Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	**)**	
	)	
A National Broadband Plan for our Future	**)**	GN Docket No. 09-51

Comments of the Competitive Enterprise Institute

Wayne Crews, Vice President for Policy
Ryan Radia, Information Policy Analyst
John O'Connor, Research Associate
Competitive Enterprise Institute
1899 L Street NW, 12th Floor
Washington, DC 20036
202-331-1010

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Introduction

The Commission's record of alleged "regulatory restraint" toward the telecommunications sector over the past 13 years has come under fire by a number of comments filed in the matter of "A National Broadband Plan for Our Future." It is alleged that the Commission's actions have produced market outcomes that are contrary to the "public interest." These comments urge the Commission to impose myriad new regulations that are supposedly needed to promote "competition" and protect the "plight of Consumers." A more interventionist regulatory regime, however, will only hurt consumers and discourage infrastructure wealth creation.

Critics of the status-quo broadband market cite a number of studies, surveys, and reports which show that a sizable minority of Americans cannot get terrestrial broadband access at a reasonable price and that Americans who can get affordable residential broadband in some cases have only one option. Advocates of a more interventionist regulatory approach take it as a foregone conclusion that if affordable broadband is not universally abundant and Americans do not have six or more choices for broadband access, then the broadband market must be failing and consumers are in need of saving by government regulators through such rules as open access mandates, line sharing requirements, and price controls.

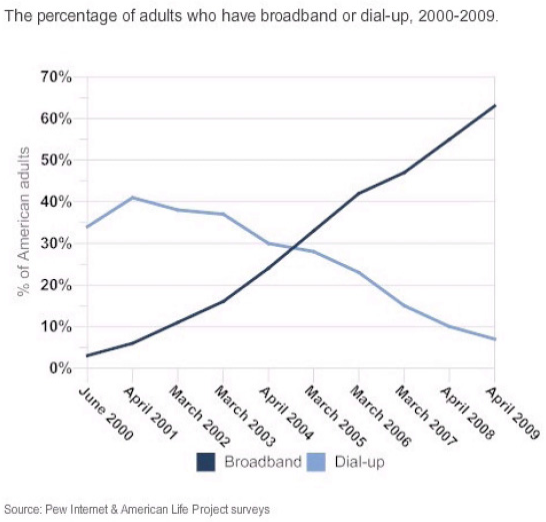
These commenters, however, overlook the possibility that factors other than market failure may be responsible for any unnatural deficiencies that plague the U.S. broadband marketplace. In fact, the alleged underperformance of the U.S. broadband marketplace is rooted not in the *failure of the market* but in the *failure of government.* Thus, while it is true that, as Free Press argues in its comments, government has failed broadband consumers, this is not because government has been too averse to regulate and legislate. In fact, the current broadband marketplace is *anything but free.* Distortions stemming from ill-conceived regulations at all levels of government stifle the broadband market. The Commission can best serve the public interest in broadband by relaxing outmoded regulations that distort efficient market outcomes.

International Comparisons and the State of American Broadband

Advocates of regulating broadband have called America's broadband market "stagnant" and "withered." Most of these claims are based on international comparisons, particularly rankings. For instance, the OECD currently ranks the US 15th among its member nations in broadband connections per capita. More broadly, the International Telecommunications Union ranks the US 22nd in the world by the same metric. Critics also cite rankings of the price and speed of American broadband, in which the OECD ranks the US 22nd and 14th, respectively. Advocates of reregulation claim that these allegedly "dismal" scores demonstrate the failure of American broadband policy.[1]

[1] We will cite the initial comments submitted by Free Press to this inquiry as a typical example of pro-regulation advocacy in many cases: "The most obvious example of this decline is seen in the measurement of broadband penetration, or the number of per capita broadband connections. At the turn of the century, the United States was ranked fifth among the world's nations in broadband penetration, according to data from the International Telecommunications Union (ITU). By 2007, we had dropped precipitously to 22nd place, just barely ahead of isolated island nations such as Barbados and the Faroe Islands." (p 32-33)

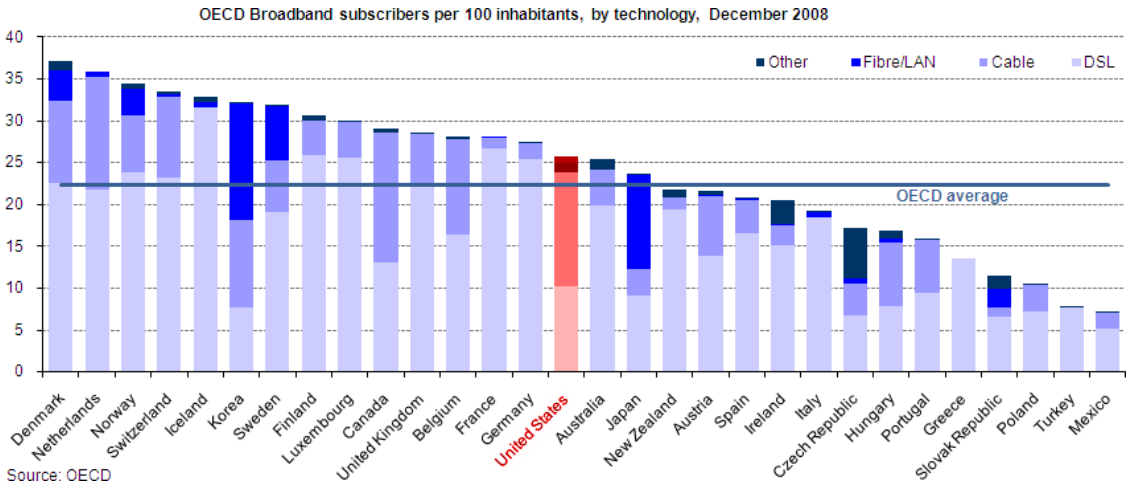
Nothing could be further from the truth. Broadband is flourishing in America. Data from the Pew report on broadband adoption speaks for itself:[2]



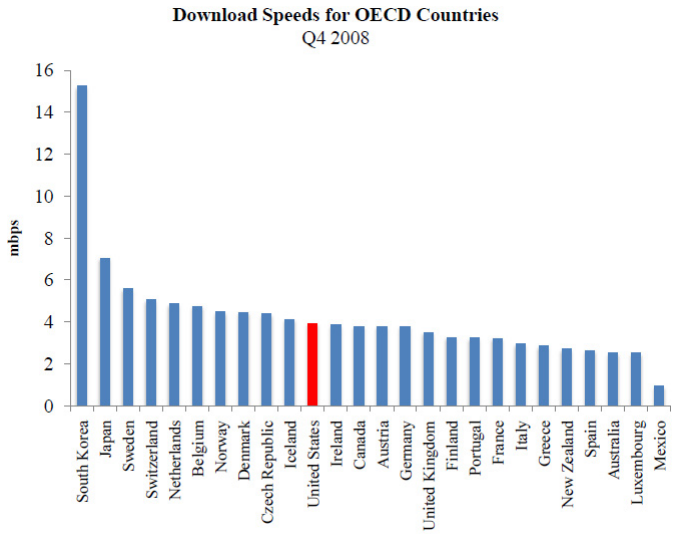
The adoption trend (at left) does not look like failure. Broadband adoption in the US has been skyrocketing for a decade. Between 2008 and 2009, adoption in the US soared from 55% to 63%. In just a few years, if broadband growth continues unabated, the market will be saturated. Critics might suggest that our growth could have been even faster, but claims of a "stagnant" market are patently absurd.

Many commenters have criticized the accuracy of OECD and other rankings. In particular, per capita metrics unduly penalize the US relative to household metrics, of the kind taken by the Pew study.[3] The more important objection, however, is that by their very nature rankings obscure the absolute differences among competitors. Critics cling to these rankings because the actual numbers behind them are so unremarkable. Here is a graph of the very same OECD data: [4]

[2] Chart from the Pew Internet & American Life Project's "Home Broadband Adoption 2009" report, p 11.
[3] Wallsten, Scott. Technology Policy Institute. "Understanding International Broadband Comparisons." 2009. p 3,19: "The right way to compare wired broadband connections across countries is to measure connections per household, not per capita. It is not possible to derive the per household measure simply by dividing the number of connections the OECD counts by the number of households because these counts combine business and residential lines in inconsistent ways across countries…In terms of wired connections per household, the U.S. probably ranks somewhere between 8th and 10th."
[4] Chart from OECD Broadband Portal, 2008. (http://www.oecd.org/sti/ict/broadband)



Even these flawed measurements show no indication of failure when we present them objectively. The US is just behind France and Germany, and slightly ahead of Australia and Japan. The very top countries have a slight lead, and the difference is only a matter of months.[5] The only way to criticize US broadband with these data is to quote the rankings alone.



Broadband speed comparisons give similar results, shown in the graph at left.[6] With the exception of South Korea, which for various reasons leads the world by more than a factor of two,[7] developed nations are all very close to one another in connection speeds. Rankings taken out of context vastly overstate the differences.

There are more problems with pricing comparisons. Plans vary widely across countries, and the average cost of bandwidth is only one relevant measurement. The US ranks in the middle

[5] Wallsten, *supra*, p 19.
[6] Chart from Wallsten, *supra*, p 7. The data are Akamai speed tests from 2008.
[7] In his 11 October 2004 Wall Street Journal article entitled "Bringing the Broadband Miracle to Europe," Thomas Hazlett argued that deregulation was the source of South Korea's success. In the interest of deemphasizing international comparisons, however, we will not expand on this argument. See Hazlett's domestic comparisons in our discussion of open access regulations below.

of the pack by that averaged metric, for instance, but our lowest prices are among the lowest in the world. South Korea on the other hand, which has one of the lowest average prices, ranks far worse in terms of lowest available price.[8]

Furthermore, speeds and prices are only an indirect measurement of the real prosperity that broadband brings. In more direct measurements, like online music or video sales, the US dominates other leading nations by impressive margins.[9] Even if our broadband infrastructure is lagging behind our peers', that has not helped them surpass the productive use we make of it.

As in many industries, US broadband is leading in some ways and lagging in others. Growth is exceedingly rapid, and the most important conclusion from international comparisons is that industrialized nations are fairly close to one another in absolute terms. At the same time, the leaders in various metrics are often those who have established subsidies,[10] and while those subsidies have produced measurable results, there is no evidence that their material benefits have been worth the cost. In fact, the usage gaps noted above suggest that they have not. Either way, the US cannot subsidize every industry that is subsidized abroad simply to keep up appearances. Claims of a broadband crisis are unfounded and can only distract from an honest cost-benefit analysis of proposed policies.

Open Access

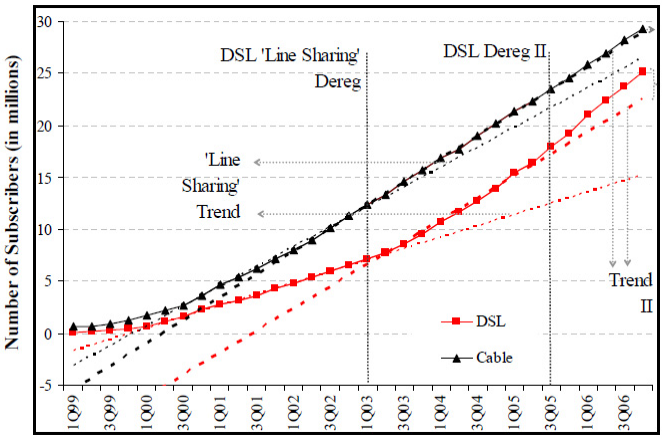
Reregulation advocates suggest that line-sharing mandates and open access rules could improve America's broadband markets, and some argue that our lack of such regulations has

[8] Wallsten, *supra*, p 13.
[9] Wallsten, *supra*, p 8-10.
[10] Atkinson, Robert. Information Technology and Innovation Foundation. "Explaining International Broadband Leadership." 2008. p 8: "A careful analysis suggests that many leading nations have effectively used financial incentives to spur broadband deployment. For example, the Swedish government aggressively used subsidies to spur broadband deployment, particularly in rural areas of the country. It allocated a total of more than $800 million. For the U.S. government to match this investment as a share of GDP, it would need to invest more than $30 billion."

been responsible for our alleged decline. This prediction is usually attributed to the claim that such regulations will drive down the price of broadband service.[11] Proponents advance international comparisons to justify that claim, but as we detailed above, these comparisons are notoriously misleading. Ascribing causal relationships to them is even more dubious.

Thomas Hazlett, former chief economist for the FCC, published an examination in 2008 of the past decade of open access regulation in the US.[12] He compared subscription growth for cable and DSL service, both in the US and in Canada. In the US, cable modem services had never had open access requirements. DSL, on the other hand, operated under various access requirements until 2003 and 2005, when the requirements were partially and then fully lifted. Cable and DSL services in Canada served as a control over this period.

What Hazlett found, shown at right,[13] comes as no surprise. At each stage of deregulation, growth in DSL subscriptions accelerated. Where before cable's lead had been widening, DSL began closing the gap in 2003 and even faster in 2005, all while prices continued to fall. Canada observed no such trend.



[11] Another example from Free Press comments: "OECD countries with line-sharing policies have DSL penetration levels nearly twice those of countries that do not require line sharing…there's a strong link between broadband penetration and price, so it is not surprising to learn that countries with line sharing and wholesale access policies also have significantly lower monthly prices for DSL service. The monthly cost of DSL service is nearly 40 percent higher in OECD countries without this policy. And this trend further applies when the value of broadband is measured. Citizens in countries with line sharing and wholesale access get more broadband bang for their buck. Consumers in countries with line-sharing pay about $14 per Mbps, while consumers in countries without line sharing pay more than double that amount." (p 79-81)

[12] Hazlett, Thomas W. "Natural Experiments in U.S. Broadband Regulation." *Review of Network Economics*, Vol. 7, Issue 4. December 2008.

[13] Chart from *ibid.*

Open access regulations cannot simply force incumbents to sell their lines; they must also specify the price at while those lines will be sold. As with any other price control, this hurts consumers and creates deadweight losses for the economy as a whole.

Advocates are convinced that open access requirements can bring the benefits of competition to single-provider markets,[14] but that is almost a contradiction in terms. There can be no competition when regulators are setting the price of the product in question, no matter how many "competitors" are selling it. The only real competition in network services is infrastructure competition, and there is no better deterrent to infrastructure competition than open access. With existing lines effectively provided by government, there is no incentive to build new capacity, especially when those new lines would be subject to the same requirements.

Advocates worry that only broadband monopolies can afford to operate in high-cost area. But if this is true—by their own admission—open access regulations will not create competing infrastructure. As with any price control, there are three possible results:

1. The regulations restrict profits, ensuring that the riskiest areas get no investment at all.
2. They do nothing to restrict profits, and instead entrench infrastructure monopolists.
3. They cap prices, but offset the loss of investment by subsidizing monopolists.

The first is what happened to DSL prior to deregulation, causing investors to flock to cable. The second describes the American telecom industry as it was for decades under the Bell monopoly.[15] Advocates are hoping for the third, even though everyone agrees that existing subsidy programs are full of waste, fraud, and abuse.

[14] Free Press comments: "It is inefficient to fund multiple infrastructures in high-cost areas, but consumers in these areas must be able to enjoy the benefits of competition…Open access is the best policy tool for creating competition in markets with high fixed costs that cannot support multiple facilities-based competitors." (p 231)

[15] Thierer,Adam. "Unnatural Monopoly: Critical Moments in the Development of the Bell System Monopoly." The Cato Journal. Vol. 13, No. 2. 1994: "The most important lesson legislators can draw from this study is that government intervention need not be explicit or massive to have serious long-term and deleterious effects on competition within an industry. In the case of telecommunications, the government's simple stipulation that rates be

The necessity of subsidies becomes the key problem with open access. Without subsidies, of course, open access itself directly harms consumers by thwarting investment. But subsidy programs by nature are hostile to duplicated infrastructure, and therefore hostile to real competition. This is both because they have a limited budget, and because, in the famous words of Alfred Kahn:[16]

> When a commission is responsible for the performance of an industry, it is under never completely escapable pressure to protect the health of the companies it regulates, to assure a desirable performance by relying on those monopolistic chosen instruments and its own controls rather than on the unplanned and unplannable forces of competition.

Hamstringing real infrastructure competition in the name of consumer welfare is incredibly misguided. If the question of broadband policy is one of redistribution—that is to say, if the purpose is to bring broadband to Americans who would have it if only they were wealthier—there are better ways to accomplish that goal without distorting broadband markets.[17] Otherwise, it can only be harmful to consumers to replace price signals with bureaucratic best guesses in the ongoing evolution of broadband.

Broadband Subsidies and the USF

Open access regulations will require subsidy programs in order to accomplish their stated goals, and advocates of reregulation have also recommended subsidies for their own sake.[18]

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artificially set to reflect certain social policy objectives was the crucial factor that led to the creation of the AT&T monopoly. Other factors, such as interconnection requirements, also illustrate how good intentions can often have disastrous results. In this case, interconnectivity provided a disincentive to built competing systems, tilting the market in AT&T's favor."

[16] Kahn, Alfred E. *The Economics of Regulation*. 1988. p 46.

[17] Namely, giving the money straight to rural consumers would accomplish the same goal while taking advantage of price signals. See our section "Broadband Subsidies and the USF" below.

[18] Free Press comments: "The FCC should implement rule-makings to transition the Universal Service Fund programs from supporting telephone service to supporting broadband. This shift—which could be conducted over a

Advocates always suggest that "waste, fraud, and abuse" in the current Universal Service Fund should be reduced, but exactly how to achieve that reduction is never specified. The Government Accountability Office described in 2008 just how wasteful the fund has become,[19] but subsidy proponents still push to extend the program to cover broadband.

Whether or not subsidy programs could be made more efficient in theory, there is every reason to expect that America's experience with future subsidies will mirror our experience with the USF. There have been no serious proposals to attack the source of the problem, and proponents of extending subsidies should not cloud their advice in dubious predictions that "things will be better this time around."

If subsidies were merely inefficient, advocates might suggest that existing inefficiencies were worth the alleged benefit. Unfortunately, the USF has been actively harmful to the adoption of broadband, and if extended it would hurt future technologies as well.[20] Currently, by subsidizing obsolete telephone services, the USF makes broadband adoption appear artificially expensive by comparison. If regulators could act with great speed and prescience, they might in theory use subsidies to accelerate the adoption of rising technologies. In practice, however, regulators are much slower than modern telecom markets, and they are far more likely to entrench an old technology beyond its optimal lifetime than to successfully pick a winner.

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ten-year period—would build a fiber optic network throughout rural America, reform the fund's administration to reduce waste, fraud and abuse, and gradually reduce the size of the fund to less than a third of its current size."

[19] GAO. "FCC Needs to Improve Performance Management and Strengthen Oversight of the High-Cost Program." 2008: "While some internal control mechanisms exist for the high-cost program, these mechanisms are limited and exhibit weaknesses that hinder FCC's ability to assess the risk of noncompliance with program rules and ensure cost-effective use of program funds. Internal control mechanisms for the program consist of (1) carrier certification that funds will be used consistent with program rules, (2) carrier audits, and (3) carrier data validation. Yet, each mechanism has weaknesses. The carrier certification process exhibits inconsistency across the states that certify carriers, carrier audits have been limited in number and reported findings, and carrier data validation focuses primarily on completeness and not accuracy. These weaknesses could contribute to excessive program expenditures."

[20] Hazlett, Thomas W. "'Universal Service' Telephone Subsidies: What Does $7 Billion Buy." 2006: "The incentives created by these subsidies encourage widespread inefficiency and block adoption of advanced technologies – such as wireless, satellite, and Internet-based services – that could provide superior voice and data links at a fraction of the cost of traditional fixed-line networks."

As we mentioned above, to the extent that broadband subsidies aim to improve the efficiency of broadband markets, they are completely without merit. There is no evidence of a market failure in broadband.[21] More often, though, subsidies are intended to achieve some level of perceived fairness or redistribution. Our point here is not to agree or disagree with this goal, but rather to note that there are much better ways to accomplish it.

Rather than building a bigger bureaucracy to oversee the distribution of subsidy funds, the FCC should simply give the money to the consumers it is designed to help. If necessary, the funds can be given in the form of a "telecom voucher," requiring that they be spent in some way the FCC can measure. Ideally, the recipients should be free to spend the money on whatever they need most, whether or not that is broadband. To put it basically, if the FCC's goal is redistribution, then the FCC should redistribute. Trying to guide market forces "by hand" is doomed to inefficiency and unintended consequences.

Network Neutrality

Neutrality and open access proposals often go hand-in-hand, because open access is a close substitute for neutrality requirements. For that reason, when the economics of open access come under fire, advocates often push neutrality as an alternative justification those policies. At the same time, and especially in the absence of open access, many groups have been pushing for explicit neutrality legislation.[22]

The biggest problem with neutrality rules is that they are just another price control. In particular, they require ISPs to offer content providers a price of zero, and to differentiate prices

[21] Scott Wallsten of the Technology Policy Institute, at an Internet Innovation Alliance panel on 17 June 2009

[22] Hazlett, *supra*, p 8: "In the policy debate open access and NN are portrayed as substitutes. Advocates for NN frequently base their argument for regulation on the elimination of DSL's open access regime…Vinton Cerf, co-developer of the IP/TCP protocol and "Chief Technology Evangelist" for Google, recommends implementation of NN due to elimination of open access."

to consumers only in certain limited ways. The disastrous consequences of price controls are all too familiar. And while neutrality may currently align with industry best practices, that fact limits the possible benefits just as much as the possible harm.

There is no disputing the benefits of neutral networks. The Internet is what it is today precisely because entrepreneurs can enter the content market at nearly zero cost. At the same time, the Internet is not a perfectly level playing field where money plays no role.

At the most basic level, customers have to pay for their quality of service. Not even the most ardent proponents of neutrality have suggested that all connections should be the same speed, on client side or server side. Nor has anyone suggested that hosts should not bear the cost of operating their servers and hiring developers. Indeed, hosts like Google and Akamai, who have spent billions of dollars on worldwide server farms, have effectively purchased a "fast lane" to all their potential customers. Proponents of neutrality legislation may argue for making the Internet more neutral, but they must admit that the Internet today is non-neutral in many essential ways.

None of this is to suggest that the Internet should be less neutral than it is, however. The truth is simply that neutrality is not the be-all and end-all of a good network. Neutral and non-neutral elements can coexist very effectively.

We have more experience with "walled garden" and "special tier" services than we often admit. AOL originally operated its own proprietary content network throughout the 1990's—the very extreme of ISP non-neutrality. Their walled garden fell by the wayside because it simply could not compete with the open Internet. Some privileged networks are more successful, however. Cable television, an entirely proprietary video service, runs on the very same cables as Internet access. Cable companies have always allocated most of their bandwidth to their

proprietary services, but far from hurting the Internet, cable has been instrumental in creating a huge portion of the infrastructure that brings IP traffic into customers' homes. And rather than charging television studios for access to local customers—as many net neutrality advocates predict—cable companies in fact pay the studios for their content.[23]

A large part of net neutrality is the fear of monopolies. Advocates worry that anticompetitive ISPs will start hurting their customers, and they want to prohibit what they see as some of the likely strategies these companies would take. Of course, it is foolish to think that we could predict every scheme, and even more to think that our laws could keep pace. More importantly, though, the US already has antitrust laws for dealing with these issues. Antitrust has plenty of its own problems,[24] but at the very least there is no need to establish entirely new laws and bureaucracies to deal with what is essentially an antitrust issue.[25]

The other part of net neutrality, however, is a surprising conservative streak. Advocates like the Internet the way it is, and they do not want to risk change, even if the end goal is supposedly "better." But there is no surer way to cripple the Internet than to hold back change. No one knows what conflicts might arise between future technologies or protocols. It is also a virtual certainty that regulation, once enacted, will expand beyond its creators' intentions. Companies like Google, for example, straddle the line between content and infrastructure. No

[23] Lee, Timothy B. Cato Institute. "The Durable Internet." 2008. p 25-26.
[24] Friedman, Milton. "The Business Community's Suicidal Impulse." Cato Policy Report, Vol. 21, No. 2, 1999: "My own views about the antitrust laws have changed greatly over time. When I started in this business, as a believer in competition, I was a great supporter of antitrust laws; I thought enforcing them was one of the few desirable things that the government could do to promote more competition. But as I watched what actually happened, I saw that, instead of promoting competition, antitrust laws tended to do exactly the opposite, because they tended, like so many government activities, to be taken over by the people they were supposed to regulate and control. And so over time I have gradually come to the conclusion that antitrust laws do far more harm than good and that we would be better off if we didn't have them at all, if we could get rid of them."
[25] Hahn, Scott. "The Economics of Net Neutrality." Economists' Voice. 2006: "We believe that mandating net neutrality would be inconsistent with sound economic management of the Internet. A mandate would erode incentives to provide broadband Internet access and could prevent new applications or services from ever being developed…Where there remains insufficient competition, the government's existing antitrust authority is a sufficient tool to police Internet providers' behavior."

one would yet advocate government enforcement of "search neutrality," but if Google's competitors got their way, it could be the next hot topic.

Special Access

A number of commenters call on the Commission to re-impose price caps on special access lines owned by incumbent LECs.[26] These caps were partially relaxed in 1999 when the Commission began to assess the state of middle mile competition in each metropolitan area and grant pricing flexibility on a case-by-case basis.[27] Several communications companies, such as Sprint Nextel Corporation, and advocacy groups, such as Free Press, argue that the Commission erred in relaxing special access price caps and should restore the regulatory regime for special access that existed prior to 1999.[28,29]

Proponents of special access price caps allege that the middle mile connectivity marketplace suffers from the excessive market concentration held by incumbent LECs.[30] But economic analyses of the state of competition in the middle mile marketplace do not justify re-imposing price caps on special access lines. George S. Ford, PhD., and Lawrence J. Spiwak, both economists with the Phoenix Center for Advanced Legal and Economic Public Policy Studies, assessed the state of the middle mile market and concluded that, despite evidence that the market

[26] Broadband Reports, *Group Takes Aim At Special Access Pricing* (June 22, 2009) http://www.dslreports.com/shownews/Group-Takes-Aim-At-Special-Access-Pricing-103072

[27] *Commission Adopts Pricing Flexibility and Other Access Charge Reforms*, FCC (August, 5, 1999) http://www.fcc.gov/Bureaus/Common_Carrier/News_Releases/1999/nrcc9054.html

[28] Fierce Wireless, *Sprint, T-Mobile ask FCC to cap special access fees* (June 23, 2009) http://www.fiercewireless.com/story/sprint-t-mobile-ask-fcc-cap-special-access-fees/2009-06-23

[29] InternetNews.com, *Critics Call on FCC to Curb AT&T, Verizon Pricing* (June 22, 2009) http://www.internetnews.com/mobility/article.php/3826316/Critics%20Call%20On%20FCC%20to%20Curb%20ATT%20Verizon%20Pricing.htm

[30] ArsTechnica, *Fighting AT&T, Verizon's chokehold on "middle mile"* (June 23, 2009) http://arstechnica.com/tech-policy/news/2009/06/fighting-att-verizons-chokehold-on-middle-mile.ars

is somewhat concentrated, it is nevertheless intensely competitive[31]. They also debunk the argument that special access is excessively profitable by showing that ARMIS data collected by the Commission is misleading and does not even remotely approximate actual economic profits.[32]

Importantly, special access lines are not the only means of transmitting data from cellular sites to the core networks. Far from it; wireless backhaul, a rapidly developing alternative to special access lines, enables providers to connect cell sites to the Internet via fixed antennae and obviates the need for special access.[33] Wireless backhaul systems transmit on microwave bands and can operate on either unlicensed spectrum or, preferably, licensed spectrum.

One firm that has invested in wireless backhaul in lieu of special access lines is Clearwire Corporation, a wireless Internet Service Provider that operates a large WiMax network. Instead of leasing special access lines to connect wireless sites to the core Internet, as is the norm for mobile broadband backhaul, Clearwire decided to connect most of its wireless sites to its core network via microwave wireless links. For instance, on July 21, 2009, Clearwire launched its mobile broadband service in Las Vegas, Nevada to over 1.7 million people.[34] Clearwire's Las Vegas network operates using a wireless backhaul solution supplied by Ciena Corporation, which also counts Sprint among its customers.[35]

Clearwire belongs to the "No Choke Points" coalition, a group of wireless companies and advocacy groups that came together in June 2009 to petition the Commission to impose stringent

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[31] G.S. Ford and L.J. Spiwak, *The Need for Better Analysis of High Capacity Services* (June 2009) pp. 20 http://www.phoenix-center.org/pcpp/PCPP35Final.pdf

[32] See Ford and Spiwak, pp. 26

[33] P. Brogan and E. Leo, *High-Capacity Services: Abundant, Affordable, and Evolving.* US Telecom (July 2009) http://www.ustelecom.org/uploadedFiles/News/News_Items/High.Capacity.Services.pdf

[34] Earth Times, *Ciena Delivering 4G Backhaul for Clearwire's CLEAR Service in Las Vegas* (July 21, 2009) http://www.earthtimes.org/articles/show/ciena-delivering-4g-backhaul-for-clearwirersquos-clear-service-in-las-vegas,898883.shtml

[35] Telephony Online, *Clearwire expanding footprint with Sprint 3G; taps Ciena for backhaul* (July 21, 2009) http://telephonyonline.com/3g4g/news/clearwire-sprint-3g-footprint-0/

regulations on the special access lines offered by incumbent LECs. The coalition claims that special access lines are a choke point and that its members "rely on high-special access lines."[36] This claim is predicated on a flawed assessment of the middle mile market that treats wireless backhaul as if it were not a viable alternative to special access. Yet even one of the coalition's members, Clearwire, has skirted so-called "choke points" by investing in wireless backhaul, rather than special access lines, for middle mile connectivity.[37] So much for "relying" on special access.

The nascent market for wireless backhaul systems and technologies is expected to experience rapid growth in coming years.[38] Incumbent LECs that lease special access lines must therefore contend not only with existing middle mile competition but also with wireless backhaul systems that *have yet to be built*.[39] If, for instance, AT&T or Verizon were to set the price of special access lines at unreasonable levels, would-be lessees would simply turn to wireless backhaul – as Clearwire already has. The highly contestable nature of the middle mile marketplace will keep prices at competitive levels. As technologies for transmitting data over the airwaves continue to improve, the viability of wireless backhaul as an alternative to special access will only increase.

Re-imposing price caps on special access lines would distort investment in wireless backhaul systems and discourage the development of new wireless backhaul technologies. Because price caps would artificially lower the price of special access, they will also cause broadband companies to redirect investment dollars away from wireless backhaul. While this

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[36] See NoChokePoints.org "About the Coalition" (Date Accessed: July 15, 2009) http://nochokepoints.org/about-coalition

[37] Fierce Telecom, *Clearwire makes Vegas bet on Ethernet wireless backhaul* (July 21, 2009) http://www.fiercetelecom.com/story/clearwire-makes-vegas-bet-ethernet-wireless-backhaul/2009-07-21

[38] Cellular News, *Wireless Backhaul to Go Next-Generation by 2012* (June 24, 2009) http://www.cellular-news.com/story/38191.php

[39] See Ford and Spiwak, pp. 21

may benefit the bottom line of some providers, at least in the short run, it will stifle the evolution of promising wireless technologies that are likely crucial to the evolution of the mobile broadband marketplace.

Explaining Deficiencies in the Broadband Marketplace

If the broadband market is generally well-functioning, then why isn't broadband universally available and affordable throughout the United States? There are two primary explanations for this state of affairs. First, consumer demand for broadband is in many areas simply not sufficient to justify the level of investment in broadband deployment needed to justify universal broadband. Second, government regulations at all levels stifle entry in to the broadband marketplace.

In most states, a provider wishing to lay new wire for the purpose of delivering triple-play services (voice, video, and data) to residential communities must first obtain approval from a local franchise authority.[40] This process tends to be needlessly cumbersome and expensive; in fact, in early 2009, Verizon Communications canceled plans to deploy its FiOS fiber-optic service in Wilmington, Delaware because municipal officials threatened to withhold approval unless Verizon committed to onerous rules relating to its build-out schedule and customer service policies.[41]

Of course, providers can deliver broadband and other advanced consumer communications services without laying any wires or consulting franchise authorities. Wireless alternatives to traditional cable and telephone-based services are taking off, and in several major

[40] Katz, Diane. *Assessing the Case for Cable Franchise Reform* (July 2, 2007). http://www.freedomworks.org/uploads/20070402.pdf
[41] Verizon News Release "Verizon Withdraws Application for Cable Franchise in Wilmington" (January 30, 2009). http://newscenter.verizon.com/press-releases/verizon/2009/verizon-withdraws-application.html

U.S. cities, newly launched wireless broadband offerings are very competitive with traditional services. Network technologies slated to be launched over the next 36 months promise to continue this trend, and it is entirely conceivable that within a half decade the majority of Americans will be able to get a reasonably priced, reasonably fast wireless home broadband connection.

The evolution of these networks, however, has been stymied to a considerable extent by artificial scarcity in spectrum.[42] Most of the airwaves are allocated for a specific use, ordained by the Commission, and only a relatively small percentage of the entire usable spectrum is actually available for use in delivering services like broadband access.

Is the U.S. broadband marketplace an abysmal failure, or is it a posterchild for the efficacy of the free market? The answer is complicated, and the reality is that American broadband deployment has been very impressive despite government policies that have produced several harmful effects. While the U.S. broadband marketplace has arguably succeeded in delivering reasonable broadband access to the overwhelming majority of Americans and has even spurred intense competition over prices and speeds throughout a large portion of populated regions, the broadband marketplace also suffers from a lack of competition in a number of populated areas that cannot be explained by economics alone.

The debate over the state of the U.S. broadband marketplace is remarkably complex, and volumes have been written to analyze and interpret the myriad studies and statistics that describe the broadband marketplace. The dispute over the performance of the U.S. broadband marketplace is certainly intellectually interesting and of great relevance to a number of policy discussions. But the Commission is not obligated to merely serve those who believe broadband

[42] Wu, Tim *OPEC 2.0*, The New York Times (July 30, 2008) http://www.nytimes.com/2008/07/30/opinion/30wu.html

to be the ultimate resource. Rather, the Commission exists to serve the public interest, and among members of the public are many people who *do not place much value* on broadband service. Were the Commission to blindly move forward with an agenda of deploying universal broadband as fast as feasibly possible without regard to the actual desires of consumers, it would be ignoring its obligations under federal statute to maximize the well-being of the nation as a whole.

Conclusion and Policy Recommendations

Broadband in the US is booming, thanks in no small part to the absence of heavy government intervention. As CEI argued in our initial comments, the FCC must consider the possibility that spending any taxpayer dollars whatsoever on broadband deployment is contrary to consumer interests.

The vast majority of new regulations proposed for broadband are simply price controls, either outright or veiled in the rhetoric of neutrality. There is no reason to believe that price controls will work better for broadband than they have in any other industry. The same is true of subsidy proposals. Wasteful and fraudulent programs are far more likely to continue in that mold than to inexplicably change course.

The best use of available broadband funds is simply to return them to the taxpayers. If the funds *must* be spent on broadband, the best use would be to distribute them to underserved customers. Ultimately, the FCC should focus on the ways in which government is currently inhibiting the adoption of broadband, particularly with regard to spectrum allocation,[43] rather than on new ways in which government can attempt to accelerate adoption.

[43] Hazlett, Thomas W. "Spectrum Tragedies." Yale Journal on Regulation. 2005. p 253.