.g., through an auction, to a service provider even though another entity is still using that spectrum. In these cases, there may be a delay before the spectrum is “available” while the incumbent clears out of the spectrum, perhaps by relocating its operations to an alternative spectrum band.
- (33) This suggests that spectrum should definitely be included in the calculation of the screen if (1) it has already been designated for the appropriate use, (2) it is already in the hands of mobile telephony/broadband providers or it is reasonable to expect that it will be in their hands in a reasonable time frame, and (3) it is available for use by the provider. For example, one would want to include unencumbered spectrum already designated for the relevant use and scheduled to be auctioned by the FCC within a reasonable time frame. Spectrum not satisfying these conditions may or may not be appropriate to include. It is probably not appropriate to include spectrum that has not yet been designated for the appropriate use, unless it is likely to be so designated and placed in the hands of providers in a reasonable time frame. For the case of spectrum involving more complex availability issues, a case-by-case analysis may be more appropriate.
- (34) Prior to *AT&T-Dobson*,<sup>16</sup> the FCC used a spectrum screen of 70MHz, which was roughly one-third of the spectrum allocated for the relevant wireless services at the time, including Cellular,<sup>17</sup> SMR,<sup>18</sup> and PCS<sup>19</sup> spectrum. Starting with *AT&T-Dobson*, the FCC used a spectrum screen of 95 MHz based on the above spectrum plus the “700MHz” spectrum, which was auctioned in 2008.<sup>20</sup>

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<sup>15</sup> The FCC has in the past used two years as the relevant time horizon (FCC, *Verizon-ALLTEL Order* at ¶62). The use of this time horizon was supported by the 1997 version of the *Horizontal Merger Guidelines*, which said: “The Agency generally will consider timely only those committed entry alternatives that can be achieved within two years from initial planning to significant market impact.” (U.S. Department of Justice and Federal Trade Commission, *Horizontal Merger Guidelines*, Revised: April 8, 1997, at Section 3.2, <http://www.justice.gov/atr/public/guidelines/hmg.htm#32>) However, the two-year horizon is no longer supported by the *Merger Guidelines* following the 2010 revision, which mentions only entry that is “rapid enough” (*Merger Guidelines* at Section 9.1). Given the substantial investment required to launch a new mobile telephony/broadband service, a somewhat longer time horizon might be more appropriate in this case.

<sup>16</sup> FCC, *AT&T-Dobson Order* at ¶17, [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-07-196A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-07-196A1.pdf).

<sup>17</sup> 50MHz: [http://wireless.fcc.gov/services/index.htm?job=service\\_bandplan&id=cellular](http://wireless.fcc.gov/services/index.htm?job=service_bandplan&id=cellular).

<sup>18</sup> 26MHz, reconfigured from June 2005 to June 2008. For spectrum amounts see [http://wireless.fcc.gov/services/index.htm?job=service\\_bandplan&id=smrs](http://wireless.fcc.gov/services/index.htm?job=service_bandplan&id=smrs) and for reconfiguration timetable see <http://transition.fcc.gov/pshs/public-safety-spectrum/800-MHz/reconfiguration-overview.html>.

<sup>19</sup> 130MHz: <http://wireless.fcc.gov/auctions/data/bandplans/pcsband.pdf>.

<sup>20</sup> 70MHz for lower A-E and upper C blocks: <http://wireless.fcc.gov/auctions/data/bandplans/700lower.pdf> and

At the time of *AT&T-Dobson*, AWS<sup>21</sup> and BRS<sup>22</sup> spectrum was becoming available for the provision of mobile telephony/broadband services, but because it was not uniformly available, the FCC considered it premature to include that spectrum in the screen.<sup>23</sup> The FCC did consider the AWS and BRS spectrum in case-by-case analyses.<sup>24</sup> At the time of *Verizon-ALLTEL*,<sup>25</sup> the screen was increased to 145MHz with the addition of AWS and BRS spectrum. (The screen was increased by 20 based on BRS and 30 based on AWS, but adjusted for markets where one or both of the spectrum blocks was not yet available.)<sup>26</sup> The most recent relocation report for the AWS spectrum states that all relocations are expected to be complete by April 2013.<sup>27</sup> It is my understanding that the process of making BRS and also EBS spectrum available is driven by the interested parties (“proponents”) and thus operates on a less-defined timeline.<sup>28</sup>

- (35) It is clear from FCC decisions in which a spectrum screen was applied that, as the wireless industry evolves, it is necessary to reevaluate which spectrum should be included in the screen. In particular, relative to prior screens used by the FCC, additional spectrum that has been or will be auctioned or that has been or will be repurposed to allow the provision of services that compete with those offered by the combined ATT and TMO (ATT-TMO) should be included in the screen for the purposes of evaluating the transaction. The history of the FCC’s use of spectrum screens shows that the FCC recognizes that the appropriate spectrum screen must be adjusted upwards as more spectrum becomes available or is expected to become available for mobile telephony/broadband services. In particular, there are additional blocks of spectrum that, at this time, should be included in the screen.

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<http://wireless.fcc.gov/auctions/data/bandplans/700band.pdf>.

<sup>21</sup> 90 MHz: <http://wireless.fcc.gov/services/aws/data/awsbandplan.pdf>.

<sup>22</sup> 60.5MHz transitioned to 61.5 after 2008. There are a total of 194MHz of BRS/EBS spectrum (<http://wireless.fcc.gov/services/brsebs/data/BRS-EBS-BandPlans.pdf>, [http://wireless.fcc.gov/services/index.htm?job=licensing\\_2&id=ebs\\_brs](http://wireless.fcc.gov/services/index.htm?job=licensing_2&id=ebs_brs)). The transition timeline is available at <http://wireless.fcc.gov/services/brsebs/licensing/transition-timeline.pdf>. In some cases, only 55.5MHz of BRS spectrum were considered relevant for the spectrum screen (see p.77 of “Acquisition of T-Mobile USA, Inc. by AT&T Inc.,” Description of Transaction, Public Interest Showing and Related Demonstrations, Filed with the Federal Communications Commission, Apr. 21, 2011; see also *Verizon-ALLTEL Order* ([http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-08-258A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-08-258A1.pdf)) at ¶63; see also the *Sprint-Clearwire Order* ([http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-08-259A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-08-259A1.pdf)) at ¶70 saying “We conclude that 55.5 megahertz of BRS spectrum (i.e., all BRS spectrum except the MBS channels, BRS Channel 1, and the J and K guard bands) should be considered both suitable and available, in the markets where the transition has been completed, for purposes of our revised spectrum screen. As noted above, historically, the availability of BRS spectrum for mobile uses is dependent on the process of transitioning to the new band plan. For purposes of this transaction, we will apply that test and consider 55.5 megahertz of BRS as available for mobile telephony/broadband services where the transition has been completed.”

<sup>23</sup> FCC, *AT&T-Dobson Order* at ¶17.

<sup>24</sup> FCC, *AT&T-Dobson Order* at ¶17.

<sup>25</sup> FCC, *Verizon-ALLTEL Order* at ¶78.

<sup>26</sup> FCC, *Verizon-ALLTEL Order* at ¶64.

<sup>27</sup> National Telecommunications and Information Administration, Fourth Annual Progress Report, on Relocation of Federal Radio Systems from the 1710-1755 MHz Spectrum Band, March 2011, p.3, [http://www.ntia.doc.gov/reports/2011/1710-1755MHZ\\_CSEAreport\\_03302011.pdf](http://www.ntia.doc.gov/reports/2011/1710-1755MHZ_CSEAreport_03302011.pdf).

<sup>28</sup> See the FCC’s website on the Transition Plan for BRS & EBS Radio Services, [http://wireless.fcc.gov/services/index.htm?job=licensing\\_2&id=ebs\\_brs](http://wireless.fcc.gov/services/index.htm?job=licensing_2&id=ebs_brs).

## D.1. Updated spectrum screens

- (36) Two spectrum bands not previously included in the spectrum screen, WCS and MSS, are now relevant for evaluating markets for mobile telephony/broadband services.
- (37) A 2010 FCC order allocates 25MHz of the WCS spectrum for mobile broadband services.<sup>29</sup> This spectrum is available and held by firms such as ATT, Sprint, NextWave, Comcast, Horizon, Broadband South, and others.<sup>30</sup> Thus, it seems clear that this spectrum should be included in the calculation of the screen.
- (38) As described in the National Broadband Plan,<sup>31</sup> “The FCC first allocated spectrum for MSS in 1986. Since then, the Commission has allocated spectrum in four bands to MSS: the Little LEO Band, the L-Band, the S-Band, and the Big LEO band.”<sup>32</sup> The last three of these MSS bands are capable of supporting broadband service; however, MSS operators were initially limited in their ability to deliver service based on ground-based towers rather than satellites.<sup>33</sup> In 2003, the FCC adopted rules that allowed MSS operators to deploy ground-based networks, referred to as Ancillary Terrestrial Components (ATCs), but the ATCs were restricted to “enhance coverage in areas where the satellite signal is attenuated or unavailable.”<sup>34</sup> Since then, certain MSS spectrum holders have been granted the flexibility to provide stand-alone terrestrial services,<sup>35</sup> but the National Broadband Plan recommends that this be done more systematically. Specifically, Recommendation 5.8.4 of the National Broadband Plan is that “The FCC should accelerate terrestrial deployment in 90 megahertz of Mobile Satellite Spectrum (MSS).”<sup>36</sup> A recent FCC Report and Order has already taken key steps to implement this recommendation.<sup>37</sup>

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<sup>29</sup> FCC Rep. and Order and Sec. Rep. and Order in the Matter of Amen. of Pt. 27 of the Commission’s Rules and Establishment of Rules and Policies, May 20, 2010, FCC 10–82 at ¶1 ([http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-10-82A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-10-82A1.pdf)). In total, there are 30MHz of WCS spectrum ([http://wireless.fcc.gov/auctions/default.htm?job=auction\\_factsheet&id=14](http://wireless.fcc.gov/auctions/default.htm?job=auction_factsheet&id=14)).

<sup>30</sup> ATT and TMO’s Public Interest Statement, App. B.

<sup>31</sup> Connecting America: The National Broadband Plan, 2010 (National Broadband Plan).

<sup>32</sup> National Broadband Plan, p.87.

<sup>33</sup> National Broadband Plan, p.87.

<sup>34</sup> National Broadband Plan, p.87.

<sup>35</sup> National Broadband Plan, p.88.

<sup>36</sup> National Broadband Plan, p.87. As described in the National Broadband Plan, the 90MHz figure consists of 40MHz of the S-band, 40MHz of the L-band, and 10MHz of the Big LEO band.

<sup>37</sup> FCC Report and Order in the Matter of Fixed & Mobile Servs. in the Mobile Satellite Serv. Bands, Apr. 6, 2011, FCC 11–57, at ¶1, [http://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2011/db0415/FCC-11-57A1.pdf](http://transition.fcc.gov/Daily_Releases/Daily_Business/2011/db0415/FCC-11-57A1.pdf). In the L-Band, LightSquared is licensed for MSS operation in portions of the 66MHz 1.5/1.6 GHz L-Band (Order and Authorization in the Matter of LightSquared Subsidiary LLC, Jan. 26, 2011, DA 11-133, fn 2, [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DA-11-133A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-11-133A1.pdf)). LightSquared claims it will have the use of up to 59MHz to operate its nationwide integrated 4G-LTE and satellite network once Phase 2 of its agreement with Inmarsat is executed (LightSquared Press Release, “LightSquared Delivers Notice to Inmarsat Triggering Phase 2 of Re-Banding of L-Band Spectrum in North America, Jan. 28, 2011, <http://www.lightsquared.com/press-room/press-releases/lightsquared-delivers-notice-to-inmarsat-triggering-phase-2-of-re-banding-of-l-band-spectrum-in-north-america/>). In the Big LEO band, Globalstar has the use of 19.275MHz for ATCs (FCC Order of Modification in the Matter of Globalstar Licensee LLC, October 10, 2008, FCC 08-238

- (39) Given the steps already taken by the FCC and the urgency indicated by the National Broadband Plan, 90MHz of MSS spectrum is either already or soon will be deployed for the provision of mobile broadband services. In addition, the spectrum is already in the hands of service providers, including LightSquared, Inmarsat, Globalstar, Iridium, DBSD (ICO), and TerreStar, and is being used to offer service.<sup>38</sup> Given these conditions, it also seems clear that 90MHz of MSS spectrum should be included in the screen.
- (40) Including 25MHz of WCS spectrum and 90MHz of MSS spectrum brings the one-third spectrum screen up to 183MHz, with adjustments for markets where it is reasonable to expect that the AWS and/or BRS spectrum will continue to be unavailable over the appropriate time frame. In my opinion, a spectrum screen of 183MHz (adjusted for the unavailability of certain AWS and BRS spectrum in certain markets) is the minimal spectrum screen appropriate for the review of this transaction.
- (41) ATT and TMO argue in their Public Interest Statement that the FCC “should include *all* 194 MHz of BRS/EBS spectrum (not just the 55.5 MHz it has considered before) because the BRS/EBS transition is complete in most areas of the country, and because Clearwire and its partners (including Sprint and Time Warner Cable) are making widespread use of WiMAX service throughout the country, now passing more than 100 million people.”<sup>39</sup> I agree that all this spectrum should be included if the FCC expects that it will be deployed within the appropriate time frame for mobile telephony/broadband services. If the full 194MHz of BRS/EBS spectrum is included, then the one-third spectrum screen increases to 228MHz, again with adjustments for markets where it is reasonable to expect that the AWS spectrum will continue to be unavailable.

## D.2. Application of updated spectrum screens

- (42) Appendix C of ATT and TMO’s Public Interest Statement identifies the Cellular Market Areas (CMAs) in which the “current spectrum screen” (as specified in ATT and TMO’s Appendix A) would be exceeded by the combined ATT-TMO.<sup>40</sup> As discussed above, I believe the “current spectrum screen” used by ATT and TMO is not appropriate for this transaction because it is too low. As shown below, I use data provided in the appendices of ATT and TMO’s Public Interest Statement to calculate the CMAs exceeding the updated screen of 183MHz (both adjusted for

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([http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-08-238A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-08-238A1.pdf)). And in the S-Band, DBSD (ICO) and TerreStar have a combined 40MHz (DBSD: [http://www.ico.com/\\_about/corpstruct/](http://www.ico.com/_about/corpstruct/); and TerreStar: FCC Order and Authorization in the Matter of TerreStar Networks Inc., Jan. 13, 2010, DA 10-60 ([http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DA-10-60A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-10-60A1.pdf)).

<sup>38</sup> National Broadband Plan, p.88, especially Exhibit 5-G showing “Broadband Capable MSS Bands” with licensees and subscribers.

<sup>39</sup> ATT and TMO’s Public Interest Statement, p.77.

<sup>40</sup> For a map showing the CMAs, see <http://wireless.fcc.gov/auctions/data/maps/CMA.pdf>.

unavailable AWS and BRS as in Appendix A of the Public Interest Statement, and assuming that spectrum is or will be available within the appropriate time frame).

- (43) In case the expectation is that all 194MHz of BRS/EBS spectrum will be deployed for mobile telephony/broadband services within the time frame, I have also calculated the CMAs exceeding the screen for that case.
- (44) The table below is based on Cellular, SMR, PCS, 700MHz, MSS, and WCS spectrum, as well as AWS and BRS/EBS spectrum (as indicated). I focus on the 50 U.S. states plus the District of Columbia. Consistent with ATT and TMO’s Public Interest Statement, I identify CMAs where ATT and TMO would have combined holdings above the spectrum screen in at least one county within the CMA. See Section D.4.1 for further discussion of this criterion.

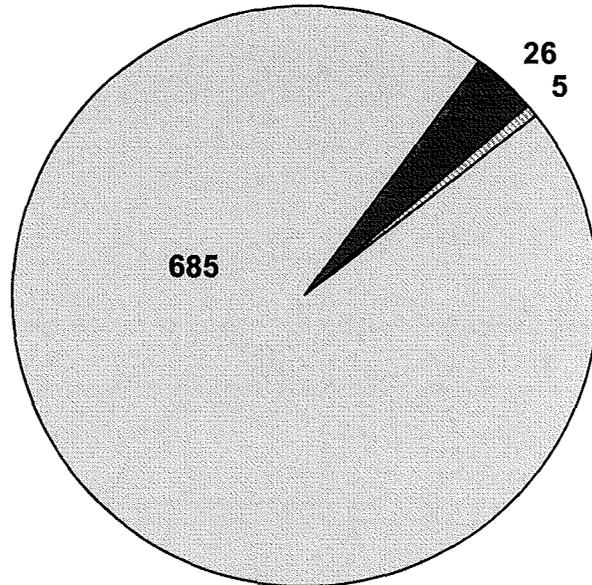
**Table 1: Number of CMAs where ATT-TMO’s spectrum holdings would be above the spectrum screen**

		Adjusted for current AWS/BRS availability*	All spectrum, regardless of current AWS/BRS availability
BRS/EBS Spectrum Included	<i>Attributable</i> BRS Only	26	31 (prior 26 +5)
	All BRS/EBS	0	0

\* Includes BRS and AWS spectrum holdings only for those countries listed as “BRS Available” and “AWS Available,” respectively, as reported in ATT and TMO’s Public Interest Statement, Appendix A.

- (45) Table 1 shows that zero, 26, or 31 CMAs are identified by the screen, depending upon whether or not one includes currently unavailable AWS spectrum, and depending on which BRS/EBS spectrum is included. Because ATT and TMO hold AWS spectrum that is currently unavailable, 5 additional CMAs are identified by the screen that includes the currently unavailable spectrum. In all cases, ATT and TMO are individually below the screen.
- (46) As illustrated in Figure 1, the CMAs identified by the screen represent a small fraction of the total number of CMAs in the United States.

**Figure 1: U.S. CMAs where ATT-TMO's spectrum holdings would be above and below the updated spectrum screen**



- CMAs above the screen based on available spectrum
- ▒ Additional CMAs above the screen based on all spectrum
- CMAs below the screen

(47) Table 2 shows additional details about the 31 CMAs identified in Table 1.

**Table 2: CMAs where the spectrum screen including WCS and MSS spectrum is reached**

CMA #	Name	No. Competitors	Population	AWS available in all counties within the CMA	BRS available in all counties within the CMA	Unallocated spectrum (%)	
<b>Screen based on Cellular, SMR, PCS, 700MHz, MSS, WCS, and either available or all AWS and attributable BRS spectrum</b>							
1	7	San Francisco-Oakland, CA	13	4,353,975	yes	yes	0.8%
2	10	Houston, TX	13	5,610,431	no	yes	0.1%
3	12	Miami-Ft. Lauderdale, FL	14	4,322,338	yes	yes	2.6%
4	17	Atlanta, GA	14	4,895,431	yes	yes	0.1%
5	19	Denver-Boulder, CO	15	2,797,524	yes	yes	0.4%
6	27	San Jose, CA	13	1,807,547	yes	yes	0.1%
7	35	Sacramento, CA	13	1,966,433	yes	yes	0.3%
8	39	Salt Lake City-Ogden, UT	14	1,651,567	yes	yes	0.4%
9	51	Jacksonville, FL	13	1,338,606	yes	yes	0.2%
10	60	Orlando, FL	13	1,791,071	yes	yes	0.3%
11	72	West Palm Beach-Boca Raton, FL	13	1,290,971	yes	yes	3.5%
12	111	Vallejo-Fairfield-Napa, CA	12	545,409	yes	no	0.1%
13	117	Colorado Springs, CO	15	639,964	yes	yes	0.4%
14	137	Melbourne-Titusville-Palm Bay, FL	14	535,907	yes	yes	0.3%
15	146	Daytona Beach, FL	15	494,300	yes	yes	0.3%
16	234	Athens, GA	16	242,645	yes	yes	0.2%
17	270	Bellingham, WA	12	201,856	yes	yes	3.6%
18	345	California 10 – Sierra	14	101,029	no	yes	0.1%
19	346	California 11 - El Dorado	16	178,471	yes	yes	0.0%
20	371	Georgia 1 – Whitfield	14	303,984	yes	yes	0.1%
21	372	Georgia 2 – Dawson	14	463,537	yes	yes	0.7%
22	488	Minnesota 7 – Chippewa	12	176,553	yes	yes	0.9%
23	598	Oklahoma 3 – Grant	14	229,765	yes	yes	2.5%
24	649	Tennessee 7 – Bledsoe	14	317,163	yes	yes	0.3%
25	667	Texas 16 – Burleson	16	381,676	yes	yes	0.9%
26	695	Washington 3 – Ferry	14	62,329	no	yes	0.5%

<b>Average No. Competitors (weighted by Pop)</b>	<b>13.61</b>	
<b>Total Population</b>		<b>36,700,482</b>

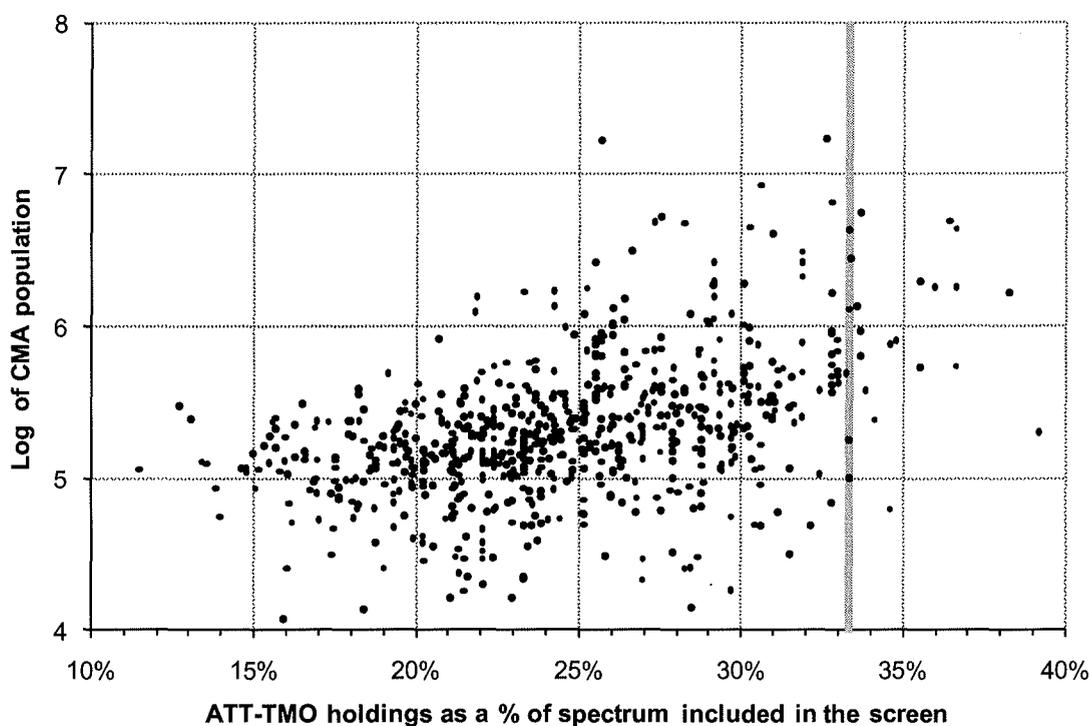
<b>Additional CMAs where screen is reached when considering all AWS and attributable BRS spectrum</b>							
27	73	Oxnard-Simi Valley-Ventura, CA	12	810,359	yes	no	0.3%
28	74	Fresno, CA	15	924,691	yes	yes	0.0%
29	81	El Paso, TX	14	762,563	yes	yes	0.5%
30	322	Arizona 5 – Gila	14	423,896	yes	yes	0.3%
31	343	California 8 – Tehama	12	111,425	yes	yes	0.0%

<b>Average No. Competitors (weighted by Pop)</b>	<b>13.64</b>	
<b>Total Population</b>		<b>39,733,416</b>

Note: The number of competitors counts ATT and TMO as a single firm and counts Sprint and Clearwire as a single firm.  
 Source: Author's calculations based on information in Appendix B, ATT and TMO's Public Interest Statement

- (48) To see the relation between the CMAs being identified by the screens above and the population in the CMAs, consider the figure below, which shows a scatter plot of ATT-TMO's share of the base level of spectrum (defined as the spectrum screen of 183 MHz times three) in each CMA vs. the logarithm of the population in the CMA. A vertical bar positioned at the standard one-third spectrum screen is shown on the graph.

**Figure 2: ATT-TMO's spectrum holdings and CMA population**



Source: Author's calculations based on information in Appendix B, ATT and TMO's Public Interest Statement.

- (49) As one can see from Figure 2, relative to the total number of CMAs, only a small number of CMAs are indicated as a potential concern using this screen (those to the right of the vertical bar), and those CMAs tend not to be among the smallest ones in terms of population. In addition, it is clear from the figure that, for the vast majority of CMAs, ATT-TMO's spectrum holdings are well below this spectrum screen. In fact, for the majority of CMAs, ATT-TMO's spectrum holdings would be below 25% of the base level of spectrum.<sup>41</sup>
- (50) The spectrum screens applied to generate Table 1 are, as the name suggests, intended as screens. Below I discuss various facts and analyses that might be used to evaluate whether the CMAs

<sup>41</sup> ATT-TMO's spectrum holdings would be below a 25% screen in 394 CMAs, which is 55% of the 716 CMAs in the 50 U.S. states plus the District of Columbia.

identified in Table 2, and potentially other CMAs, are locations where the transaction might create concern or whether these factors might mitigate any concerns.

### D.3. Existing and potential competitors alleviate concerns

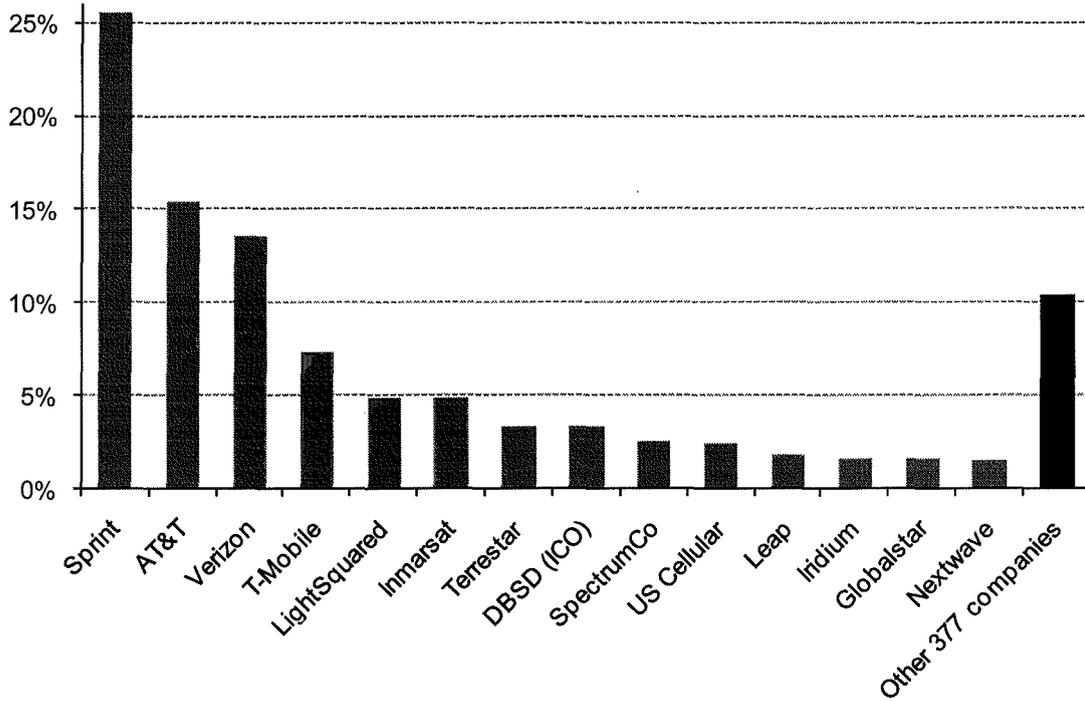
- (51) A key point apparent from Table 2 is that the number of spectrum holders in the identified CMAs is large. As shown in the table, the average number of spectrum holders for the CMAs identified by the screens shown there is approximately 14, with a minimum of 12. The large number of potential competitors in each of the CMAs identified in Table 2 helps to mitigate any concern that comes with ATT-TMO's holdings exceeding the spectrum screen. Those other spectrum owners represent potential competition to ATT-TMO and a source of discipline on the pricing and other attributes of ATT-TMO's offerings.
- (52) ATT-TMO, Sprint, and Verizon hold spectrum in all CMAs, and DISH holds spectrum in 653 CMAs (out of 716).<sup>42</sup> Thus, these four spectrum owners are present in 91% of CMAs, thus covering 76% of the U.S. population. In addition, SpectrumCo, the next-most-widely present company, holds spectrum in 476 CMAs (66% of CMAs covering 81% of the U.S. population).<sup>43</sup> The inclusion of MSS spectrum in the set of relevant spectrum for the provision of mobile telephony/broadband services increases the number of relevant spectrum holders in each CMA by 6, with the addition of DBSD (ICO), Globalstar, Inmarsat, Iridium, LightSquared, and TerreStar.
- (53) Figure 3 shows the population-weighted share of spectrum holdings for all of the spectrum holders in Appendix B (based on all AWS and BRS spectrum), where Sprint holdings include Clearwire spectrum. The figure shows that in addition to the four largest operators, there are 10 companies holding a share of population-weighted U.S. spectrum between 1.5% and 4.9%, and many regional operators whose smaller shares may not appropriately reflect their competitive importance in local markets.

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<sup>42</sup> As described in the FCC's *Sprint-Clearwire Order*, Sprint has 51% ownership of the recreated Clearwire. Because Sprint might be able to use its control of Clearwire to ensure that there is not significant rivalry between itself and Clearwire, I view Sprint and Clearwire as a single entity for the purposes of this section.

<sup>43</sup> Although there is ownership overlap between SpectrumCo and some other holders of spectrum—including Comcast, which owns 10 to 15MHz of WCS spectrum in 149 CMAs (accounting for 25% of the U.S. population)—at the time SpectrumCo purchased its spectrum in the AWS auction (SpectrumCo only owns spectrum in the AWS band), Time Warner, which does not have independent spectrum holdings, had a share of 28.50% in SpectrumCo. Because of the relative complexity of the governance of the SpectrumCo joint venture and because of the fact that Time Warner is a significant stakeholder with no other independent spectrum holdings, I treat SpectrumCo as a separate competitive entity.

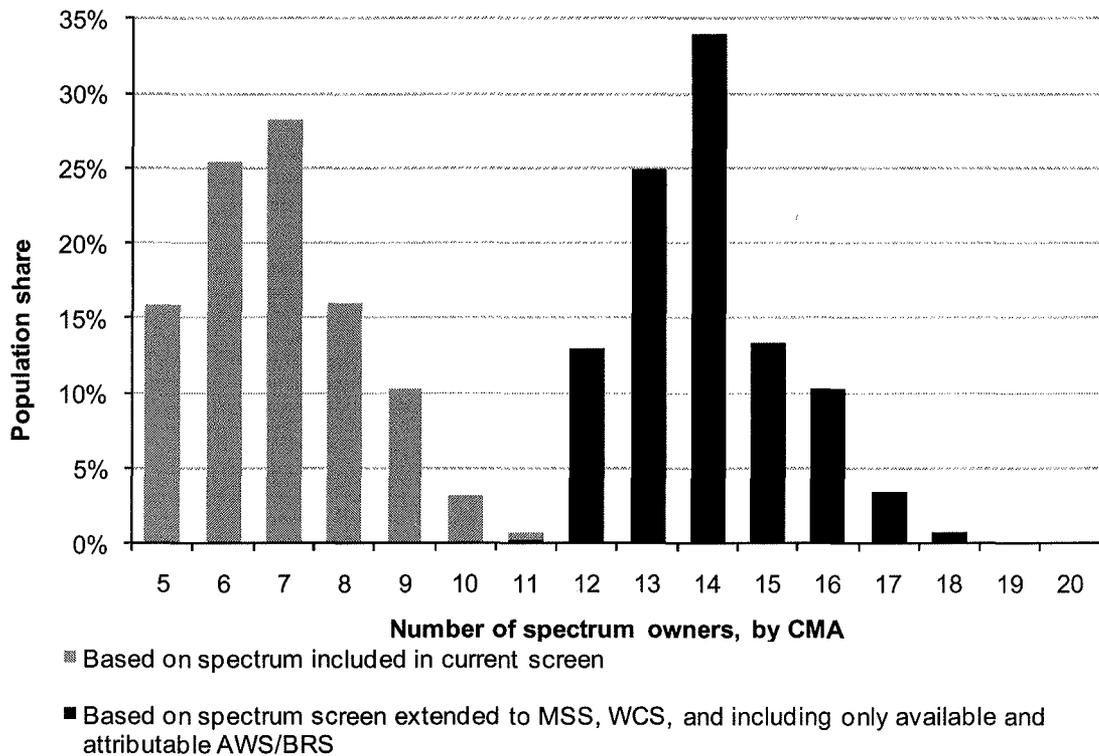
**Figure 3: Population-weighted share of spectrum holdings (based on all AWS and attributable BRS spectrum)**



Source: Author's calculations based on information in Appendix B, ATT and TMO's Public Interest Statement.

- (54) Figure 4 shows the share of U.S. population living in CMAs with different numbers of post-transaction spectrum owners. This number varies depending on the spectrum considered. The figure contrasts the screen applied by the FCC in the past and in ATT and TMO's Public Interest Statement with the one that I have argued is more appropriate.

**Figure 4: Share of U.S. population in CMAs with a given number of spectrum owners**



Note: The number of competitors counts ATT and TMO as a single firm and counts Sprint and Clearwire as a single firm.  
 Source: Author's calculations based on information in Appendix B, ATT and TMO's Public Interest Statement.

- (55) This figure shows that even if one limits attention to spectrum bands that have already been recognized as providing competition in mobile telephony/broadband services, all of the U.S. population lives where there will be 5 or more spectrum owners following the transaction. Approximately 60% of the population lives in CMAs where there will be 7 or more spectrum owners, and about 30% of the population lives in CMAs where there will be 8 or more spectrum owners. With the more expansive view of which spectrum might be used to provide competition in mobile telephony/broadband services, the entire population faces at least 11 spectrum owners, most (62%) face at least 14, and about a third (28%) face at least 15.
- (56) It does not appear that any of the larger regional providers have a significant presence in the CMAs identified by the screen.<sup>44</sup> However, it may be significant to the evaluation of competitive effects that Clearwire's 4G mobile broadband service is currently offered in 11 of the CMAs

<sup>44</sup> Regional competitors would include US Cellular, Cellular South, Cincinnati Bell, nTelos, Atlantic Tele-Networks, and others according to the Declaration of Carlton et al. at ¶75. A review of the listed providers' websites suggests they do not serve (facilities-based services) the identified markets. See <http://www.uscellular.com/coverage-map/voice-and-data-maps.html>, <https://www.cellularsouth.com/coverage/apcoverage.html>, <http://www.cincinnati-bell.com/>, and <http://nteloswireless.com/stores/>.

identified by the screen.<sup>45</sup> These include San Francisco-Oakland, Houston, Miami-Ft. Lauderdale, Atlanta, Denver-Boulder, Sacramento, Salt Lake City-Ogden, Jacksonville, Orlando, Daytona Beach, and Bellingham, WA, which represent 80% of the population of 26 CMAs exceeding the first screen and 74% of the population of the 31 CMAs exceeding the second screen. This potentially important new source of competition may alleviate competitive concerns in those markets.

## D.4. Further evaluation of spectrum screens

- (57) In this section, I discuss facts and analysis beyond the number of existing and potential competitors discussed in Section D.3 that might be used to evaluate whether the CMAs identified in Table 2, and potentially other CMAs, are locations where the transaction might create concern.

### D.4.1. County-based application of the screen is conservative

- (58) As mentioned above, Table 2 takes the approach of identifying a CMA as one where ATT-TMO would be above the spectrum screen if there is any county in the CMA where ATT-TMO's spectrum holdings would exceed the screen. This assumption might cause an entire CMA to be identified as "above the screen" when only a small share of the population of the CMA lives in areas where ATT-TMO's holdings exceed the screen.
- (59) For example, ATT and TMO's application of the lower spectrum screen in their Public Interest Statement identified Nashville (CMA 46) as a CMA where ATT-TMO's spectrum holdings would exceed the screen. However, in five out of eight of the counties in the CMA, representing one-third of the population, their spectrum holdings would be below the screen.<sup>46</sup>
- (60) As another example, ATT and TMO's application of the lower spectrum screen identifies Arkansas 12—Ouachita (CMA 335). Although that CMA is identified as exceeding the spectrum screen, an examination of spectrum holdings at a county level reveals that the screen would be exceeded in only one of the CMA's ten counties, representing only 7% of the population of the CMA.

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<sup>45</sup> See <http://www.clearwire.com/company/our-company> for a list of 70 markets in which Clearwire currently offers 4G service, including San Francisco, Houston, Miami, Atlanta, Denver, Sacramento, Salt Lake City, Jacksonville, Orlando, Daytona Beach, and Bellingham, WA (accessed May 25, 2011).

<sup>46</sup> ATT and TMO's Public Interest Statement, Appendix A (pp. 6–7) and App. C (p.1). County-level population figures are estimates for July 2010 from the U.S. Census Bureau (available at <http://www.census.gov/popest/counties/tables/CO-PEST2010-totals.csv>, downloaded May 20, 2011).

#### **D.4.2. Lack of CMA-wide availability of spectrum may reduce ATT-TMO's effective spectrum**

- (61) As shown in Table 2, for some of the CMAs identified, some AWS spectrum, including some held by ATT-TMO, may not have full usefulness because of the existence of counties in the CMA where that spectrum is not available. In these cases, ATT-TMO's effective capacity in the CMA may be less than one would expect if all of ATT-TMO's AWS spectrum in the CMA were available. This effect potentially reduces the competitive effects of the transaction in these CMAs.
- (62) See the appendix for more details of AWS availability by spectrum owner.

#### **D.4.3. Effects on investment need to be considered**

- (63) One CMA where ATT-TMO's spectrum holdings exceed the screen of Table 2 is Houston. A closer look at Houston reveals some issues that need to be taken into account before taking the opinion that the transaction is a concern in this CMA.
- (64) A recent press release relating to ATT's wireless service in Houston reports that ATT has "invested more than \$825 million in our Houston area wireless and wireline networks from 2008 through 2010" and indicates that ATT is planning to invest heavily in its Houston infrastructure in 2011 to enable 4G speeds and increase wireless network capacity.<sup>47</sup> It might be that it is ATT's significant market share in Houston that gives ATT the incentive to invest so that it can offer more profitable services to its existing customers, or the investment might be a response by ATT to competitive pressure in the market. In either case, it is not clear that consumers in Houston would be well served by some disposition of TMO's spectrum holdings other than having them come under the control of ATT. Competition authorities would need to think carefully about the consequences for investment of removing from ATT the additional capacity that would be contributed by TMO.

#### **D.4.4. Possible metrics for additional case-by-case analysis**

- (65) For a more in-depth analysis of certain CMAs, one might consider comparing various possible metrics of the competitiveness of markets in CMAs of concern versus other CMAs or nationwide rates. For example, a high customer switching rate may indicate a high level of competition in a market.<sup>48</sup> A low dropped call rate might reflect aggressive investment in quality as a result of competition.<sup>49</sup> To the extent that high customer switching rates or high levels of investment,

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<sup>47</sup> ATT News Release, "AT&T Building Most Advanced Mobile Broadband Experience in Houston, Announces 2011 Network Upgrade Plans," Feb. 8, 2011, available at <http://www.att.com/gen/press-room?pid=19033&cdvn=news&newsarticleid=31584&mapcode=wireless-networks-general|wireless>.

<sup>48</sup> The FCC requirement of local number portability potentially may facilitate the collection of customer switching data.

<sup>49</sup> ATT puts forth its low dropped call rate for Houston as a marker of the quality of its Houston service. (AT&T News Release, "AT&T Building Most Advanced Mobile Broadband Experience in Houston, Announces 2011 Network

particularly for ATT, indicate that ATT is constrained by competitive pressure within a particular CMA, then the transaction creates less of a concern for that CMA.

## D.5. Implementation of HHI-based screens

- (66) The FCC has relied on a combination of spectrum screens and HHI-based screens in identifying markets of concern. The FCC's HHI-based screens typically use subscriber shares to measure market shares. For example, in *Verizon-ALLTEL*, the FCC identified markets for further case-by-case analysis by looking for those that exceeded the spectrum screen *and* where "the HHI would be greater than 2800 and the change in HHI will be 100 or greater, or the change in HHI would be 250 or greater, regardless of the level of the HHI."<sup>50</sup>
- (67) The FCC's HHI screen differs from the HHI ranges and increments identified in the *Merger Guidelines*.<sup>51</sup> These differences are appropriate, because the FCC takes into account the specific technological and economic characteristics of markets for mobile telephony/broadband services when identifying concentration levels potentially of concern. In particular, the FCC has made an effort to consider the scale economies related to the fixed costs associated with providing mobile telephony/broadband services in determining what it views as the relevant concentration thresholds.<sup>52</sup> If the minimum efficient scale is large relative to potential demand, then concentration is less of a concern because the price reductions associated with having fewer firms each operating at a larger, more cost-effective scale may outweigh any price increases associated with the reduced rivalry that can come with higher concentration. For these reasons, one would expect, and not necessarily be concerned by, higher concentration in geographic areas with lower population or other factors tending to reduce demand for mobile telephony/broadband services in the geographic area or with lower population density or other factors tending to increase the costs of providing adequate coverage.<sup>53</sup>
- (68) Further investigations that the FCC would consider based on subscriber shares are appropriate and may reduce concerns related to some of the CMAs identified in Table 2.

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Upgrade Plans," Feb. 8, 2011, available at <http://www.att.com/gen/press-room?pid=19033&cdvn=news&newsarticleid=31584&mapcode=wireless-networks-general|wireless>).

<sup>50</sup> FCC, *Verizon-ALLTEL Order* at ¶78.

<sup>51</sup> The *Merger Guidelines* suggest that in looking for markets where the transaction would "potentially raise significant competitive concerns and often warrant scrutiny," one would look for markets with a postmerger HHI between 1500 and 2500 and an increase of more than 100 or markets with an HHI greater than 2500 and an increase between 100 and 200. Where the transaction would result in a postmerger HHI greater than 2500 and an increase greater than 200 points, the transaction "will be presumed to be likely to enhance market power." (*Merger Guidelines* at Section 5.3)

<sup>52</sup> FCC, Twelfth CMRS Competition Report at ¶53. ([http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-08-28A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-08-28A1.pdf)).

<sup>53</sup> As described in the FCC's Twelfth CMRS Competition Report at ¶54, relevant demand and cost factors also potentially include per-capita income, urbanization, the age distribution of the population, and the size and composition of the business sector.

- (69) I do not have access to data on firms' subscriber shares in the different CMAs, but the data provided in Appendix B of ATT and TMO's Public Interest Statement provides information on the spectrum holdings, and to the extent that spectrum holdings proxy for capacity, those spectrum holdings provide information about capacity shares in the various markets. As a measure of the "potential HHI" if all firms' output were in proportion to their spectrum holdings, I consider the HHIs calculated based on spectrum shares of existing spectrum holders (i.e., I exclude still unlicensed/unallocated spectrum but include MSS, WSC, and all AWS and attributable BRS spectrum).
- (70) None of the CMAs identified in Table 2 has a post-transaction potential HHI greater than 2800, and so all pass the first of the FCC's HHI screens. In fact, all 716 U.S. CMAs have a post-transaction HHI less than 2500. However, all of the CMAs identified in Table 2 have a change in potential HHI greater than 250, and so fail the second of the FCC's HHI screens.
- (71) An examination of HHI's based on subscriber shares would likely be more informative about the extent of possible competitive effects in the CMAs identified in Table 2.

## **E. Traditional share-based screens may not accurately reflect competitive effects**

- (72) Share-based screens can be informative as to competitive effects, but other considerations are also relevant. As described in the FCC's Fourteenth CMRS Competition Report: "Shares of subscribers and measures of concentration are not synonymous with market power – the ability to charge prices above the competitive level for a sustained period of time. High market concentration may be a reasonable proxy for significant market power when a reduction in the number of competitors or an increase in their shares of subscribers result in significantly fewer constraints on the market power of the remaining firms. However, market concentration, by itself, is an imperfect indicator of market power."<sup>54</sup>
- (73) Factors that constrain market power include the potential for significant new entry into the market and the presence of innovative activity with the potential to undercut the market power of established firms.<sup>55</sup> Traditional share-based screens may identify individual markets as potentially of concern when a proper accounting of the potential for entry and future competition and the role of innovative activity significantly lessens that concern.

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<sup>54</sup> FCC, Fourteenth CMRS Competition Report at ¶55.

<sup>55</sup> See, e.g., FCC, Fourteenth CMRS Competition Report at ¶55.

## **E.1. Potential for entry and expansion**

- (74) Successful entry into a mobile telephony/broadband services market requires that a provider be able to build up a critical mass of customers sufficient to cover initial investments (fixed costs) in a reasonable amount of time. There are features of the mobile telephony/broadband services markets in the United States that make them more accessible to new entrants than in certain other countries.
- (75) A key consideration faced by potential entrants in mobile telephony/broadband services is that a minimum level of network infrastructure in a geographic area is required in order to provide a marketable service in area. Aspects of the U.S. markets aid firms in their ability to achieve a customer base that is sufficient to support that minimum level of infrastructure, thus putting the entrant in a position to achieve long-run viability. In Section E.1.1, I discuss how the payment regime in the United States of “Receiving Party Pays” (RPP) facilitates entry and expansion by smaller providers relative to the alternative of “Calling Party Pays” (CPP). In Section E.1.2, I discuss some changes in the U.S. market that have reduced switching costs for mobile wireless customers. In Section E.1.3, I discuss policies that encourage competition from new entrants.

### **E.1.1. RPP versus CPP reduces barriers to entry and expansion**

- (76) Mobile wireless providers in the United States operate under the paradigm of Receiving Party Pays (RPP) instead of the Calling Party Pays (CPP) paradigm, which is used for mobile wireless service in most other countries and which is used in the United States for wireline-to-wireline calls (where part of the per-minute price the caller pays on a long-distance call is paid out as an “access charge” to the receiving party’s network).
- (77) RPP is likely to make U.S. local mobile telephony markets more competitive, more easily contestable by new entrants, and less prone to anticompetitive exploitation of large customer bases—say, due to first-mover advantage or a merger.
- (78) Under the CPP regime, a firm with many subscribers can offer end-users plans with relatively inexpensive on-net calls. These plans are particularly attractive because of the incumbent’s large market share, which means many calls are on-net. To counteract incumbent’s “tariff-mediated network externalities” and attract subscribers, small firms/entrants must offer inexpensive calls both on-net and off-net. However, the off-net calls create “access deficits” because the small firms must pay into the incumbent’s “terminating access” monopoly (over a large number of subscribers). These payments far exceed the incumbent’s payment to its competitor’s terminating monopoly over few subscribers. In this way, CPP regimes create a type of barrier to entry and expansion not present in RPP regimes.

- (79) Economists and industry experts have recognized the benefits associated with RPP as compared to CPP. For instance, Stephen Littlechild (both an economist and an industry expert) wrote that: “Evidence from RPP countries is consistent with RPP solving market power problems. CPP is almost certainly less efficient than RPP. ... If the aim is efficient resource allocation, undistorted by excessive termination charges and subsidized handsets, to be achieved by competition rather than price controls, then RPP is preferable to CPP.”<sup>56</sup>
- (80) In conclusion, the RPP regime in the U.S. mobile wireless industry is likely to provide spectrum holders that are planning to expand/launch new services with a better ability to challenge incumbents than the one enjoyed by entrants in the rest of the world.

### **E.1.2. Policies that reduce switching costs promote competition**

- (81) As described in Klemperer (1995, p.515), “consumer switching costs give firms a degree of market power over their repeat-purchases, and mean that firms’ current market shares are important determinants of their future profits.”<sup>57</sup> Conversely, a reduction in switching costs reduces the market power that firms have.
- (82) Switching costs play a role in markets for mobile telephony/broadband service for a variety of reasons. Consumers face search costs to identify and learn about a new service provider. It may be costly for consumers to establish a billing relationship with a new provider or learn to use a new handset. Consumers incur costs if their mobile phone number changes, and consumers might be uncertain about the quality of service—particularly local-level coverage and signal strength from a new provider. The long-term nature of some contracts, including the possibility of explicit early termination fees (ETFs), creates switching costs, as well as network effects associated with reduced pricing for in-plan calls.
- (83) The FCC has given attention to the reduction of switching costs among mobile wireless customers. Changes that have reduced switching costs in markets for mobile telephony/broadband service include the introduction of number portability and the voluntary commitment by providers to prorate early termination fees.
- (84) As described by the FCC, “Local number portability (LNP) refers to the ability of users of telecommunications services to retain, at the same location, existing telecommunications numbers when switching from one telecommunications carrier to another. Prior to the Commission’s actions to require local number portability, the cost and inconvenience to consumers of changing to a new telephone number was considered a significant barrier to switching, reducing the

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<sup>56</sup> Stephen C. Littlechild, “Mobile Termination Charges: Calling Party Pays versus Receiving Party Pays,” *Cambridge Working Papers in Economics*, University of Cambridge (2004).

<sup>57</sup> Paul Klemperer, “Competition when Consumers have Switching Costs: An Overview with Applications to Industrial Organization, Macroeconomics, and International Trade,” *Review of Economic Studies* 62, (1995): 515–39.

likelihood a consumer would move to a new service provider and thus impeding competition. Now that consumers can retain their telephone numbers within a given geographic area, this switching cost has been significantly reduced as a consideration in determining whether or not to change mobile wireless service providers.”<sup>58</sup>

- (85) The FCC has given attention to the issue of ETFs through public hearings, requests for information, and with reprimands for mobile wireless providers viewed as requiring unreasonable ETFs. At the FCC’s public hearing on June 12, 2008, FCC Chairman Kevin Martin proposed five rules designed to guarantee consumer protection, one of which was that ETFs should be prorated over the life of the contract.<sup>59</sup> Although no rules have yet been established explicitly for ETFs by the FCC, all major carriers have since publicly committed to prorate their ETFs.<sup>60</sup>

### **E.1.3. Policies that encourage new entrants promote competition**

- (86) FCC has given attention to the promotion of new entrants through the design of bandplans to include smaller licenses (both in terms of their bandwidth and geographic coverage) and by offering bidding credits at FCC spectrum license auctions for small businesses.
- (87) For example, the 700MHz Auction included a block of 12MHz licenses defined over the relatively small Cellular Market Areas (CMAs),<sup>61</sup> with reduced reserve prices for rural CMAs.<sup>62</sup> In addition, qualifying bidders in the 700MHz Auction were eligible for “small” or “very small” business bidding credits of 15% or 25%, respectively.<sup>63</sup> The bidding credit program for small and very small bidders supported many license purchases. Of the 1,090 licenses sold, 712 were sold to large bidders, 49 to small bidders, and 329 to very small bidders. Of the 101 winning bidders, 45 were large, 20 were small, and 36 were very small. The FCC discounted license prices to small and very small bidders by a total of \$162,795,850.<sup>64</sup>

## **E.2. Role of innovative activity**

- (88) The existence of firms with substantial market share is of less concern for the competitiveness of a market if the market is dynamic in the sense that product offerings are evolving quickly, and especially if the larger firms are capacity constrained and obliged to continue to provide service under legacy technologies. The need for ATT and TMO to continue to provide service for

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<sup>58</sup> FCC, Fourteenth CMRS Competition Report at ¶242–3.

<sup>59</sup> FCC Chairman Kevin J. Martin, Remarks, Early Termination Fees, Public Hearing, June 12, 2008, p.2, [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-282898A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-282898A1.pdf).

<sup>60</sup> FCC, Fourteenth CMRS Competition Report at ¶235.

<sup>61</sup> [http://wireless.fcc.gov/auctions/default.htm?job=auction\\_summary&id=73](http://wireless.fcc.gov/auctions/default.htm?job=auction_summary&id=73).

<sup>62</sup> FCC Procedures Public Notice (DA 07-4171) at ¶211.

<sup>63</sup> [http://wireless.fcc.gov/auctions/default.htm?job=auction\\_factsheet&id=73#Small Business Bidding Credits](http://wireless.fcc.gov/auctions/default.htm?job=auction_factsheet&id=73#Small Business Bidding Credits).

<sup>64</sup> [http://wireless.fcc.gov/auctions/default.htm?job=auction\\_summary&id=73](http://wireless.fcc.gov/auctions/default.htm?job=auction_summary&id=73).

customers using legacy handsets and technologies limits the extent to which they can deploy their spectrum and other network resources to compete with new entrants offering services based on next-generation technologies. This suggests that one concern associated with having firms in a market with large market shares, that they might act so as to preclude profitable entry, may be less of a concern here. Legacy obligations mean that the larger firms may be more limited in their ability to take advantage of technological advances to protect their market shares than would otherwise be the case.

## Appendix

### Detail of AWS availability by spectrum holder

22.197	CMAs where AWS is unavailable in at least 1 county			CMAs where AWS is available in all counties			AWS holdings (regardless of availability)	
	MHz*	CMAs	POPs	MHz*	CMAs	POPs	CMA	POPs
T-Mobile	88.00	38,851,799	19	484.00	226,895,313	572	266,000,000	591
SpectrumCo	54.00	10,370,966	20	447.00	195,661,917	501	206,000,000	521
Verizon	89.00	43,353,833	15	365.00	154,932,410	454	198,000,000	469
AT&T	77.00	25,945,305	12	396.00	155,931,558	473	182,000,000	485
Leap	43.00	24,677,856	13	195.00	107,670,607	238	132,000,000	251
MetroPCS	16.00	5,408,348	13	109.00	46,978,298	125	52,400,000	138
Aloha	19.00	28,617,184	16	71.00	19,133,273	90	47,800,000	106
Cox	27.00	7,685,470	11	141.00	37,219,176	168	44,900,000	179
US Cellular	23.00	4,494,056	11	69.00	15,760,286	92	20,300,000	103
Cavalier	7.00	2,765,443	10	29.00	6,922,999	36	9,688,442	46
Cellular South	6.00	1,255,721	9	25.00	6,770,278	31	8,025,999	40
NextWave	12.00	2,330,333	8	18.00	4,889,916	30	7,220,249	38
Cleartalk	7.00	1,357,922	16	33.00	4,901,408	40	6,259,330	56

\* Simple average (by CMA) of population-weighted (by county population) CMA-specific holdings.  
 Source: Author's calculations based on information in Appendix B, ATT and TMO's Public Interest Statement.