

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
International Comparison and Consumer Survey)	
Requirements in the Broadband Data Improvement Act)	GN Docket No. 09-47
)	
A National Broadband Plan for Our Future)	GN Docket No. 09-51
)	
Inquiry Concerning the Deployment of Advanced)	
Telecommunications Capability to All Americans in a)	
Reasonable and Timely Fashion, and Possible Steps to)	GN Docket No. 09-137
Accelerate Such Deployment Pursuant to Section 706)	
Of the Telecommunications Act of 1996, as Amended)	
By the Broadband Data Improvement Act)	

COMMENTS OF COMPTTEL - NBP PUBLIC NOTICE #13

COMPTTEL, through undersigned counsel, hereby submits its comments on the broadband study conducted at the Commission’s request by Harvard University’s Berkman Center for Internet & Society (“Berkman Study”).¹ Consistent with the instructions in the Public Notice inviting comment on the study,² COMPTTEL has adhered to the organization and structure of the questions to which the Commission has requested responses.

1. *Does the study accomplish its intended purposes?*

The Commission commissioned the Berkman Center to “conduct an independent expert review of existing literature and studies about broadband deployment and usage throughout the

¹ The Berkman Center for Internet & Society at Harvard University, *Next Generation Connectivity: A review of broadband Internet transitions and policy from around the world* (October 2009 Draft).

² FCC Public Notice, “Comments Sought on Broadband Study Conducted by The Berkman Center For Internet and Society,” DA 09-2217 (rel. Oct. 14, 2009).

world.”³ The Study accomplished this purpose by reviewing measures of broadband penetration, capacity and price in various countries throughout the world, including analyses of such measures developed by the Organization for Economic Cooperation and Development (OECD) and the International Telecommunications Union (ITU). The Study also reviewed the political and economic climates of the countries and analyzed the impact that government regulation or involvement in the promotion of broadband has had on broadband penetration, capacity and price. While the reliability of OECD and ITU broadband data has frequently been criticized by U.S. incumbent carriers due to the mediocre rankings they show for the United States on all measures, the Berkman Center conducted an independent market analyses of penetration and price, and actual measurements of broadband speed and latency, to verify the accuracy of those rankings. Significantly, the Berkman Center’s independent findings generally correlated well with those of the OECD and ITU.⁴

The Berkman Center’s detailed case studies of the competition and network access policies of 14 countries include review of the broadband market participants and the actions of regulators in stimulating deployment and adoption. These case studies should prove particularly valuable in terms of “inform[ing] the FCC’s efforts in developing the National Broadband Plan.”⁵ To complement the qualitative analyses in the case studies, the Berkman Center conducted “a re-analysis and refinement of the most recent econometric work on the effects of

³ FCC News Release, “Harvard’s Berkman Center to Conduct Independent Review of Broadband Studies to Assist FCC,” July 14, 2009.

⁴ Study at 67. The Berkman Center also reviewed pricing data from GlobalComms and use and availability data from the World Economic Forum Network Readiness Index and the Waverman Connectivity Scorecard, which focus on business use and availability of broadband, rather than consumer use and availability. Significantly, the Berkman Study found that in the areas where the Readiness Index and Connectivity Scorecard cover ground similar to that covered by the OECD and ITU, the data are not inconsistent. Study at 28.

⁵ July 14, 2009 News Release.

unbundling on penetration.”⁶ The draft of the Study that the Commission released for comment is well documented, well supported and an extremely useful compilation of data describing where other countries are in terms of broadband deployment and availability and what they have done to promote the availability and use of broadband.

2. *Does the study provide a complete and objective survey of the subject matter?*

The Berkman Study does indeed provide a complete and objective survey of the current status of broadband deployment and usage throughout the world. The Berkman Center is a research center affiliated with one of the finest educational institutions in the nation and there is no reason to believe that either the Center itself or any of the many individuals that contributed to the Study undertook their research or presented their findings in anything but a neutral and impartial manner. While the Berkman Center receives financial support from foundations, corporations, private donors, international organizations and government entities, its research is autonomous and independent of those funding sources. The Berkman Center describes its funding and support policies as follows:

We are committed to autonomy in our research and transparency in our relationships. These traits are essential to our continued credibility and success as an institution. Our funding model is possible due to the robust, strict, and clear policies that govern our association with donors and preserve the Berkman Center’s intellectual independence.

Our research and outreach modes depend substantially on being able to convene and engage parties that span the spectrum of viewpoints, and for our research results to have impact, our work must not only be intellectually rigorous, but also fair and impartial.

To that end, we do not accept grants that limit our ability to carry out research in the way we see fit – free of outside influence and consistent with our organizational mission and values. We do not undertake research or accept funds at the request of outside organizations unless it is consistent with our existing research agenda, mission and overall philosophy. We are transparent about our funding sources, announcing the receipt of funds through our normal communication channels.⁷

⁶ Study at 75.

⁷ See <http://cyber.law.harvard.edu/about/support>.

3. *How accurately and comprehensively does the study summarize the broadband experiences of other countries?*

From all appearances, the Study both accurately and comprehensively summarizes the broadband experiences of the countries it analyzed. The Berkman Center not only made extensive use of survey data compiled by the OECD, which has been collecting broadband data for ten years, it also conducted additional new research and independently tested existing measurements of penetration and price using market analysis data and actual measurements of speed.⁸ COMPTTEL agrees with the Berkman Center that the “combination of independent measurement or analysis with reanalysis of OECD data” provides confidence in the results, especially because the Study’s findings and observations correlate well with other measures of international broadband benchmarks.⁹

The Study was particularly thorough with regard to its analysis of the unbundling policies of the 14 countries for which it performed case studies. In what it characterizes as “the most surprising finding” in its analysis, the Berkman center determined that

open access policies contributed to the success of many of the highest performers during the first broadband transition, and as a result are now at the core of future planning processes in Europe and Japan. Contrary to perceptions in the United States, there is extensive evidence to support the position, *adopted almost universally by other advanced economies*, that open access policies, where undertaken with serious regulatory engagement, contributed to broadband penetration, capacity and affordability in the first generation of broadband.¹⁰

The accuracy and comprehensiveness of the Study is buttressed by the discussion of and response to the criticisms of certain benchmarks used to rank countries on broadband performance. For example, the Study identifies and addresses the primary objections to the

⁸ Study at 27.

⁹ *Id.*

¹⁰ *Id.* at 75 (emphasis added).

OECD's use of penetration per 100 inhabitants, rather than penetration per household, to rank countries internationally.¹¹ Critics of this approach have complained that it penalizes countries with larger households, such as the U.S., and that high speed facilities are harder to deploy in more sparsely populated countries like the U.S. The Study tested these criticisms by comparing penetration per household against penetration per 100 inhabitants and by comparing speed data from 55 OECD cities and penetration data based on population density. None of these adjusted measures significantly affected the broadband ranking of the U.S. in the international arena,¹² thereby undercutting the validity of the criticisms.

4. *How much weight should the Commission give to this study as it develops a National Broadband Plan?*

COMPTTEL submits that the Commission should give significant weight to the Berkman Study as it develops the National Broadband Plan. In formulating the Plan, Congress has charged the Commission with presenting an “analysis of the most effective and efficient mechanisms for ensuring broadband access by all people of the United States [and] a detailed strategy for achieving affordability of such service and maximum utilization of broadband infrastructure and service by the public.”¹³ The Berkman Study provides the Commission with a roadmap of what mechanisms and strategies have and have not worked in other countries to bring broadband to the people, to encourage its use and to keep rates affordable. In particular, the Berkman Study identified which countries have been most successful in advancing

¹¹ Study at 31-38.

¹² Study at 32, 36.

¹³ American Recovery and Reinvestment Act, Pub.L.No. 111-5, Section 6001(k)(2)(A) and(B).

deployment and use of broadband services and then analyzed their regulatory practices and policies to determine which practices and policies have contributed to their broadband success.¹⁴

A number of the Study's core findings are directly relevant to the policy debates regarding promotion of the availability and affordability of broadband service that have been raging in the United States for years. As the Study notes, Congress enacted unbundling/open access legislation in 1996. Beginning five years later, however, the Commission, in a series of decisions, started dismantling the unbundling/open access regime for broadband services.¹⁵ In its last Section 706 Report, the Commission listed some of the deregulatory steps it has undertaken to "promote broadband deployment."¹⁶ Among the actions it listed were (1) relieving incumbent carriers from their Section 251 obligation to offer fiber to the curb (FTTC) and fiber to the home (FTTH) loops on an unbundled basis; (2) relieving incumbent carriers from the Section 251 obligation to offer the packetized functionality of hybrid loops on an unbundled basis; (3) relieving incumbent carriers from the Section 251 obligation to offer packetized switching on an unbundled basis; (4) forbearing from enforcing the incumbent carriers' Section 271 obligations to offer broadband elements on an unbundled basis, including FTTC and FTTH loops, the packetized functionality of hybrid loops and packetized switching; and (5) classifying

¹⁴ The "core purpose throughout has been to identify which countries are stronger and which are weaker, along several dimensions of each of the three major attributes: penetration, capacity, and price." Study at 67. "Using the insights gained from the benchmarking exercise," the Report was able to "interpret the practices and policies adopted by any given country in light of whether we understand that country to be a better or worse performer, either on a given attribute, or in the aggregate." *Id.*

¹⁵ See Berkman Study at 11.

¹⁶ *In the Matter of Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and timely Fashion, and Possible Steps To Accelerate Such Deployment Pursuant To Section 706 of the Telecommunications Act of 1996*, GN Docket No. 07-45, Fifth Report, FCC 08-88 (rel. June 12, 2008) ("2008 Section 706 Report").

facilities-based broadband Internet access service as an information service, relieving incumbent carriers from the obligation to offer the wireline transmission component of such service as a stand alone telecommunications service and declining to apply the *Computer Inquiry* requirements to broadband Internet access services.¹⁷ In addition, the Commission has relieved Verizon from the obligation to comply with Title II and the *Computer Inquiry* requirements with respect to its broadband services by failing to timely act on a forbearance request¹⁸ and has relieved AT&T and Qwest from dominant carrier and *Computer Inquiry* regulation of their non-TDM-based packet-switched broadband services and non-TDM-based optical broadband services.¹⁹ Not surprisingly, the Commission's deregulatory actions have coincided with a drop in the U.S.'s international broadband penetration ranking from fourth to fifteenth.²⁰

In contrast to the affirmative actions the Commission has taken to free incumbent carriers of any unbundling/open access obligations for broadband network elements and services, the Study found that a common characteristic of the countries that score well on the broadband measures is that they have undertaken to promote and foster competition by lowering entry

¹⁷ *Id.* at ¶¶39-53.

¹⁸ FCC News Release, *Verizon Telephone Companies Petition for Forbearance From Title II and Computer Inquiry Rules With Respect To Their Broadband Services Is Granted By Operation Of Law*, WC Docket No., 04-440 (rel. Mar. 20, 2006).

¹⁹ *Petition of AT&T, Inc. for Forbearance Under 47 U.S.C. §160(c) from Title II and Computer Inquiry Rules With Respect To Its Broadband Services*, WC Docket No. 06-125, Memorandum Opinion and Order (rel. Oct. 12, 2007); *Qwest Petition For Forbearance Under 47 U.S.C. §160(c) from Title II and Computer Inquiry Rules With Respect To Its Broadband Services*, WC Docket No. 06-125, Memorandum Opinion and Order, FCC 08-168 (rel. Aug. 5, 2008).

²⁰ Study at 82-83; OECD Broadband Statistics, Broadband Penetration, Historical Time Series, available at <http://www.oecd.org/sti/ict/broadband>.

barriers and requiring incumbent carriers to provide access to their networks at regulated rates.²¹

The resulting competition has led to greater deployment, greater speeds and lower prices. As the Berkman Center explained:

The theory underlying open access obligations is that entry barriers in telecommunications markets are high and deter competitive entry. By requiring incumbents to sell, at regulated rates, the most expensive, and in the case of local loop and shared access, lowest-tech elements of their networks, regulators enable competitors to invest a fraction of the total cost of setting up a competing network, focus that investment on the more technology sensitive and innovative elements of the network and compete. In this model, regulated access provides one important pathway to make telecommunications markets more competitive than they could be if they rely solely on competition among the necessarily smaller number of companies that can fully replicate each other's infrastructure.

Some form of open access regulation has at this point been adopted by every country in the OECD except the United States, Mexico and the Slovak Republic. . . . Mexico has the lowest penetration per 100, the slowest advertised and actual speeds, and the highest prices for the low speeds that are on average available there. The Slovak Republic's fixed broadband penetration is 28th or 26th of 30 countries and its residents pay the highest prices of any OECD country for medium speeds and almost highest for the high speed services available to them.²²

As noted, the U.S. has dropped from fourth to fifteenth since abandoning unbundling/open access regulation for broadband elements and services.

In determining the most effective and efficient mechanisms for ensuring access to broadband services for all people of the United States and in formulating a strategy for achieving affordability, the Commission cannot ignore the important contribution that competition, made possible through unbundling/open access at regulated rates, has made to the availability and

²¹ Study at 74.

²² *Id.* at 77-78.

affordability of broadband service in other industrialized nations throughout the world.²³

Because Congress enacted the Telecommunications Act of 1996 to facilitate the development of robust competition in all telecommunications markets, including the broadband market, a plan to restore the unbundling and open access obligations that Congress determined were necessary prerequisites to the entry of competitors, but that the Commission has removed through regulation, would be consistent with the intent of the Act. At the same time, in light of the evidence developed by the Berkman Center, it would be extremely difficult for the Commission to discount the value of competition in advancing the availability and affordability of broadband service in the National Broadband Plan it presents to Congress. This is particularly so when Congress has just recently directed the Commission to encourage deployment of advanced telecommunications capability to all Americans by utilizing, among other things, “measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investments.”²⁴

The Commission justified relieving incumbent carriers of their unbundling obligations for broadband elements by claiming that it was removing “powerful regulatory disincentives for broadband deployment by carriers seeking to provide advanced services.”²⁵ In its case studies, the Berkman Center specifically evaluated whether unbundling/open access regulatory policies deterred investment in broadband infrastructure and found that they did not. For example, NTT, the incumbent in Japan - one of the leading countries in broadband performance – has invested

²³ See also, Study at 76, Table 4.1 Core Lessons from international strategies (In the United Kingdom and New Zealand, “the two earliest instances where functional separation was introduced, it had rapid effects on competitive entry, penetration, prices, and/or speeds.”

²⁴ See Broadband Data Improvement Act, 47 U.S.C. §1302.

²⁵ See e.g., 2008 Section 706 Report at ¶40.

and built out fiber despite the early availability of unbundling for dark fiber and the government's commitment to ensuring open access to the network regardless of technology.²⁶ In addition, new entrants in Japan have invested in fiber while continuing to use leased access to DSL to provide coverage in areas where their own facilities do not yet reach.²⁷ As the Berkman Center noted, "[t]he critical insight here is that the Japanese approach sees a highly competent and intensely engaged regulator as an enabler of competition, rather than that a weak and removed regulator is what competition requires."²⁸

The Study also provides an analysis of the broadband competition spurred by unbundling and open access in Denmark, Norway, Sweden and the Netherlands. Entrepreneurs were able to successfully enter the broadband market using wholesale and unbundled elements in these countries and the regulatory obligations to which the incumbent carriers were subject did not create disincentives for them to invest in fiber or otherwise upgrade their networks.²⁹ An interesting twist on the broadband competition in these countries is that it occurs between carriers that use multiple platforms to provide service, rather than between carriers that use different platforms. "Entrants mixed-and-matched low-cost entry strategies whether upgrading cable, partnering with an electric utility, or acquiring unbundling-based broadband element."³⁰

The Commission should also give due weight to the Study's pricing analysis in formulating its strategy for achieving affordability of broadband service. The Berkman Center

²⁶ Study at 84-85, 87.

²⁷ *Id.*

²⁸ *Id.* at 86.

²⁹ *Id.* at 89-95.

³⁰ *Id.* at 95.

looked “at prices offered by the 59 companies that offer the very high speeds in the countries we review here, or if none do, the highest speeds otherwise available in the country.”³¹ What it found is that “U.S. and Canadian companies – both telephone and cable incumbents – that occupy markets that rely on intermodal competition, offer the lowest speeds at the highest prices,” while companies offering the highest speeds and the lowest prices operate in countries where there is competition from entrants relying on unbundled network elements in addition to incumbent telephone companies and cable companies.³²

5. *Are additional studies needed along the lines of the Berkman study?*

Additional studies along the lines of the Berkman Study are not needed at this time. As noted above, the Berkman study presents a complete and objective review of the broadband experiences of other industrialized countries and an insightful analysis of the regulatory policies that have contributed positively or negatively to greater broadband penetration, faster speeds and lower prices. In addition, the Commission’s International Bureau is independently collecting “information on national broadband strategies in a number of different countries; . . . community level information on broadband development and adoption and assorted demographic information in a number of different countries; . . . and pricing information from around the world.”³³ To the extent that the Commission seeks to take the broadband experiences of other countries into account in formulating its own National Broadband Plan, the Berkman Study together with the information being collected by the International Bureau should suffice to

³¹ *Id.* at 80.

³² *Id.*

³³ See Presentation of Irene Wu of the FCC’s International Bureau at the National Broadband Plan Workshop on International Lessons, August 18, 2009, Transcript at 9.

adequately inform the Commission. Moreover, it is difficult to imagine how additional studies could challenge the Berkman Center's critical finding that "[t]he experience of all of these countries has led to a wide consensus outside the US that open access policies played an important role in creating competitive broadband markets in those countries that adopted and enforced them."³⁴ In any event, with just 3 months left to produce the National Broadband Plan, there is no time for the Commission to commission another study, have the study prepared and meaningfully digest its contents before the deadline.

Respectfully submitted,

/s/

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³⁴ Study at 79-80.