Telecom Unplugged:
Ushering in a New Digital Era

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INTRODUCTION

In October 2007, Citizens Against Government Waste (CAGW) published *Telecom Regulation: Pulling the Plug on Government Interference*. The report noted that the rapid deployment of new technology was leaving a bevy of federal regulations over the telecommunications and cable industries in the dust. Today’s converging communications and information technology (IT) environment has greatly enhanced and expanded how people around the world communicate and share information. The rapid adoption of Smartphone technology has enabled people to carry computers in the palms of their hands, and today’s college freshmen are routinely equipped with laptops, cell phones, and tablets. The list of new mobile computing devices grows daily. This report, *Telecom Unplugged: Ushering in a New Digital Era*, updates CAGW’s 2007 report.

Music and video are no longer limited to the living room but can be enjoyed through a wide range of options, including cable, fiber optic, satellite, and broadband, as well as wireless devices, anywhere at any time. Social media platforms including Facebook, Twitter, Pinterest, and others have become major sources of information sharing. At the 2013 Cable Show, cloud-based video platforms were introduced by Comcast and Time Warner Cable that would provide video programming and storage to consumers. Despite these innovations, the communications industry is still saddled with a regulatory regime that harkens back to the early 1930s and, for common carriers, back to the early days of the railroad industry in the late 1800s.

The Communications Act of 1934 was the first formal attempt to provide regulatory continuity to the growing telephone industry as it began to reach across the nation and connect people thousands of miles away from each other through a copper-wire line. In 1992, the Cable Act was passed in response to concerns that the broadcast industry needed protection when dealing with cable companies. The Telecommunications Act of 1996 further regulated both the telephone and cable industries following the breakup of the Bell companies.

None of those laws foresaw today’s rapidly changing innovative marketplace, nor did they account for any future changes in technology that will greatly expand communications. While the communications industry continues to rapidly evolve, the federal government moves at a
snail's pace to adapt, leaving in place old models governing technology and communications that should no longer apply to modern times. Unfortunately, these obsolete telecommunications regulations are stifling innovation and putting taxpayers and consumers at risk.

In his 1984 book, *Burning Money, The Waste of Your Tax Dollars*, that summarized the Grace Commission's findings, Peter Grace described the technological ignorance pervading the federal government. At the time of the book's publication, the average age of a government computer was 6.7 years; the average computer used by a U.S. business was three years old. Government computer systems were incompatible and required service technicians specifically trained to maintain the outdated equipment. The extra bodies added $1 billion to the federal payroll over a three-year period. Meanwhile, in the private sector, IBM's General Systems Division updated its computer technology, saving $360,000 in the first six months after installation, and the Boeing Military Airplane Company's new word processing system saved $483,000 over a nine-month period.

In the 30 years since Mr. Grace published his book and cofounded CAGW with syndicated columnist Jack Anderson, the federal government's technological ineptitude has persisted. The current telecommunications debates and the federal government's attempts to regulate the industry are symptoms of larger problems.

From 1989 to 2000, 223 bills were introduced in Congress dealing with some portion of the telecommunications industry; 22 of them, including the Telecommunications Act of 1996, were signed into law. From 2001 to 2010, only 78 such bills were introduced, seven of which became law. The 2012 edition of Title 47, the chapter of the U.S. Code governing the telecommunications industry, now encompasses 3,668 pages. While the private sector speeds ahead with more innovation in response to consumer demand, the federal government lags behind trying to play catch up and fails to see the impact of its policies on taxpayers and consumers.

The telecommunications industry generates approximately $347 billion annually or 2.4 percent of the GDP as measured by output, labor, input, investment and international trade;¹ and provides 2 million

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direct and indirect jobs. Yet this innovative and important sector of the economy remains hampered with antiquated laws and regulations.

This paper reviews several areas where government intervention or lack of intervention harms taxpayers and consumers. Topics include the implications of current and proposed Internet tax laws, federally funded broadband deployment, the provision of tools such as spectrum to enable improved communications across the nation, and Internet governance issues in the United States and around the world.

"Improving the Internet is just one means, albeit an important one, by which to improve the human condition. It must be done with an appreciation for the civil and human rights that deserve protection—without pretending that access itself is such a right."  

In 2009, as required by the American Recovery and Reinvestment Act (ARRA or stimulus), the FCC began the development of a National Broadband Plan (NBP), to ensure that every American has “access to broadband capability.”

In early 2010, the NBP called for the establishment of competition policies, ensuring efficient allocation and use of government-owned and government-influenced assets, ensuring universal access to broadband network services, and aligning incentives to maximize broadband use for national priorities.

The plan's mission was to ensure that all Americans have access to broadband capability and to establish benchmarks for meeting this goal. The FCC expanded the definition of universal service to include broadband services and began transitioning the USF program into an umbrella fund that includes the Connect America Fund (CAF) in October 2011.

Since the NBP was released, the federal government has increased the minimum upload and download speeds service providers are required to provide in order attain minimum service standards. It has also invested tax dollars to build new broadband infrastructure where it already exists, also known as overbuild, in order to meet the NBP's goals. The federal government is not alone in overbuilding broadband infrastructure. States and local governments have also invested taxpayer dollars into providing broadband service as a public utility, often in direct competition with existing

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35 Ibid.

private companies that have already heavily invested in such services.

This chapter will explore efforts to increase Internet use at the taxpayers’ expense.

THE NATIONAL BROADBAND PLAN

In addition to bringing broadband access to all Americans by 2020, the NBP calls for providing 100 million U.S. homes with affordable access to download speeds of at least 100 megabits per second (Mbps) and upload speeds of at least 50 Mbps; leading the world in mobile innovation, with the fastest and most extensive wireless networks of any nation; giving every American affordable access to robust broadband service, and the means and skills to subscribe if they so choose; increasing the speed of broadband service to at least 1 gigabit per second to anchor institutions such as schools, hospitals, and government buildings; providing first responders with access to a nationwide, wireless, interoperable broadband public safety network; and, ensuring that all Americans are able to use broadband to track and manage their real-time energy consumption.\(^37\)

On August 21, 2012, the FCC issued its eighth annual report on advanced communications capability in America, pursuant to Section 706 of the Telecommunications Act of 1996.\(^38\) In its findings, the FCC determined that 19 million Americans currently do not have fixed broadband capabilities. That means that 95 percent of Americans have access to broadband Internet services compared to 15 percent in 2003, yet the FCC concluded in its findings that its “implementation work is far from complete.”

Because 5 percent of the population was still either underserved or unserved by broadband at a certain minimum acceptable speed, the FCC called for an increase in federal funds to deploy broadband services. Underpinning the details of the FCC’s report is the implication that the U.S. is lagging behind other countries in broadband deployment and, therefore, needs government intervention to improve the nation’s standing globally.

In contrast to the FCC’s assessment of the country’s global competitiveness, Akamai’s State of the Internet report for the fourth quarter of

\(^{37}\) Ibid.

2012 found that the U.S. ranked seventh in high speed broadband adoption, and the average peak broadband connections in North America reached more than 30,000 kilobits per second (Kbps), compared to 25,000 Kbps in Europe and 22,000 Kbps in Asia.\(^39\) U.S. Telecom estimated that private sector investment reached $66 billion in 2011 for a total of $1.2 trillion of improved broadband services across the nation since 1996.\(^40\) The FCC report acknowledges private-sector investments in the pursuit of expanding mobile broadband, but discounts these substantial investments and achievements in its final analysis of the success of broadband deployment toward meeting the NBP’s goals.

On June 14, 2013, the White House released a report on the state of broadband. According to the report, in 2000, 4.4 percent of American households had a broadband connection in their homes; by 2010 that number had reached 68 percent. Average delivered speeds have doubled since 2009.\(^41\) In 2012, the average mobile data connection speed was 2.6 Mbps, nearly twice that available in Western Europe, and more than five times the global average.\(^42\)

In his dissenting views to the FCC’s August 2012 report, Commissioner Robert M. McDowell stated that in 2011 more than $25 billion had been invested in wireless infrastructure in the U.S., with nine out of every 10 Americans having a choice among at least five wireless service providers. In addition, Commissioner McDowell noted that the U.S. leads the world in 4G mobile broadband deployment.\(^43\) Even as mobile technology advances, the FCC continues to focus on fixed broadband technology in its findings as the only meaningful measure of broadband access.

As Commissioner Ajit Pai stated in his dissenting remarks, “The

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\(^{42}\) Ibid.

Commission’s authority to enforce net neutrality, subsidize broadband for low-income households, or support digital literacy programs hangs in the balance each year, dependent on a finding that broadband is not being deployed in a reasonable and timely fashion.” Pai continued, “if we believe instead that data should drive our decisions—not vice versa—then section 706(b) can never be a reliable authority for implementing good policy since we will eventually be forced to concede once again that broadband is being deployed in a timely and reasonable fashion.”

Commissioners Pai and McDowell make the same point that CAGW has been making about the NBP: it defines broadband in such a way that taxpayer dollars will continue to be invested in broadband infrastructure despite proof that the private sector has been and will continue to be more efficient and capable of providing these services.

NEED A PHONE? UNIVERSAL SERVICE FUND CAN HELP

The Universal Service Fund (USF) was created following enactment of the Telecommunications Act of 1996 in order to meet the Act’s universal service goals. USF fees are paid by the telecommunications industry, using a formula called the contribution factor. These fees are typically passed along to subscribers as a hidden tax on their monthly telephone bills.

The USF yields approximately $8 billion annually. There are four programs that receive USF funds: the Schools and Libraries program, also known as E-Rate; the High Cost program, which provides grants to build out telecommunications infrastructure in underserved or unserved areas of the country; the Rural Healthcare program, which provides telecommunications services, including broadband, to eligible health care providers; and the Low-Income Support program, which includes the Lifeline and Link-Up

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programs. The Link-Up program provides a one-time discount of up to $30 off of either the initial installation fee for one traditional wireline phone service to the home or the activation fee for one wireless phone service. The Lifeline program discounts the basic monthly phone service by up to $10.00 per month for either a wireline phone or a wireless phone.46

The USF contribution factor is recalculated quarterly solely by the FCC to ensure that the USF fund will have enough capital to meet its program obligations, based on demand for each of the four programs supported by the USF. Between 2000 and 2012, the fees paid into the USF increased by 205 percent, from 5.7 percent to 17.4 percent of subscriber phone charges.

While the demand for the E-Rate program and the Rural Healthcare program have remained relatively stable, with only slight increases due to economic factors, the program demands of both the High Cost program and the Lifeline/Linkup programs have dramatically increased. In 2000, the USF spent a total of $4 billion, with $1.9 billion provided for the High Cost program, $1.6 billion for the E-Rate program, less than $50 million for the Rural Healthcare program, and $500,000 for the Lifeline/Link-Up

In 2012, the USF spent a total of $8.71 billion, with $4.15 billion provided for the High Cost program, $2.22 billion for the E-Rate program, $2.19 billion for the Lifeline/Link-Up programs, and $106 million for the Rural Healthcare program.\textsuperscript{48}

A large part of the reason for the significant increase in the contribution factor occurred in 2005, when the Lifeline program was expanded to allow telephone companies to provide discounted wireless service, including prepaid wireless phones, to certain eligible individuals in some states. In October 2010, GAO published a report on the Lifeline and Link-Up programs that showed a significant increase in demand for them from 2008 to 2009, attributable in part to the increased availability of discounted wireless service for eligible individuals.\textsuperscript{49} From 2005 to 2008, payments ranged from between $802 million to $823 million annually. However, in 2009, these payments increased to approximately $1 billion.\textsuperscript{50}

An August 17, 2012 article in the \textit{Middletown Journal} exemplified the explosive growth of the Lifeline program in Ohio, noting that “compared to the first quarter of 2011, the number of people in the program nearly doubled to more than a million.”\textsuperscript{51} Program costs increased from $15.6 million in the first quarter of 2011 to $26.9 million in the first quarter of 2012. Continued growth of the program could result in increased fees on the average telephone bill as the contribution fee is recalculated to account for the increased costs.

Not only did the October 2010 GAO report detail a dramatic increase in the nationwide use of Lifeline services, but it also revealed multiple instances of fraud and abuse within the program. For example, some recipients were using Craigslist to advertise the sale of Lifeline-subsidized phones and service. In other instances, Lifeline beneficiaries violated the one phone line constraint by using multiple phones.

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\textsuperscript{50} Ibid.

restriction of the program by signing up for service from multiple carriers. On June 29, 2011, the FCC published final rules to address the fraud and eligibility issues highlighted in the GAO report, codifying the restriction that an eligible low-income consumer could not receive more than one Lifeline-supported service at a time and ordering that any subscriber receiving multiple benefits in violation of the rule must be removed from the program.  

In remarks before Third Way on January 9, 2012, then-FCC Chairman Julius Genachowski laid out plans to close loopholes in the program’s eligibility requirements and strengthen cost controls in an effort to further reduce the amount of waste, fraud and abuse. He also detailed an expansion of the Lifeline program to include broadband services as one of the choices individuals would be eligible to receive, emphasizing that the current service options are outdated by providing only basic telephone service. On January 10, 2012, the FCC announced it would be considering the chairman’s reform proposal to its Lifeline/Link-Up programs at its next meeting scheduled for January 31, 2012. This change was included in the NBP, which also proposed transforming the USF High Cost program into the Connect America Fund.

On January 31, 2013, the FCC’s Wireline Competition Bureau released its final report on the Lifeline program savings target for 2012, noting that the FCC’s reforms resulted in $213 million in savings to the USF compared to projected distributions to eligible carriers before implementation

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of the reforms.\textsuperscript{57} The Wireline Bureau anticipates additional savings to the USF in 2013 and later years as a result of the reforms implemented in 2012.\textsuperscript{58}

The telecommunications industry is one of the most heavily taxed sectors of the economy. The cost burden of the USF fee for taxpayers will only continue to rise, particularly with the expansion of broadband through the Connect America Fund.\textsuperscript{59} As the FCC continues reviewing the Lifeline and Link-Up programs, it should evaluate the fiscal impact of additional subsidies on average, middle-class Americans, who are being skewered by their monthly communications bills.

\section*{CONNECTING AMERICA ONE HIDDEN TAX AT A TIME}

On February 8, 2011, the FCC initiated USF reform proceedings in an effort to reduce waste, fraud and abuse in the program, as well as to expand the program to include broadband services to underserved and unserved areas of the country. Using the NBP as guidance, the commission voted unanimously on October 27, 2011, to approve its 759-page plan to merge the USF and Intercarrier Compensation (ICC) into the Connect America Fund (CAF).\textsuperscript{60}

The original USF program defined universal service as telephone services for rural and underserved areas of the country, where the cost of providing these services was too high for communications companies to bear alone. In expanding the definition of universal service to include broadband services, the FCC stated that Section 254(c) (1) of the Telecommunications

\begin{footnotesize}
\textsuperscript{58} Ibid.
\textsuperscript{60} Ibid.
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Act of 1996 defined universal service as “evolving.” In its November 28, 2011, order and report, the FCC adopted a new principle that provides “support for advanced services” as a universal service, which will likely result in the continuation of the USF fee in perpetuity.

The intent of the FCC’s reform efforts is to provide a response to the evolution and modernization of digital technology, as well as address issues of waste within both the USF and ICC programs. With many companies hiring job applicants online, schools relying more frequently on web-based textbooks, and colleges and universities offering online courses, access to the Internet has become an important component in the nation’s economic and educational future. According to the FCC’s website, “Broadband has gone from being a luxury to a necessity for full participation in our economy and society—for all Americans.”

Although 96.2 percent of Americans have the ability to access phone service, funding to companies that support the USF high-cost component grew from $2.6 billion in 2001 to $4.5 billion in 2011, despite the fact that wireless service is less costly and more efficient. Former FCC Chairman Genachowski stated on October 6, 2011, that the USF is wasteful and inefficient; paying some companies almost $2,000 a month for a single home phone line.

The FCC anticipates that the CAF program will be able to connect seven million unserved and underserved rural Americans to fixed broadband in six years and connect all 19 million unserved and underserved rural residents by 2020. In 2012, the FCC launched Phase 1 of the program, distributing approximately $115 million in public funding, coupled with private investments, to expand broadband infrastructure in rural areas across the country. Phase II of the plan will use a forward-looking broadband cost model and competitive bidding to support deployment of networks that will provide both voice and broadband service for the next five years. Without

a concise and accurate definition of “underserved” to determine eligibility for federal assistance, funding could be distributed to regions that already have adequate services offered by the private sector, creating federally-funded overbuild projects.

The USF should be drawn down with the ultimate goal of elimination rather than expansion. Without the USF, the rigorous market-driven competition that is occurring in the telecommunications industry, particularly wireless, will address access and pricing problems. Unless the USF is terminated, the FCC can further expand universal service, and continue this hidden and unnecessary tax and regulatory scheme.

**E-RATE REFORMS TO BRING DIGITAL LEARNING TO AMERICAN SCHOOLS**

When the Telecommunications Act of 1996 was enacted, 14 percent of schools had Internet access and most were connected through dial-up modems. Today, virtually all schools and libraries are connected to the Internet.\(^{65}\)

In 2010, the FCC began the process of updating the E-Rate program to bring high-speed, affordable broadband to schools and libraries, and make the program more effective and efficient. Participants can use E-Rate funds to connect to the Internet in the most cost-effective manner available; make available “school spots” for students to use in their local communities after schools are closed; and, provide learning “On the Go,” which is off-campus wireless Internet connectivity for mobile learning devices.\(^{66}\)

While it has helped to provide connectivity to schools and libraries, the E-Rate program has also been subject to waste, abuse, and mismanagement. The program application process has an imbalanced priority system and fails to review applications in a technology-neutral manner. Currently, telephone services are considered priority one services. Applications for such services receive more funds than other services, such as broadband connectivity, which are designated as priority two services. The process for applying for the grants is also complicated, making it difficult for

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smaller schools and libraries to compete for E-Rate funding. In addition, according to Commissioner Pai, nearly $800 million of E-Rate funding from 2012 has not yet been distributed.\(^6\)

A June 2004 CNET article cited approximately 40 fraud cases under investigation at that time by the FCC, the Department of Justice and the FBI.\(^6\) In 2010, it was revealed that three employees of the Houston Independent School District had allegedly accepted meals and gifts from E-Rate vendors, causing the school district to lose $105 million in federal funding.\(^6\) In February 2012, the former owner of two telecommunications companies in Illinois was sentenced to 30 months for conspiring to provide kickbacks and bribes to several school officials responsible for procuring bids for Internet service access under the E-Rate program.\(^7\) Investigations by the Department of Justice’s Antitrust Division led to 24 people pleading guilty, being convicted at trial, or entering into civil settlements. Fines and restitution from these investigations total more than $40 million.\(^7\)

According to a report released during The Cable Show in June 2013 from Cable in the Classroom on “Trends in K12 Education,” 33 percent of schools currently use social media in teaching, 46 percent plan to exclusively use online assessment tests within the next five years, 50 percent of schools have adopted a formal plan to transition to digital textbooks by 2018, and 20 states have already shifted their funding from print to digital textbooks. Yet 80 percent of the schools surveyed for the report indicated that their existing broadband connections are insufficient to meet their current needs.\(^8\)

Broadband brings technology innovation to the classroom, including digital textbooks, interactive learning games, digital instruction personalized for each student, and online courses from colleges and universities. In May 2013, the Georgia Institute of Technology announced plans to offer a massive


\(^{7}\) Ibid.

\(^{8}\) “Trends in K12 Education: Why Cable Content and Service Providers Should Care,” Cable in the Classroom, June 2013.
open online course (MOOC) for a master’s degree in computer science in collaboration with Udacity Inc. and AT&T for $7,000, a significant cost savings for those seeking higher education.\(^{73}\)

Several proposals have been made to revamp the E-Rate program. On April 11, 2013, FCC Commissioner Jessica Rosenworcel laid out her suggestions at the Washington Education Technology Policy Summit.\(^{74}\) Her E-Rate 2.0 proposal called upon the FCC to perform additional auditing to find savings and root out waste in the program; increase broadband capacity to schools by delivering 100 percent access to 100 Mbps per every 1,000 students by 2015 and 1 gigabit per second (Gbps) per every 1,000 students by the end of the decade; develop new and creative public-private partnerships to provide students and teachers access to content and devices; reduce the administrative paperwork and expense by simplifying the process for applicants; and, find ways to make broadband access more affordable to low-income households.

On June 6, 2013, President Obama announced his new ConnectED program, which would use federal resources to bring a minimum of 100 Mbps broadband with a goal of 1 Gbps to 99 percent of all schools by 2015. The program would be included in the E-Rate program, which would force increases in the USF fees paid by consumers on their communications bills. According to a speech by Department of Education Secretary Arne Duncan at The Cable Show on June 12, the cost would amount to the price of a postage stamp on these bills. On August 13, 2013, an article in The Washington Post noted the effort “would cost billions of dollars, and Obama wants to pay for it by raising fees for mobile-phone users.”\(^{75}\)

On July 16, 2013, Commissioner Pai unveiled his E-Rate reform proposals as a cost-effective alternative to the President’s ConnectED program at an event sponsored by the American Enterprise Institute (AEI).\(^{76}\)


Rather than expanding the funding stream by increasing USF fees, Pai offered commonsense reforms that would reduce bureaucratic red tape and place funding directly where it is needed most. Citing delays in processing complicated applications, programs that are heavily focused on bureaucracy instead of the students, and misplaced or out-of-date priorities in the administration of E-Rate funds as well as lack of oversight in the program, Pai called upon his fellow commissioners to increase transparency and oversight and reform the program to a “Student-Centered E-Rate Program.”

Unlike the manner in which the E-Rate program is currently administered, which requires school districts to file complicated applications and undergo lengthy appeal processes, Pai proposed the following: allocate the existing E-Rate budget across every school in the country, divided up on a per student basis, with rural schools and poorer communities receiving a higher per student rate than more urban or affluent communities; re-direct funding currently being used for telephone services toward technology to prepare the nation’s students for the future; simplify the E-Rate application process; and, require schools to spend $1 for every $3 in funding they receive through the program on communications services and new technologies, with school administration officials certifying that funds are used to the direct benefit of students.

On July 17, 2013, the Senate Committee on Commerce, Science and Transportation held a hearing titled “E-Rate 2.0: Connecting Every Child to the Transformative Power of Technology.”77 Witnesses recommended that the application process for the E-Rate program should be simplified; funds should be more equitably distributed across all communities, particularly those in extremely rural regions of the country; technology should be put directly into the hands of students; and, the U.S. should retain its technological competitiveness in the global economy. They also called for increased funding to the E-Rate program and a lifting of the current funding cap on the program to accommodate current financial needs of both existing applicants and future program growth.

On July 19, 2013, the FCC met to discuss, among other items, E-Rate reforms. Following the meeting, the FCC issued a Notice of Proposed Rule Making (NPRM) to obtain comments on how the program can be

reorganized to meet the goals of the President’s ConnectED program. The NPRM seeks to provide increased connectivity to high-capacity broadband; create efficient purchasing of services through bulk buying, consortia, and competitive bidding improvements; and, cut the red tape in order to speed, streamline, and increase transparency in application reviews.

Although the USF should be eliminated entirely, while the E-Rate program exists every effort to reduce inefficiencies, waste and abuse must be undertaken. The FCC reform efforts will increase fiscal responsibility and improve management. Efforts to improve digital learning across the country are laudable; many private sector companies are already stepping up to the plate to improve technology and digital literacy in schools through programs like Connect2Compete, EveryoneOn, and Comcast’s Internet Essentials.

On October 29, 2013, Comcast Executive Vice President David L. Cohen testified on “Broadband Adoption: The Next Mile” before the Senate Committee on Commerce, Science, and Transportation Subcommittee on Communications, Technology and the Internet. In his testimony, Cohen announced that Comcast’s Internet Essentials program had connected an estimated 1 million low-income individuals, or more than 250,000 families to the Internet at home. Through their efforts and partnerships with community organizations such as the Boys and Girls Clubs of America, Comcast is working to improve digital literacy for the youth of America in order to help them succeed. These private sector efforts will end up making ConnectED another wasteful program that will fail to meet its stated goals at the taxpayers’ expense.

Ultimately, the future of the E-Rate program lies with the FCC. As Commissioner Pai stated in his remarks before AEI, the NPRM is the beginning of the process, and the goal is to implement the final reforms in time for the start of the school year in the Fall of 2014. Commissioner

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Pai called for full public participation in the process, asking to hear from all interested parties including teachers, parents, the telecommunications industry, public policy advocates, and government officials.

**MUNICIPAL BROADBAND: POOR SERVICE AND MISMANAGEMENT AT TAXPAYER EXPENSE**

As Internet use has grown and spurred on the economy, municipalities across the country are seeking ways to redefine Internet access as a public utility. According to a March 2013 report by the Advanced Communications Law and Policy Institute at New York Law School, there is a wide array of broadband available across the U.S. offering consumers a menu of service options that includes cable modem, fiber, and wireless, with more than 1,600 companies currently providing broadband Internet access, compared to only 130 companies in 2000. 83

Municipal broadband networks, also known as government-owned networks (GONs), are funded at taxpayer expense and often compete against private sector broadband investments. The building of municipal broadband in communities across the country is driven by the purported desire to “plug gaps” in broadband access; inject competition into the local and national marketplace; spur local economic development; achieve ubiquitous gigabit connectivity; and, provide local self-reliance and self-determination in the broadband space. 84 Proponents of these initiatives argue that localities should be allowed to “partner” either “directly or indirectly” with the public or private sector to provide broadband services. However, opening the door to publicly-funded telecommunication services also puts municipalities into competition with existing businesses.

The March 2013 New York Law School study of the rationales for building municipal broadband concluded that those areas which lack adequate access to broadband (the 5 percent of the country that is unserved) are in locations that are either remote, or difficult and expensive to provide service. The establishment of GONs that compete with existing providers stems from a pessimistic view of broadband in the U.S. and contradicts the analysis that the U.S. broadband market is “vibrantly competitive.” The


GONs wrongly place municipalities and policymakers as the best judges of whether the U.S. marketplace is effectively competitive.

Another rationale used to promote GONs is that municipal broadband was originally conceived to include critical functions like public safety yet, in order to obtain a better return on their investments, the GON is opened up to compete head-to-head with existing providers. The network is also needed to serve as the foundation for a “smart” community and smarter services, implying that the investments are vital to bolster the local economy, but this rationale does not look at whether the municipality is better equipped to provide the service than the private sector. Finally, there is the local self-reliance rationale, which stipulates that municipalities should have the freedom to do what they want in the broadband space.\(^{85}\)

Studies have shown that municipal efforts to build their own broadband infrastructure are not always the best solution, as these networks use taxpayer funds and federal grants to build networks in areas already served by high-speed Internet service providers (ISPs); lack a sustainable business plan and long-term resources to invest in maintenance and upgrades as technology evolves; and, compete unfairly with existing providers, putting private firms at a competitive disadvantage as the municipality engages in anticompetitive activities.\(^{86}\)

Among the most egregious examples of wasteful municipal broadband is the Utah Telecommunications Open Infrastructure Agency (UTOPIA), a consortium made up of 11 municipalities with the objective of building a fiber-optic network as a public utility that would provide broadband connectivity to their communities. UTOPIA began in 2002 with a $135 million bond; the system was supposed to have been completed in three years and have a positive cash flow in five years.\(^{87}\) In 2006, the system received a $66 million loan from the Rural Utilities Service (RUS). UTOPIA was given $21 million of that amount, but in 2008 RUS suspended the rest of the funding until UTOPIA “improved its financial condition and developed


a new business plan.”

In April 2012, there were only 9,340 subscribers, less than 20 percent of the anticipated number of 49,350 projected by network administrators to have been on board by September 2007. Taxpayers in member cities were left with the bill to pay for a failed experiment in the development of a fiber-optic network as a public utility. In November 2013, residents of Orem voted against a property tax referendum that would have helped pay some of the city’s costs for participation in the UTOPIA consortium. The city must now look for other measures to subsidize its $2.8 million obligation to fund the project.

Some cities have used public-private partnerships for broadband deployment. A prime example is the Google Fiber broadband deployment in Kansas City, which began in July 2012. Kansas City was promised Google Fiber at speeds of 1 Gbps and in exchange permitted Google to use city-owned office space and utilities during the build-out at no charge to the company.

In July 2004, Provo, Utah, began a build-out of its fiber-optic network, known as iProvo, to be operated as a publicly-run utility. The $39 million debt would be paid for through a $5.35 tax, known as a “telcom debt charge,” on monthly utility bills of city residents. On April 18, 2013, Google and the city announced that Google would be bringing Google Fiber to the city as part of an agreement by the local government to sell the existing

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88 Ibid.
89 Ibid.
municipal fiber deployments for $1.\textsuperscript{95} While the sale gets Provo out of the business of providing Internet service to its residents, the taxpayers are still paying the bills for the prior debt.

There have been some attempts to restrict a city’s ability to build municipal broadband, particularly in areas where ISPs already exist. In March 2013, the Georgia state legislature defeated a bill to ban city-owned broadband services.\textsuperscript{96} The bill sponsor, Rep. Mark Hamilton (R-Cumming), discussed the wasteful spending occurring in these systems, while his colleague, Rep. Jay Powell (R-Camilla), countered that providing ISP broadband service in some areas of his district was very difficult.

A July 16, 2013, article in Wired described the difficulties ISPs have to overcome if they wish to build broadband infrastructure in local communities.\textsuperscript{97} These include pole attachment fees and access to publicly owned rights-of-way, which can potentially double the cost of network construction.

Success stories in municipal broadband are few and far between. Chattanooga, Tennessee was the first city to offer speeds of up to one Gbps broadband service, which is 200 times faster than the average speed in the U.S. and 10 times faster than the 2020 goal set by the Obama administration, as well as “smart metering” services for businesses. This municipal broadband project was highlighted by Susan Crawford in her book, Captive Audience: The Telecom Industry and Monopoly Power in the New Gilded Age.\textsuperscript{98} But even the supposed success stories have problems. Chattanooga needed a one-time infusion of $110 million in federal taxpayer dollars in order to build its fiber system, and remains more than $200 million in debt with repayment not expected until at least 2020.\textsuperscript{99} Crawford highlighted the “success” of the Chattanooga project, and called upon America to move to a “utility model”


\textsuperscript{99} Joseph D. Fuhr, Jr., PhD, “The Hidden Problems with Government-Owned Networks.”
for broadband services at taxpayer expense.\textsuperscript{100}

Rather than force municipalities into situations in which they feel they must build out GONs, state and federal officials must work cooperatively to remove any barriers or regulations that may be stifling the private sector from entering this field. It is through working together that local communities across the country will be able to ensure that their citizens will be provided with up-to-date telecommunications technology now and well into the future, without being burdened with the expense of building and maintaining a taxpayer-financed system.

At a time when local governments already face major financial challenges and are struggling to balance their budgets, using scarce resources to fund unnecessary GONs would be an irresponsible use of taxpayer dollars.

\textbf{THE RURAL UTILITIES SERVICE HAS OUTLIVED ITS USEFULNESS}

Pigs, corn, cows, wheat, and broadband. The common thread that ties these items together is the U.S. Department of Agriculture (USDA). It may seem incongruous that the USDA is involved in broadband investments across the country, particularly in light of the FCC’s role in promoting broadband deployment as part of the NBP; yet, the USDA plays an active role through the RUS. The agency grew out of the remnants of the Rural Electrification Administration (REA), which was created in the 1930s. The primary goal of the REA was to promote rural electrification to farmers and residents in out-of-the-way communities where the cost of providing electricity was considered too expensive for local utilities to bear alone.

By 1981, 98.7 percent of Americans had electricity and 95 percent had telephone service. Rather than declaring victory and shutting down the REA, the RUS was born, and its mandate was expanded to provide loans and grants for activities including telephone service to underserved areas of the country. That mission was further expanded in 2002 to include broadband services to rural areas of the country unserved or underserved by existing service providers. This sounds much like the mission undertaken by the USF, but without a clear definition of what constitutes an underserved region of the country.

\textsuperscript{100} Susan Crawford, “Captive Audience,” p. 265.
A September 2005 USDA Inspector General (IG) report noted:

RUS has not maintained its focus on rural communities without preexisting service. Although the language of the law specifies that these Federal loans and grants are for rural communities, RUS has codified and implemented a definition that cannot reliably distinguish between rural and suburban areas. Furthermore, we question whether the Government should be providing loans to competing rural providers when many small communities might be hard pressed to support even a single company. In these circumstances, RUS may be setting its own loans up to fail by encouraging competitive service; it may also be creating an uneven playing field for preexisting providers operating without Government assistance.  

In 2009, the USDA IG reported that RUS had not fully implemented corrective action in response to eight of the 14 recommendations from the 2005 report and continued to make loans to providers in areas with preexisting service, sometimes in close proximity to large urban areas.

During the open comment period in late 2011 and early 2012 for the restructuring of the USF program, the RUS raised concerns to the FCC about the effect reforms might have on its program. Positioning itself as an incentive lender, rather than a lender of last resort, RUS suggested that the reorganization could have consequences affecting the qualification of applicants for its loan program, because the RUS includes USF grants, intercarrier compensation, end user revenues, and other funding sources when examining the financial stability and creditworthiness of its loan applicants. A July 9, 2012, article in Fierce Telecom reiterated this position when it reported on concerns of the Rural Broadband Alliance that, with caps


on payments to rural telecommunications providers, some loan recipients “might not be able to pay back their Rural Utilities Service (RUS) loans.”

This wasteful spending in federal broadband programs has the potential to allow double-dipping into multiple federal pots of money.

In its 2013 *Prime Cuts* report, CAGW highlighted wasteful spending at RUS and called for its elimination, which would save $9.6 billion in one year and $48.1 billion over five years. While RUS provides funding for more than just broadband deployment, those projects are appallingly wasteful. In 2009, Buford Communications of LaGrange, Arkansas, (population 122) received $667,120 to build a hybrid fiber coaxial network and a new community center. This equates to $5,468 per resident of LaGrange.

The debate over the 2013 Farm Bill provided a golden opportunity to eliminate this outdated, wasteful agency. Some moderate RUS broadband reforms were included in the Senate version of the bill.

The RUS program picks winners and losers in already competitive marketplaces at the taxpayers’ expense. When government competes with the private sector, the taxpayers lose.

Failure to eliminate the antiquated RUS or prevent further expansion of the program results in taxpayers being stuck with this unnecessary, duplicative, and excessively expensive program into the foreseeable future. It is time to unplug the RUS.

**STIMULATING EXCESSIVE BROADBAND**

When he signed the stimulus bill, President Obama promised that the $862 billion expenditure of taxpayer dollars would provide jobs and improve the economy. Everyone has heard about the “shovel-ready jobs” and seen signs along the highway touting the use of ARRA funds for

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107 Ibid.

transportation improvements.

Other programs receiving stimulus dollars may not be as well-known. Two of them were designed to increase national broadband deployment. The RUS received $2.5 billion in stimulus funding for its Broadband Initiatives Program (BIP), and the National Telecommunications and Information Agency (NTIA) received $4.7 billion for its Broadband Technology Opportunity Program (BTOP). From FY 2002 to FY 2009, BIP’s funding averaged $13 million annually, and the NTIA’s Public Safety Interoperable Communications Program, the predecessor to BTOP, received $1 billion in its largest funding year, FY 2007.

An October 2009 GAO report pointed out that RUS and NTIA would “face the challenge of monitoring these projects with far fewer staff per project than were available for their legacy grant and loan programs,” and that both programs “lack[ed] funding for oversight beyond fiscal year 2010.”

On December 12, 2011, The Daily Caller reported that, as of the third quarter of 2011, projects funded through the BTOP program had a zero completion rate. Delays in implementing grant programs persisted; the recovery.gov website showed that in December 2012, of the 844 grant awards and contracts totaling $4,456,797,171 issued by the NTIA, only 26 had been completed, 192 were less than 50 percent complete, 623 were more than 50 percent complete and three had not yet started.

According to the same website, the RUS had given out 227 loans, grants and contracts under the stimulus program, totaling $1,151,246,819. From these awards, 15 projects were completed, 110 were less than 50 percent complete, 69 were more than 50 percent complete, and 33 had not yet started. All of the stimulus-funded broadband projects were given a deadline for completion of September 30, 2013.

Among the projects listed as incomplete were seven BTOP public safety network initiatives grantees that were ordered by NTIA in May 2012

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to stop their work. The NTIA had concerns that the networks being developed under these grants would not be compatible with a new FirstNet national first responder network created by the Middle Class Tax Relief and Job Creation Act of 2012. On February 12, 2013, the FirstNet board members voted to allow these grant recipients to re-engage in building their public safety networks.

According to the USDA, the RUS has obligated $3.5 billion in funding for the BIP program for 320 projects in 44 states and territories. Despite the program’s widespread funding reach, the money is not necessarily being spent wisely by grant recipients.

For example, the West Virginia Statewide Broadband Infrastructure Project received $126 million to expand broadband access to schools, hospitals, libraries, and community centers in underserved or unserved areas. The state spent $24 million of that money to purchase high capacity routers, each of which are capable of providing up to 1,000 connections at a time. These routers cost $22,600 each, and were distributed to some larger institutions for which they were built, as well as to small community centers and libraries that have between two and six computer connections. According to a May 8, 2012, editorial in *The Charleston Gazette*, it was later determined that, because many West Virginia public facilities already have broadband routers, 366 of the devices worth $8.27 million in taxpayer funding had not been installed and were sitting in warehouses collecting dust.

On September 14, 2012, the GAO issued a report that reviewed the data provided by RUS and NTIA on broadband spending under the

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The GAO found that while NTIA collected data on its broadband projects and was able to project a 76 percent completion rate, RUS was not so diligent. The RUS’ failure to collect data in a timely manner led to its inability to provide a reliable measure for deployment of fiber miles and wireless access points. GAO was informed by RUS officials in June 2012 that they had begun tracking the number of fiber miles and wireless access points deployed by BIP projects, but were uncertain of the quality of the data collected.

In March 2013, the USDA IG reported that “RUS funded BIP projects that sometimes overlapped preexisting RUS-subsidized providers and approved 10 projects, totaling over $91 million, even though the proposed projects would not be completed within the 3-year timeframe RUS established and published.” The IG “also found that the agency could have implemented the program so that it would have focused more exclusively on rural residents who do not already have access to broadband.”

On February 7, 2013, KUSA-Channel 9 News in Denver, Colorado, reported on the administration of a BTOP grant in which money was used to build new fiber optic lines alongside those already in existence, directly competing with local telecommunications and broadband providers. According to the report, the grant recipient, Eagle-Net, received a BTOP award of $100.6 million to bring high speed broadband services to all the schools, libraries and anchor institutions in underserved areas of Colorado.

The Eagle-Net project summary on recovery.gov states in part, “The project addresses the lack of affordable high-capacity broadband access at many rural and underserved school districts and educational institutions, many of which currently rely on outdated copper-based telecommunications facilities.” However, KUSA highlighted Eagle-Net’s use of grant funding to build these lines to locations already being served by fiber optic

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118 Ibid.


communication providers, such as a school in Agate, Colorado, which serves 11 students and has three different fiber optic lines to the school, including Eagle-Net.

On February 11, 2013, The New York Times reported that the earliest fiber optic connection turned on by Eagle-Net was in a Denver, Colorado, suburb which already had fiber optic service running at 300 Mbps. In September 2012, several members of the Colorado congressional delegation expressed their concern about Eagle-Net being involved in overbuild issues relating to their work in extending fiber optic lines to communities around the state. On December 7, 2012, NTIA suspended Eagle-Net’s construction to resolve environmental issues that had been raised. This suspension was lifted on April 29, 2013.

On February 20, 2013, the House Energy and Commerce Subcommittee on Communications and Technology held a hearing on the status of broadband spending under the stimulus. Witnesses stated that much of the stimulus broadband funding has produced overbuild leading to direct competition with incumbent private sector providers of broadband services.

While Connect North Georgia President Bruce Abraham lauded the economic benefits to northern Georgia stemming from the $33 million broadband stimulus loan it received, Vermont State President of FairPoint Communications Michael K. Smith described millions in federal dollars being used for overbuild projects throughout New England that “create a publicly financed competitor aimed at putting FairPoint and other private providers at


a competitive disadvantage.” In addition, Colorado Telecommunications Association Executive Vice President Peter Kirchhof raised concerns about the overbuild experienced in the Eastern Plains, South Central Colorado, and the Denver Metropolitan area by Eagle-Net Alliance using broadband stimulus funding. Kirchhof called upon the committee to “strongly encourage Eagle-Net to negotiate in good faith with local providers to use existing local facilities and to avoid duplication of existing infrastructure. Eagle-Net should redeploy remaining funds to areas of the state (Western Slope) where it is badly needed.”

Increased broadband connectivity is important, and many private sector companies have already stepped up and improved service for both wireline and wireless customers through their own capital investments. However, when taxpayer funds are used through either grant or loan programs, there should be increased accountability for where and how tax dollars are being spent in order to avoid wasteful spending and overbuild of existing infrastructure. Agency program administrators in charge of evaluating and processing federal grant requests should maintain and monitor the spending and progress of each project from start to finish through databases with measurable metrics in order to ensure the best use of taxpayer funds.


128 Ibid.