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# Breathing New Life into Old Technological Infrastructure: Broadband Internet as a Means of Jump-Starting the Economy and Connecting the Country

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# THE LEGISLATION AND POLICY ROUNDTABLE



**AN ECONOMY IN CRISIS: WHAT CAN BE DONE?**

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## **Breathing New Life into Old Technological Infrastructure: Broadband Internet as a Means of Jump-Starting the Economy and Connecting the Country**

**Elizabeth Chernow**

### **Introduction**

Theodore Vail, a former President of AT&T, first coined the term “universal service” in 1907, proclaiming that anyone could have affordable telephone service under “one system, one policy, universal service.”<sup>1</sup> In 1907, no one could have foreseen the growth of communications technologies over the next century. Though universal phone service continues to serve important public safety and connectivity purposes, universal broadband, or high-speed internet access, has become even more crucial for Americans.

Recently, Congress has been focusing on expanding the implementation of broadband internet. The Federal Communications Commission (FCC) defines broadband internet as internet services available at speeds exceeding 200 kilobits per second (Kbps), which can transmit large amounts of data.<sup>2</sup> Depending on regional availability, broadband subscribers can access the internet through a digital subscriber line (DSL), a cable modem, fiber, wireless, satellite, or broadband over power line technology.<sup>3</sup> Despite these innovations, the concept of universal service, in its application to basic telephone services, has changed little.

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<sup>1</sup> K. Joon Oh, Completing the Connection: Achieving Universal Service Through Municipal Wi-Fi, 2006 DUKE L. & TECH. REV. 1, 3 (2006).

<sup>2</sup> Federal Communications Commission, High Speed Internet Access – “Broadband”, available at <http://www.fcc.gov/cgb/consumerfacts/highspeedinternet.html> (last visited Mar. 29, 2009).

<sup>3</sup> Federal Communications Commission, What is Broadband?, available at <http://www.fcc.gov/cgb/broadband.html> (last visited Mar. 29, 2009).

The FCC has determined that broadband internet provides unprecedented access to resources and services, including education, healthcare, and public safety.<sup>4</sup> According to FCC then-Commissioner, and current Acting Chairman Michael Copps, “high speed, high value broadband isn’t a luxury any more – it’s a necessity, and universal service ought to be driving its deployment into every house and business in America.”<sup>5</sup> The rhetoric emphasizing the importance of deployment does not echo the reality. In the Organization of Economic Co-Operation and Development (OECD) rankings of broadband penetration in 30 countries, the U.S. has plummeted from 4th in 2001 to 15th in 2007.<sup>6</sup> Reversing this trend could be just what the country needs at a time of unprecedented economic upheaval.

This paper examines the current structure of universal service and the FCC’s Universal Service Fund, recent pushes to expand the definition of and funding for universal service to include broadband access, and how broadband internet can contribute to saving the ailing economy. This paper concludes by calling for the inclusion of broadband internet in the Universal Service Fund.

### **Funding the Universal Service Fund**

The FCC derives its authority to maintain the Universal Service Fund from the Communications Act of 1934, which Congress amended sixty-two years later as the Telecommunications Act of 1996. Under the Act, the FCC has the authority to regulate interstate commerce in communication “so as to make available ... to all the people of the United

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<sup>4</sup> *Id.*

<sup>5</sup> Press Release, Federal Communications Commission, Commissioner Michael J. Copps Applauds Joint Board Statement on Comprehensive USF Reform (Sept. 6, 2007), available at [http://fjallfoss.fcc.gov/edocs\\_public/attachmatch/DOC-276474A1.pdf](http://fjallfoss.fcc.gov/edocs_public/attachmatch/DOC-276474A1.pdf).

<sup>6</sup> Robert D. Atkinson, Daniel K. Correa & Julie A. Hedlund, *Explaining International Broadband Leadership*, Info. Tech. & Innovation Found., (2008) at 5, available at <http://www.itif.org/files/ExplainingBBLeadership.pdf> (last visited Mar. 7, 2009).

States, without discrimination on the basis of race, color, religion, national origin, or sex, a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges.”<sup>7</sup>

Section 254 of the Telecommunications Act of 1996 requires the Commission to institute a Federal-State Joint Board on Universal Service, tasked with making recommendations regarding universal service regulations.<sup>8</sup> According to the Act, the goals for advancing universal service include quality services at “just, reasonable, and affordable rates;” access to advanced telecommunications and information services in all regions of the country, including rural and high-cost areas; and access to services for schools, health care providers, and libraries.<sup>9</sup> The Act further states that telecommunications providers cannot discriminate against customers in rural or high-cost areas by charging them higher rates than customers in urban areas.<sup>10</sup>

Currently, the Commission is only required to regulate voice communication services such as voice grade access to the public switched network, and emergency, operator, and directory assistance services.<sup>11</sup> These items fall under the definition of telecommunications services, whereby the public pays a fee to obtain services relating to the transmission of information between parties without a change in the format or the content of the information.<sup>12</sup> When the Commission classifies a service as an internet access service, it means that a user may access services including, but not limited to, content, information, and electronic mail.<sup>13</sup> Telecommunications services are not included in this definition, except to the extent that an

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<sup>7</sup> 47 U.S.C. § 151.

<sup>8</sup> 47 U.S.C. § 254(a)(1).

<sup>9</sup> 47 U.S.C. § 254(b).

<sup>10</sup> 47 U.S.C. § 254(g).

<sup>11</sup> 47 C.F.R. § 54.101.

<sup>12</sup> See 47 U.S.C. § 153 (defining the terms “telecommunications service” and “telecommunications”).

<sup>13</sup> 47 U.S.C. § 151(d)(3)(D).

internet access provider utilizes specifically designated telecommunications services as a means of providing internet access.<sup>14</sup>

Pursuant to these definitions, the Commission has specified that broadband technologies are not telecommunications services; rather, they are information services.<sup>15</sup> The Supreme Court affirmed this classification specifically for cable modem broadband internet in *Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs.*; but, at the time, the Court distinguished DSL broadband internet service, which the Commission had classified as a telecommunications service because it transmits information through telephone lines.<sup>16</sup> The Commission later reclassified DSL, and other wireline based broadband services as information services.<sup>17</sup>

Unlike a telecommunications service, an information service means that a company is offering for a fee, the means of “generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications” without utilizing a telecommunications system or service.<sup>18</sup> This classification poses difficulties in setting forth subsidization policies for the Universal Service Fund.

Under § 254(d) of the Act, Congress has determined that the Universal Service Fund receives its financial backing from telecommunications carriers that provide interstate telecommunications.<sup>19</sup> These carriers must contribute to the “preservation and advancement” of universal service on an “equitable and nondiscriminatory” basis, pursuant to the public interest.<sup>20</sup> Accordingly, most broadband internet services are not currently included when accounting for

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<sup>14</sup> *Id.*

<sup>15</sup> *In the Matter of Section 257 Triennial Report to Congress; Identifying and Eliminating Market Entry Barriers For Entrepreneurs and Other Small Businesses*, Report, 22 FCC Rcd 21132, 21161 (2007).

<sup>16</sup> *Nat'l Cable and Telecomms. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967 (2005).

<sup>17</sup> *In the Matters of Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14853, 14857-14858 (2005).

<sup>18</sup> 47 U.S.C. § 153.

<sup>19</sup> 47 U.S.C. § 254(d).

<sup>20</sup> *Id.*

providers' contributions to the Universal Service Fund. Since broadband internet is not a telecommunications service, if it were to receive financial backing from the Universal Service Fund, that money would be pulled away from the telecommunications services that are already receiving funding. Therefore, in order to implement universal broadband internet successfully, Congress would have to update this provision of the Act to include information service providers or internet access service providers.

Currently, telecommunications companies finance the Universal Service Fund by contributing a percentage of their interstate end-user revenues.<sup>21</sup> Under this procedure, a form of cross-subsidization, money from more profitable service areas, primarily urban areas, is used to support programs requiring subsidization from the Universal Service Fund. The FCC recalculates the contribution factor quarterly, and makes adjustments to the rate depending upon the changing needs of the Universal Service Programs.<sup>22</sup>

Ultimately, telecommunications companies pass along the costs of the Universal Service Fund contributions to their consumers.<sup>23</sup> The Joint Board expressed concern about the impact on consumers and the legality of this option in a 2007 recommendation to include broadband access in the Universal Service Fund.<sup>24</sup> It further stated that the current surcharge rate is near a "historic high," and allowing the surcharge to get much higher could reduce public support for the policy goals of affordable rates for communications technologies and services.<sup>25</sup> To combat this

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<sup>21</sup> FCC, *Contribution Methodology & Administrative Filings*, available at [http://www.fcc.gov/wcb/tapd/universal\\_service/quarter.html](http://www.fcc.gov/wcb/tapd/universal_service/quarter.html) (last visited Mar. 29, 2009).

<sup>22</sup> *Id.*

<sup>23</sup> *In the Matter of High-Cost Universal Service Support; Federal-State Joint Board on Universal Service, Recommended Decision*, 22 FCC Rcd 20477, 20478 (2007).

<sup>24</sup> *See id.* at 20483-20484.

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

concern, the Joint Board recommended capping the costs of funding universal broadband, so like other government-sponsored programs, it would be forced to stay within a budget.<sup>26</sup>

### Universal Service Program Initiatives

According to the Universal Service Administrative Company, which administers the Universal Service Fund, the Joint Board has implemented its obligation by concentrating funds into four program areas: Schools and Libraries, Rural Health Care, Low Income, and High Cost Support.<sup>27</sup> The Schools and Libraries program provides eligible institutions with discounted rates in telecommunications services, internet access, and internal connections, and reimburses service providers for eligible services offered to the schools and libraries.<sup>28</sup> The Rural Health Care program uses this same model, as applied to health care providers in rural areas.<sup>29</sup> The Low Income program consists of three programs, Lifeline, Link Up, and Toll Limitation Service, which reduce the costs of low-income consumers' basic telephone access.<sup>30</sup> Under the High Cost Support program, the Commission provides more than \$4 billion annually to support telecommunications customers all over the country in receiving rates for telecommunications services that are comparable to the rates offered to consumers in urban areas.<sup>31</sup>

Some broadband capabilities have been receiving funding from the Universal Service Fund; however, since the Act only mandates that the Commission regulate voice communication

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<sup>26</sup> *Id.*

<sup>27</sup> See Universal Service Administrative Company, <http://www.usac.org/default.aspx> (last visited Mar. 29, 2009) (listing programs that receive funding).

<sup>28</sup> Universal Service Administrative Company, *Schools and Libraries*, <http://www.usac.org/sl> (last visited Mar. 29, 2009).

<sup>29</sup> Universal Service Administrative Company, *Rural Healthcare*, <http://www.usac.org/rhc> (last visited Mar. 29, 2009).

<sup>30</sup> Universal Service Administrative Company, *Overview of the Low Income Program*, <http://www.usac.org/li/about/default.aspx> (last visited Mar. 29, 2009).

<sup>31</sup> Universal Service Administrative Company, *High Cost: Overview of the Program*, <http://www.usac.org/hc/about/default.aspx> (last visited Mar. 29, 2009).

services,<sup>32</sup> any funding that is currently going to support broadband deployment is solely in the context of providing basic voice telecommunications.<sup>33</sup>

### **Universal Service Structure Should be Modernized**

Under § 254(c), Congress acknowledged the changing nature of telecommunications and information services and technologies, and requires the Joint Board to consider these changes in its recommendations, with regards to education, public health, and public safety; consumers' market choices; deployment of services by telecommunications carriers; and "the public interest, convenience, and necessity."<sup>34</sup> The section of the Act also allows the Joint Board to update the definitions of services that the Universal Service Fund supports.<sup>35</sup> Therefore, any recommended regulations that the Joint Board makes or has recently made in regards to the Universal Service Fund are not only permissible, but are encouraged under the Act.

Pursuant to § 254(c), in 2005, the Commission began acknowledging the need to expand access to broadband.<sup>36</sup> In 2005, the agency released a policy statement declaring that "to encourage deployment and preserve and promote the open and interconnected nature of the public internet," consumers could have choices in the content they wished to access, the applications they used, the devices connecting them to the internet, and the providers whose services they utilize to get online.<sup>37</sup> The Commission further stated that it would implement these principles into future policy making activities.<sup>38</sup>

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<sup>32</sup> 47 C.F.R. § 54.101

<sup>33</sup> *In the Matter of High-Cost Universal Service Support; Federal-State Joint Board on Universal Service, Recommended Decision*, 22 FCC Rcd 20477, 20478 (2007).

<sup>34</sup> 47 U.S.C. § 254(c).

<sup>35</sup> *Id.*

<sup>36</sup> *See generally, In the Matters of Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities*, Policy Statement, 20 FCC Rcd 14853 (2005).

<sup>37</sup> *Id.* at 14988.

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

In a speech one year earlier, President George W. Bush had called for universal, affordable broadband access in the US by 2007.<sup>39</sup> This change in policy is necessary in part because the country is facing an increasing “digital divide,” or a growing gap between those who have access to telecommunications technologies and those who do not.<sup>40</sup> According to a 2006 report from the Government Accountability Office, only twenty-eight percent of Americans are broadband users, while thirty percent still use dial-up internet services, and forty-one percent are not online.<sup>41</sup> The report further indicates that there is a significant divide between rural and urbanized areas; seventeen percent of rural households utilize broadband services, while twenty-nine percent of urban households, and twenty-eight percent of suburban households subscribe to broadband.<sup>42</sup> Reducing this gap would cause financial hardship for broadband providers, as the costs of building the broadband infrastructure in rural areas are much higher than the costs in regions with higher population densities.<sup>43</sup>

The current universal service programs have traditionally been used to subsidize the higher cost of telecommunications services to areas where it is more expensive to deploy. However, as broadband technology has come into fruition as an important means of communication, the programs receiving subsidization from the Universal Service Fund should be updated to encompass this change, consistent with the principles of universal service. In fact, the

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<sup>39</sup> Mark Glaser, *Your Guide to the Digital Divide* (2007), [http://www.pbs.org/mediashift/2007/01/digging\\_deeperyour\\_guide\\_to\\_th.html](http://www.pbs.org/mediashift/2007/01/digging_deeperyour_guide_to_th.html) (last visited Mar. 30, 2009).

<sup>40</sup> Lennard G. Kruger and Angele A. Gilroy, CRS REPORT FOR CONGRESS, *Broadband Internet Access and the Digital Divide: Federal Assistance Programs*, at 2 (2007), <http://www.benton.org/index.php?q=node/6104> (last visited Mar. 30, 2009).

<sup>41</sup> United States Government Accountability Office, Report to Congressional Committee, *Broadband Deployment is Extensive Throughout the United States, But it is Difficult to Access the Extent of Deployment Gaps in Rural Areas*, at 11 (2006), available at [www.gao.gov/new.items/d06426.pdf](http://www.gao.gov/new.items/d06426.pdf) (last visited Mar. 30, 2009).

<sup>42</sup> *Id.* at 13.

<sup>43</sup> *Id.* at 19.

FCC has been seeking comments from stakeholders in the Universal Service Fund for years as to the best means of modernization.<sup>44</sup>

Financial support for the Universal Service Fund is also problematic. Currently, as discussed above, only telecommunications service providers are required to contribute to the fund. This funding structure is an inequitable system, burdening a limited group of carriers, who have incentive to try to limit their contributions to the fund.<sup>45</sup> Under the current structure, as incentive to provide contributions decreases, the viability of the Universal Service Fund will also decrease.<sup>46</sup> Accordingly, Congress and the Commission should work to expand the contribution base for the Universal Service Fund to include companies providing broadband internet services. This expansion would create a more equitable contribution plan by subjecting information service providers and internet access providers to the same types of regulation that the Commission has successfully implemented for telecommunications service providers. Fortunately, policymakers have begun taking steps to try to address the challenges that broadband expansion poses.

### **Recent Congressional Efforts at Improving Broadband Access and Updating the Universal Service Fund to Expand its Contribution Base**

Over the last few years, the concept of universal broadband access has caught Congress' attention. Several bills have been introduced in Congress, which aim to expand universal broadband deployment and alter the current scheme of subsidizing the Universal Service Fund.<sup>47</sup>

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<sup>44</sup> Free Press, *Universal Service Fund*, available at <http://www.freepress.net/policy/internet/broadband/usf> (last visited Mar. 20, 2009).

<sup>45</sup> Universal Service for the 21st Century Act, S. 711, 110th Cong., § 2 (2007).

<sup>46</sup> *Id.*

<sup>47</sup> See Kruger, *supra* note 40, at 16-19 (explaining that both the current Congress and the previous Congress have introduced a variety of legislation on Capitol Hill. Since the previous Congress did not pass any legislation related to this issue, this paper focuses on legislation that is currently pending. In addition to the legislation described in

While much of this legislation died in committee hearings, the onslaught of bills indicates that universal broadband is of the utmost importance to policy makers.

In 2007, three similar acts were introduced in Congress. The USA Act was introduced in the Senate.<sup>48</sup> The proposed legislation would have changed the current funding structure for the Universal Service Fund by requiring communications service providers to contribute to the fund,<sup>49</sup> and the FCC would have been able to update its basis for calculating Universal Service Fund contributions to include revenue from communications services.<sup>50</sup> However, this Act died after being referred to committee.<sup>51</sup> A similar piece of legislation, the Universal Service for the 21st Century Act in the Senate, was also introduced.<sup>52</sup> The Act proposed changes to the Universal Service Fund in the form of an account within the fund to support the deployment of broadband service in areas that are currently without service and an expanded contribution base; this act also failed.<sup>53</sup> Around the same time, the Serving Everyone with Reliable, Vital Internet, Communications, and Education Act of 2007 was introduced in the House of Representatives.<sup>54</sup> This legislation, which proposed to make broadband services available to low-income consumers participating in the Commission's current Lifeline and Link Up programs as a means of advancing universal service initiatives, was quashed shortly after its introduction.<sup>55</sup>

In October 2008, former President Bush signed the Broadband Data Improvement Act.<sup>56</sup> This legislation, aimed at developing broadband technology nationwide, directs the FCC to

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this paper, additional bills for expanding broadband deployment have been proposed that involve other agencies, but do not involve the Universal Service Fund, nor the Commission).

<sup>48</sup> USA Act, S. 101, 110th Cong. (2007).

<sup>49</sup> *Id.* at § 101(d).

<sup>50</sup> *Id.*

<sup>51</sup> *Id.*

<sup>52</sup> Universal Service for the 21st Century Act, S. 711, 110th Cong. (2007).

<sup>53</sup> *Id.* at § 5.

<sup>54</sup> Serving Everyone with Reliable, Vital Internet, Communications, and Education Act of 2007, H.R. 42, 110th Cong. (2007).

<sup>55</sup> *Id.*

<sup>56</sup> Broadband Data Improvement Act of 2007, S. 1492, 110th Cong. (2007).

conduct and make periodic surveys of consumers in all parts of the country in order to evaluate the national characteristics of broadband service capability.<sup>57</sup> The information collected as a result of this legislation will be used to accelerate broadband programs and increase the amount of consumers who receive broadband access.<sup>58</sup>

According to a report from the Government Accountability Office, this legislation was necessary because the FCC did not have an accurate assessment of the need for broadband implementation.<sup>59</sup> Under the FCC's current means of assessment, it looks at zip-code level data to determine where subscribers are served, rather than where providers have deployed access.<sup>60</sup> Senator Inouye, the sponsor of the legislation, explained, "It is imperative that we get our broadband house in order and our communications policy right. We cannot manage what we do not measure."<sup>61</sup>

### **Broadband Provisions in the Economic Stimulus Package**

More recently, the effort creating a national broadband strategy is continuing to veer in the direction of sidestepping universal service altogether. Faced with a worsening economic collapse, on February 17, 2009 – less than a month after taking office – President Barack Obama signed the American Recovery and Reinvestment Act of 2009.<sup>62</sup> Part of the bill divides control of funding for internet access-related programs between the Department of Commerce, via the

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

<sup>58</sup> CFI Group, *Congress Passes the Broadband Data Improvement Act S.1492*, available at <http://www.wirelessindustrynews.org/news-oct-2008/1225-100308-win-news.html> (last visited Mar. 11, 2009).

<sup>59</sup> United States Government Accountability Office, Report to Congressional Committee, *Broadband Deployment is Extensive Throughout the United States, But it is Difficult to Access the Extent of Deployment Gaps in Rural Areas*, available at [www.gao.gov/new.items/d06426.pdf](http://www.gao.gov/new.items/d06426.pdf)

<sup>60</sup> *Id.*

<sup>61</sup> Press Release, United States Committee on Commerce, Science, and Transportation, Inouye Introduces Broadband Data Improvement Act (May 24, 2007), available at [http://commerce.senate.gov/public/index.cfm?FuseAction=PressReleases.Detail&PressRelease\\_id=63a1b00b-ed5e-4c1c-ac78-4b5ac0a54af5&Month=5&Year=2007](http://commerce.senate.gov/public/index.cfm?FuseAction=PressReleases.Detail&PressRelease_id=63a1b00b-ed5e-4c1c-ac78-4b5ac0a54af5&Month=5&Year=2007).

<sup>62</sup> American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115.

National Telecommunications and Information Administration, and the Department of Agriculture.<sup>63</sup> Under this arrangement, the Department of Commerce will distribute \$4.7 billion of the money, and the Department of Agriculture will distribute \$2.5 billion.<sup>64</sup> In March 2009, the FCC, the Department of Commerce, and the Department of Agriculture joined together to kick off the grant programs under the stimulus legislation, and assess the most effective means of implementation.<sup>65</sup> At the time of publication, the three agencies were in the process of seeking public comment and hosting roundtable meetings for interested stakeholders to discuss the nuts and bolts of the programs, including: the program's goals; the role of the States; selection criteria for grant recipients; what entities should be eligible to receive grants; selection criteria for grant recipients; broadband mapping; and timelines.<sup>66</sup>

The Department of Commerce is using the stimulus money to oversee the Broadband Technology Opportunities Program, which funds competitive grants for expanding public computer center capacity, including at community colleges and public libraries, and innovative programs to encourage the sustainable adoption of broadband services.<sup>67</sup> Some of the funding will also go for auditing and oversight of the grant program.<sup>68</sup> In addition, stimulus money is allocated for the development and maintenance of a broadband inventory map.<sup>69</sup> Under the legislation, the Department of Commerce is encouraged to consult with the FCC in the

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<sup>63</sup> Tom Hamburger & Jim Puzanghera, *Crafting the Broadband Provision of the Stimulus Involved Plenty of Networking*, L.A. TIMES, Feb. 17, 2009, available at <http://www.latimes.com/business/la-fi-broadband17-2009feb17,0,6620246.story>.

<sup>64</sup> *Id.*

<sup>65</sup> Press Release, National Telecommunications and Information Administration, U.S. Department of Agriculture, and Federal Communications Commission, Vilsack, Copps and Wade Kick Off American Recovery and Reinvestment Act's Broadband Initiative (Mar. 10, 2009), available at <http://www.ntia.doc.gov/broadbandgrants/index.html>.

<sup>66</sup> *Id.*

<sup>67</sup> American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115 (codified as amended at 19 U.S.C.A. § 2497).

<sup>68</sup> *Id.*

<sup>69</sup> *Id.*

development of a national broadband plan, and may transfer some funding to the FCC in order to carry out this project.<sup>70</sup>

The Department of Agriculture is also using the stimulus money to fund a grants program, as well as for broadband loans and loan guarantees.<sup>71</sup> According to this provision, at least 75 percent of the areas served must be rural areas without sufficient access to high-speed broadband, in order to facilitate rural economic development.<sup>72</sup> The agency is required to prioritize programs that it can fully fund, and that will serve the highest proportion of rural residents who do not currently have access to broadband service.<sup>73</sup>

### **The Broadband Payout**

Though the potential for economic development and job growth with increased broadband deployment is not disputed, details on the extent to which that growth will occur are sketchy at best.<sup>74</sup> One major barrier to obtaining an accurate projection of the economic effects of broadband internet is that broadband is an infrastructure component that produces spillover effects.<sup>75</sup> Accordingly, it could take years before the full potential of broadband is realized.<sup>76</sup>

A 2007 Brookings Institution study found a positive correlation between broadband penetration and employment, particularly in the finance, education, and healthcare industries.<sup>77</sup> Specifically, for every one percentage point increase in broadband deployment, employment is

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<sup>70</sup> *Id.*

<sup>71</sup> American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115 (codified as amended at 1 U.S.C.A. § 1).

<sup>72</sup> *Id.*

<sup>73</sup> *Id.*

<sup>74</sup> Hamburger & Puzanghera, *supra* note 63.

<sup>75</sup> Robert Crandall, William Lehr and Robert Litan, *The Effects of Broadband Deployment on Output and Employment: A Cross-Sectional Analysis of U.S. Data*, Issues In Economic Policy, The Brookings Institution (July 2007) at 2, available at <http://www.benton.org/?q=node/6568> (last visited Mar. 7, 2009).

<sup>76</sup> *Id.*

<sup>77</sup> *Id.*

projected to increase by 0.2 to 0.3 percent per year.<sup>78</sup> However, studies on the economic impact of increased broadband deployment have produced a variety of results. In some cases, the trade unions and telecommunications companies that would benefit most from the stimulus money funded some of the more optimistic economic projection studies, including one study that predicted the creation of one million jobs.<sup>79</sup>

Though the provisions of the stimulus legislation do not specifically account for the Universal Service Fund, it could be instrumental in increasing support for broadband internet in rural areas, where it is most expensive to deploy.<sup>80</sup> Broadband expansion in rural areas could provide economic assistance to these parts of the country.<sup>81</sup> By using technology to bridge the gap between rural and urban America in this manner, rural businesses can reach new markets, and rural economies can become engines for information age jobs, with higher employee pay.<sup>82</sup>

## Conclusion

Recently, Congress has finally taken concrete steps in affirming its commitment to broadband deployment across the country. Though the initial payout from nationwide broadband deployment remains unknown, the ultimate payout could have a significant positive effect on the economy, and improve access to education, healthcare, and public safety.<sup>83</sup> Ultimately, over time, nationwide broadband deployment could have tremendous implications.

Though the ongoing Congressional efforts to prioritize broadband deployment are impressive, eventually they must be included in the Universal Service Fund. Congress has

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<sup>78</sup> *Id.*

<sup>79</sup> Hamburger & Puzanghera, *supra* note 63.

<sup>80</sup> Robert D. Atkinson & Daniel D. Castro, *A National Technology Agenda for the New Administration*, 11 YALE J. L. & TECH. 190 (Fall, 2008-2009).

<sup>81</sup> Benton Foundation, *The Benefits of Universally Available Broadband are Enormous*, available at <http://www.benton.org/index.php?q=node/5026#families> (last visited Mar. 7, 2009).

<sup>82</sup> *Id.*

<sup>83</sup> Federal Communications Commission, *supra* note 3.

approached this idea in the past, but it is a huge undertaking, and interested parties have struggled to figure out how to implement this important change.<sup>84</sup> However, the prospect of incorporating broadband into the Universal Service Fund draws wide support from both public interest groups<sup>85</sup> and industry.<sup>86</sup> Though there is still a need for broadband deployment programs that reach unserved and underserved communities in non-rural areas, the Universal Service Fund is a substantial resource that is already in place to reach underserved communities in rural areas, and could therefore play a significant role in getting broadband out to these communities. Failure to switch programs funded under the Universal Service Fund to broadband technology will eventually render the Universal Service Fund wasteful and obsolete.<sup>87</sup> 

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<sup>84</sup> Matthew Lasar, *Can Broadband Save the Universal Service Fund*, *Ars Technica* (Mar. 16, 2009) at 2, available at <http://arstechnica.com/tech-policy/news/2009/03/can-broadband-save-the-universal-service-fund.ars>.

<sup>85</sup> See Benton Foundation, *Building Broadband into Universal Service*, available at <http://www.benton.org/node/14877> (last visited Mar. 30, 2009).

<sup>86</sup> See Adam Bender & Howard Buskirk, *Old Broadband Battles Flare as FCC Crafts Plan for Rural America*, *Communications Daily*, Mar. 27, 2009, at 2-3.