

CenturyLink™

October 21, 2011

Ms. Marlene H. Dortch, Secretary  
Federal Communications Commission  
Office of the Secretary  
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## SUBMISSION FOR THE RECORD

*Re: Connect America Fund, WC Docket No. 10-90; A National Broadband Plan for Our Future, GN Docket No. 09-51; Establishing Just and Reasonable Rates for Local Exchange Carriers, WC Docket No. 07-135; High-Cost Universal Service Support, WC Docket No. 05-337; Developing an Unified Intercarrier Compensation Regime, CC Docket No. 01-92; Federal-State Joint Board on Universal Service, CC Docket No. 96-45; Lifeline and Link-Up, WC Docket No. 03-109; Universal Service Contribution Methodology, WC Docket No. 06-122; Numbering Resource Optimization, CC Docket No. 99-200; Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98; Intercarrier Compensation for ISP-Bound Traffic, CC Docket No. 99-68; IP-Enabled Services, WC Docket No. 04-36*

Dear Ms. Dortch:

CenturyLink has been a leading supporter of the Commission's efforts to reform the existing universal service and intercarrier compensation (ICC) regulatory frameworks, and it is a member of the ABC Plan coalition that proposed a groundbreaking framework to accomplish such reform. CenturyLink still believes that the ABC Plan, as originally proposed, strikes the right policy balance in enabling the desired build-out of broadband networks while also rationalizing the universal service and ICC systems. With respect to ICC, in particular, the ABC Plan forged a compromise that struck a critical policy balance. Specifically, it proposed a transition over a reasonable time period to a low but still positive uniform terminating default rate and addressed the essential need for companies to have a reasonable opportunity to recover lost ICC revenues from their customers or, as necessary, from a new explicit fund.

CenturyLink understands that the Commission may now be considering an order in this proceeding that would adopt a different reform plan. CenturyLink understands that this plan may reform ICC rates as a transition to an ultimate end state where traffic would ultimately be exchanged at a mandatory bill and keep or zero rate. CenturyLink also understands that the order may, at the same time, include dramatically reduced ICC revenue recovery mechanisms – reducing the already limited subscriber line charge increases proposed in the ABC Plan and the availability of a backstop explicit recovery fund mechanism as well. These changes would destroy the critical policy balance forged by the ABC Plan and would render the proposed ICC reform subject to legal challenge. As CenturyLink has stated in its previous filings in this proceeding, the Commission's authority to adopt ICC rate reform is not unbounded and the Commission must remain cognizant of potential limitations to its legal authority with respect to any ICC rate reform - particularly with respect to any bill and keep reform proposal and the

adequacy of the recovery mechanism included in any reform.<sup>1</sup> The Commission's proposed ICC reform plan would not satisfy applicable statutory and constitutional requirements. As is discussed below, the Commission must also be cognizant of applicable legal requirements and potential limits on its authority in any action it takes to reform its universal service framework.

Before addressing those specific issues, CenturyLink generally reiterates a point previously made clear in connection with the filing of the ABC Plan – that the positions advocated by the ABC Plan coalition do not alter CenturyLink's prior advocacy or constrain its future advocacy regarding the issues presented by this proceeding. Thus, the coalition advocacy does not constitute a waiver of any of the legal rights of CenturyLink in connection with this proceeding. CenturyLink reserves all rights and remedies, including but not limited to all rights and remedies regarding the Commission's authority and jurisdiction relating to intercarrier compensation and universal service reform.

### *Inter-carrier Compensation*

There are multiple potential legal defects with the proposed bill and keep end state. To begin with, a mandatory bill and keep or zero rate would not satisfy the pricing standards set forth in section 252(d)(2)(A)(i)-(ii) (specifying that rates for reciprocal compensation must “provide for the mutual and reciprocal recovery by each carrier of costs associated with the transport and termination on each carrier's network facilities of calls that originate on the network facilities of the other carrier,” and must reflect “a reasonable approximation of the additional costs of terminating such calls”).<sup>2</sup> The statutory “[r]ules of construction” set forth in section 252(d)(2)(B) state that this language should not be construed “to preclude arrangements that afford the mutual recovery of costs through the offsetting of reciprocal obligations, including arrangements that waive mutual recovery (such as bill and keep arrangements).”<sup>3</sup> This language conceivably leaves open the possibility that certain types of bill and keep arrangements may satisfy the section 252 pricing standards. But, this language appears to permit only voluntary agreements by carriers to mutually “waive” their right for reciprocal compensation – in other words, it appears to prohibit any mandatory bill and keep arrangements of any kind. Indeed, the very fact that a savings clause is required for voluntary bill and keep arrangements means that such arrangements would violate the pricing standards otherwise, which strongly suggests that bill and keep arrangements cannot be imposed without mutual consent.

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<sup>1</sup> See e.g., Comments of CenturyLink, WC Docket Nos. 10-90, et al., filed April 18, 2011 at 68-71; Reply Comments of CenturyLink, WC Docket Nos. 10-90, et al., filed May 23, 2011 at 36 and n. 87 (“Numerous parties discuss these potential limits in their initial comments. See, e.g., CompTel at 33-34 (argument regarding legal limitations on Commission's ability to impose bill and keep reform plan, particularly in circumstances where traffic may be out of balance); Cbeyond, et al., at 12-15 (same, regarding bill and keep and \$0.0007 plans); Core at 8-11 (same); Earthlink at 14 (argument regarding absence of evidence in record that termination of traffic over IP networks entails no usage-sensitive costs).”).

<sup>2</sup> 47 U.S.C. § 252(d)(2)(A)(i)-(ii).

<sup>3</sup> 47 U.S.C. § 252(d)(2)(B)(i).

Alternatively, this language could permit mandatory bill and keep arrangements only where there is a balance of traffic – *i.e.*, where it can be argued that bill and keep is assured to accomplish “an offsetting of reciprocal obligations.” This standard would likely not support a broader mandatory bill and keep or zero rate reform plan as is apparently envisioned in the draft order. Indeed, it was because of these concerns that the Commission found in the *Local Competition Order* that section 252(d)(2) only permitted it to mandate bill and keep in instances where traffic was in balance.<sup>4</sup> The Commission also recognized in the *Local Competition Order*:

In general, we find that carriers incur costs in terminating traffic that are not *de minimis*, and consequently, bill-and-keep arrangements that lack any provisions for compensation do not provide for recovery of costs. In addition, as long as the cost of terminating traffic is positive, bill-and-keep arrangements are not economically efficient because they distort carriers’ incentives, encouraging them to overuse competing carriers’ termination facilities by seeking customers that primarily originate traffic.<sup>5</sup>

The Commission, in responding to arguments that a mandatory bill and keep arrangement would be confiscatory and amount to a violation of the taking clause of the Fifth Amendment, found only that the narrow subset of bill and keep arrangements of the type it approved (*i.e.*, where there is balanced traffic) would not constitute a taking.<sup>6</sup> By implication then, broader mandatory bill and keep reforms would be subject to challenge under the Fifth Amendment. The record here does not support a finding that the cost of terminating traffic is not positive. Nor does it otherwise support a Commission reversal of these prior rulings and an imposition of a mandatory bill and keep ICC regime in instances other than where there is a balance of traffic. A mandatory bill and keep reform is also rendered legally infirm if not accompanied with adequate attendance to the necessary details regarding transport obligations and other issues effecting the relative balance of financial responsibility in such a reform. Indeed, the record here is replete with evidence demonstrating the legal inadequacies of a mandatory bill and keep reform plan.<sup>7</sup>

For these same reasons, a mandatory bill and keep reform plan could not satisfy the Commission’s section 201 just and reasonable standard. It is sometime suggested that support for mandatory bill and keep or a zero default rate can be found in the fact that market-based agreements for certain services – for example, Internet peering arrangements – can contain bill and keep terms.<sup>8</sup> But, those contracts also typically contain language that conditions bill and keep treatment on assumptions about balance of traffic. Indeed, there is no evidence in the record of such contracts being reached in the market without similar terms. In any event, the fact

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<sup>4</sup> *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act and Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, First Report and Order, 11 FCC Rcd 15499, 16055 ¶ 1112 (1996) (*Local Competition Order*) (subsequent history omitted) and 47 C.F.R. § 51.701, *et seq.*

<sup>5</sup> *Local Competition Order*, 11 FCC Rcd at 16055 ¶ 1112.

<sup>6</sup> *Id.* at 16056-57 ¶ 1116.

<sup>7</sup> See *e.g.*, comments cited in n. 1, *supra*.

<sup>8</sup> See *e.g.* *In the Matter of Developing a Unified Inter-carrier Compensation Regime*, Notice of Proposed Rulemaking, 16 FCC Rcd 9610, 9627 ¶ 43 (2001).

that there are voluntary arrangements in some circumstances can hardly be said to prove that they are acceptable in all circumstances.

The reduced recovery mechanism aspects of the Commission's proposed order on ICC also would be subject to legal challenge. CenturyLink is at a disadvantage because the precise details of the Commission's proposed recovery mechanism are not yet a matter of public record. Based on reports, it appears that the ICC revenue recovery mechanism contained in the proposed order: (a) may permit carriers to increase end user charges in order to make up for lost ICC revenues through what the order refers to as an access recovery charge (ARC); and (b) may provide carriers access to an explicit fund mechanism. But, the Commission's order also appears to dramatically narrow the recovery mechanism to a point where it would run afoul of applicable statutory and constitutional requirements.

Because the details of the proposal are not yet known, the parties to this proceeding must, at a minimum, be given an opportunity, once the details of these aspects of the proposed reform are made public and before an order becomes final, to supplement the record. Based on industry briefings and other reports, it appears that the plan may include at least the following: (a) it limits residential ARCs to an increase of \$0.50 per year and limits business ARCs to an increase of \$1.00 per year; (b) it limits residential ARCs to an overall cap of \$2.50 and limits business ARCs to an overall cap of \$5.00; (c) it limits ARCs and any backstop access to a recovery fund collectively to 90% of a carrier's ICC revenue losses resulting from the plan; and (d) it could further reduce a carrier's ability to recover lost ICC revenue by basing the calculations on projections of future demand rather than using actual results, which could vary in ways that reduce replacement opportunities. The proposed order also apparently includes a benchmark that further limits ARCs to the extent they, together with the local rates and related charges, exceed a total benchmark of \$30.<sup>9</sup> Finally, some reports indicate that the proposed order may call for ARCs to sunset after a defined period.

In addition to these potential built-in restrictions to a carrier's ability to recover lost ICC revenue, the record is replete with evidence of the very real limitations carriers face in seeking to implement end user charge increases in many areas due to market pressures.<sup>10</sup> In fact, as the ABC Plan signatories demonstrated in their comments, "losses to wireless carriers, VoIP providers, and other competitors have taken a severe toll on ILECs' standing in the overall marketplace for voice services: 'Between 2003 and 2010, telcos' voice market share went from 80% to 40%.'"<sup>11</sup> In addition, based on an analysis of the Commission's own ARMIS data,

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<sup>9</sup> While likely not objectionable on its own, CenturyLink mentions the benchmark as another relevant limitation to a carrier's ability to recover lost ICC revenues.

<sup>10</sup> See, e.g., "On the Road to More Efficient Pricing of Telecommunications Services: A Look at the Evidence", George S. Ford, PhD (Oct. 5, 2011), at 4 (*Phoenix Center Perspective 11-06*) (copy attached as Appendix A); Attachment 4, Professor Hausman Consumer Benefits Paper, at 11-15 (ABC Plan Hausman Paper), as appended to ABC Plan, Letter from Steve Davis, CenturyLink, *et al.* to Marlene H. Dortch, FCC, WC Docket Nos. 10-90, *et al.* (July 29, 2011); Letter from Steve Davis, CenturyLink, *et al.* to Julius Genachowski, *et al.*, FCC, WC Docket Nos. 10-90, *et al.*, (Oct. 10, 2011), at 3-8 of 9.

<sup>11</sup> Timothy Horan *et al.*, Oppenheimer & Co., *Communications Services Poised to Outperform*, at 6 (July 6, 2011). Other analysts cite similar figures, noting that, today, of "112 million occupied US households, only 60% have a wireline voice connection," and within that

Phoenix Center found that “based on the historical data, for every \$1 reduction in usage revenues per-line, fixed-charge revenues increase by only \$0.40.”<sup>12</sup> Therefore, the Commission knows that providing dollar-for-dollar end user opportunities does not provide a reasonable opportunity to recover the lost access revenue. To layer on additional reductions as the Commission appears to be contemplating would be arbitrary and capricious. There is also considerable evidence that any potential increases to business customer charges are likely to be ephemeral as market pressures prevent increases to such charges, which are already considerably higher than residential rates.<sup>13</sup>

The inclusion of such limitations individually and collectively in the proposed recovery mechanism for lost ICC revenue ensures that terminating carrier will have a very restricted and plainly inadequate ability to recover lost ICC revenues under the Commission’s approach. The adoption of a recovery mechanism with these characteristics in a reform plan that would also simultaneously dramatically reduce or eliminate the ICC revenues upon which carriers have relied for decades would be arbitrary and capricious, would violate applicable statutory requirements including the just and reasonable rate requirement and specific pricing standards of section 252(d)(2) (e.g.) and the “just and reasonable” standard of section 201, and would create confiscatory rates in violation of the Fifth Amendment. These conclusions are particularly true in the context of a mandatory bill and keep plan. Assuming *arguendo* that a mandatory bill and keep plan would be permissible despite the legal infirmities discussed above, part of the rationale for such a plan would have to be that, while the terminating carrier recovers no costs associated with terminating calls handed to it from another carrier, it can recover any such costs from its own end users. But, the Commission’s proposed plan, through limitations such as those above, would simultaneously prevent a carrier from recovering costs from end users.

As CenturyLink stated in its prior filings in this docket, any ICC rate reform plan must include an adequate recovery mechanism both to satisfy applicable statutory requirements and the legal requirement arising out of the Fifth Amendment that carriers have a reasonable opportunity to recover their costs.<sup>14</sup> With regard to the latter, some observers have suggested that this determination is to be made based upon a view of all the regulated services of a carrier within the Commission’s jurisdiction. CenturyLink maintains that the determination is to be made based upon the cost of the services at issue in a given regulatory activity – here the services associated with the access and reciprocal compensation rates to be reduced.<sup>15</sup> Regardless of which test is applied, the Commission’s proposed reform would fail this test because of the failure to adequately attend to the requirement that lost ICC revenues be replaced.

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category, “[t]elco voice declined to around 47.7 million wireline subs, or 43% of all US households.” Jason Bazinet et al., Citi Investment Research & Analysis, *Video, Data, & Voice Distribution*, at 6 & Figure 8 (May 13, 2011) (emphasis added).

<sup>12</sup> Phoenix Center Perspective 11-06, at 3.

<sup>13</sup> See, e.g., ABC Plan Hausman Paper at 5-10.

<sup>14</sup> See *Duquesne Light Co. v. Barasch*, 488 U.S. 299, 307-09 (1989).

<sup>15</sup> *Brooks-Scanlon Co. v. Railroad Commission*, 251 U.S. 396, 399 (1920) (Holmes, J.).

## *Universal Service*

With respect to reform of its universal service mechanisms to support access to telecommunications services, advanced telecommunications, and information services in high-cost areas throughout the country, first and foremost, the Commission must accomplish those reforms in accord with its legal authority under section 254 of the Act. The Commission can look to section 706(b) of the 1996 Act<sup>16</sup> to augment its authority under section 254 to create universal service support mechanisms to promote deployment of networks enabling advanced telecommunications capability. But, section 706(b) is not alone a sufficient source of authority for those endeavors.<sup>17</sup>

Any mechanism to support the preservation and advancement of universal broadband access to Internet service must be in accord with the principles of section 254(b) and the framework for universal service support set out in sections 254 and 214 of the Act. As such, the Commission will need to ensure that any support provided is explicit and sufficient to accomplish the preservation and advancement of broadband access to Internet service in high-cost areas. It also must ensure that the mechanisms enabling support are specific, predictable and sufficient. Additionally, the Commission will need to ensure that the mechanisms established promote—and do not inhibit—reasonably comparable broadband Internet access services and rates for those services between urban and rural areas.

The Commission must endeavor to preserve and advance universal broadband access to Internet services by explicitly and sufficiently supporting deployment and maintenance of the infrastructure necessary to provide those services. Mechanisms that create unfunded mandates or rely on implicit subsidies will not satisfy these obligations and will expose those mechanisms to legal challenge. This could include any approach that eliminated existing high-cost universal service support without eliminating the corresponding eligible telecommunications carrier service obligations along with state and federal carrier of last resort obligations.

Further, any reform of the high-cost universal service support mechanisms, including eliminating existing high-cost support, must preserve access to services in rural, insular and high-cost areas that are reasonably comparable to similar services available in urban areas. Finally, any regulatory forbearance from specific universal service provisions in order to further universal broadband access must still be consistent with the universal service policies of section

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<sup>16</sup> 47 U.S.C. § 1302(b).

<sup>17</sup> Nor is section 706(a) an independent basis of authority to use universal service mechanisms to support broadband deployment. Instead, the Commission's authority under section 706 to promote broadband deployment must be exercised in harmony with its authority to promote universal access to services under section 254.

254(b). Otherwise, the Congressional purposes behind both universal service and regulatory forbearance will be thwarted.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeffrey S Lanning". The signature is written in a cursive style with a prominent loop at the end of the last name.

Jeffrey S Lanning

## P E R S P E C T I V E S

PHOENIX CENTER FOR ADVANCED LEGAL &amp; ECONOMIC PUBLIC POLICY STUDIES

## On the Road to More Efficient Pricing of Telecommunications Services: A Look at the Evidence

George S. Ford, PhD\*

October 5, 2011

### Introduction

For decades, economists have encouraged regulators to implement more efficient telephone pricing policies in order to eliminate the pervasive cross-subsidies from usage-based services to basic connections.<sup>1</sup> Slowly, and reluctantly, regulators have moved in this direction. The most recent significant reform was implemented by the Federal Communications Commission ("FCC") in its *CALLS Order* in 2000,<sup>2</sup> which reduced usage-based access rates and raised caps on the Subscriber Line Charge ("SLC"), a fixed, monthly fee paid by local phone company subscribers for basic connections.<sup>3</sup> At present, the Commission is evaluating additional reform of this type labeled the "America's Broadband Connectivity Plan" (the "ABC Plan"), which proposes, among other things, to cut per minute access rates to near zero (\$0.0007 per minute) and raise the cap on the SLC over five-years,<sup>4</sup> satisfying the *National Broadband Plan's* recommendation for "long-term intercarrier compensation (ICC) reform that creates a glide path to eliminate per-minute charges while providing carriers an opportunity for adequate cost recovery."<sup>5</sup>

Given the movement to more efficient pricing over the past 30 years, it should be possible to evaluate the effect on consumers from such changes by looking at historical data.<sup>6</sup> I do so here. Using data collected by the FCC, I study access revenues received by large, traditional

telephone carriers over the period 1990 through 2007. My analysis suggests that the migration to more efficient pricing has substantially benefitted consumers—the average local phone consumer pays \$8 less in interstate monthly access charges today, when pricing is more efficient, than in the past when the pricing system was riddled with cross-subsidies. Moreover, for the average phone company customer, the data indicate that for every \$1 reduction in carrier revenues from usage fees, revenues from SLCs increase only \$0.40. Thus, the expected elimination of \$2 in monthly per-line usage-based access revenues is expected to increase SLC revenues only by about \$0.80 on a per-line, per-month basis, well below the proposed cap increase of \$3.75 per line month.

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*Based on historical evidence, each customer could pay about \$14 less per year in access charges if the ABC Plan's proposed reductions in access rates are implemented [or] \$1.4 billion per year in the aggregate*

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These data suggest that the continued migration to more efficient pricing of telecommunications services, as proposed by the ABC Plan, will likely lead to lower out-of-pocket expenses to

the consumers for such services. Based on historical evidence, each customer could pay about \$14 less per year in access charges if the ABC Plan's proposed reductions in access rates are implemented. Multiplied by the total number of access lines provided by the FCC's most current data, the ABC Plan could save American consumers approximately \$1.4 billion per year in the aggregate on traditional voice services provided by the nation's largest phone companies.

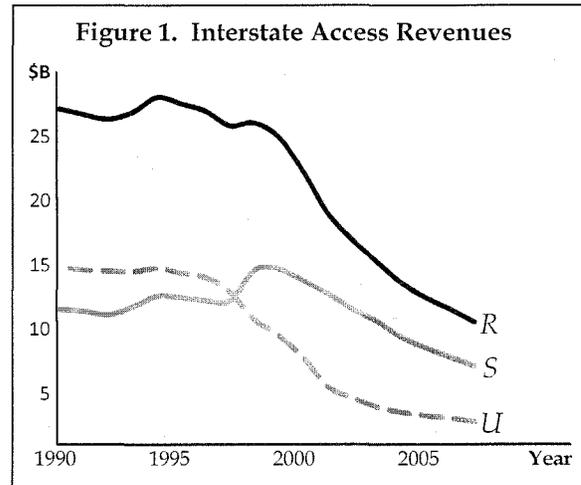
I note that it is not possible to say *exactly* what the outcomes of the ABC Plan will be; price setting in partially-regulated telecommunications markets is difficult to model and the Plan includes many other features such a monthly maximum prices for telephone service that check SLC increases.<sup>7</sup> However, a review of historical data within which similar reforms have occurred suggests reforming access charges in the way proposed by the ABC Plan will be beneficial to the average customer.

**Analysis**

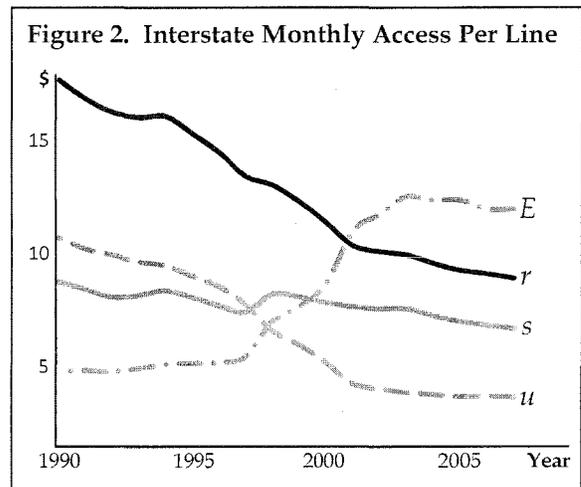
The data I analyze are from the FCC's *Automated Reporting Management Information System* ("ARMIS"). Over the period 1990 through 2007 (which exhausts the data), data are collected on interstate End User (i.e., SLC) access revenues (labeled *S*), usage-based (per-minute) access revenues (*U*), total access revenues ( $R = S + U$ ), and billable access lines (*N*) for the group of firms labeled by the data as "Large ILECs."<sup>8</sup> All revenues are expressed in 2007 dollars.<sup>9</sup> I also then express all revenues for the average "consumer" by dividing revenues by lines ( $s = S/N$ ;  $u = U/N$ , and  $r = R/N$ ).<sup>10</sup> Revenues are exclusive of interstate special access services.

Figure 1 illustrates the history of interstate access revenues of these types. As is apparent from the figure, in the early 1990s, access revenue was mostly from usage-based charges (*U*), with SLC revenue (*S*) amounting to only

about 46% of access revenue. In 2007, in contrast, SLC revenue accounted for 70% of access revenue, a dramatic (though incomplete) shift in the direction of more efficient pricing. The two revenue sources were essentially equal in 1997.



Interstate access revenues on a per-line basis are illustrated in Figure 2. The patterns in revenues are very similar across Figures 1 and 2, with SLC revenues rising over time, usage revenues declining over time, and total access revenues per-line declining quickly since the late 1990s. The trend in *r*, measuring total access revenue per line, is plainly downward over the sample period. Consumers are paying less in access charges subsequent to reform.



Included in Figure 2 is a series labeled  $E$ , which represents the ratio of fixed- to usage-based access revenue.<sup>11</sup> Given the near zero marginal cost of usage, it is possible to think of the ratio  $s/u$  as a measure of relative efficiency in the pricing system. Comparing the pattern in this series  $E$  (rising) with that of total access revenues per line  $r$  (falling), the data suggest that the more efficient is the pricing system, the lower is the amount of access charges paid by customers. The data therefore suggest that moving toward efficient pricing policies is good for consumers, reducing their out-of-pocket expenses for access services.

Figures 1 and 2 suggest that the sample period can be sensibly divided into two eras of access charge regulation. The series labeled  $E$  in Figure 2 provides the clearest distinction (where  $E$  is based on the ratio  $s/u$ ). From 1990 through 1997, the ratio of SLC and usage revenue ( $s/u$ ) was relatively stable at a value of about 0.84. From 2003 through 2007, the ratio  $s/u$  was also relatively stable at a value of 2.68. As shown in Figure 2, years 1998 through 2002 are a transition period to a more efficient pricing policy. Excluding the middle transition years, I define a Pre-Reform period as years 1990 through 1997 (seven years) and the Post-Reform period as years 2003-2007 (five years).

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*... The shift to more efficient pricing policies is not revenue neutral. In fact, based on the historical data, for every \$1 reduction in usage revenues per-line, fixed-charge revenues increase by only \$0.40.*

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How pricing reform impacts average access charge recovery from customers can be assessed by comparing such revenues across the Pre- and Post-Reform periods. The average  $r$  in the Pre-Reform period is \$17.84 per month, but in the

Post-Reform period is only \$9.69 per month, for a difference of -\$9.69 (a 46% reduction in average access revenue per line).<sup>12</sup> The bootstrapped t-statistic on the difference is -12.94 (with a probability well below 1% level).<sup>13</sup> If I account for the difference in average per-minute access minutes over time, then the reduction in average payments is -\$7.79, with a bootstrapped t-statistic of -10.62 (probability < 0.01).<sup>14</sup> These tests confirm that average access payments decline for the average customer after curtailing inefficient cross-subsidy schemes (a fact made obvious in Figure 2), even accounting for changes in usage.

A declining  $r$  also implies that increases in SLC revenues do not fully offset reductions in usage revenues. The shift to more efficient pricing policies is *not* revenue neutral. Historically, for every \$1 reduction in usage revenues per-line, fixed-charge revenues increase by only about \$0.40.<sup>15</sup> As consumers are the source of such revenues, it appears that consumers reap substantial benefits from such reform.

I can use this result to roughly predict the effect on SLC revenues of the ABC Plan's reduction of access charges to \$0.0007 per minute. Using data from 2007, per-minute access revenues for usage was about \$2.40 per line, so say the ABC Plan's rate reduction would reduce usage-based access revenue by roughly \$2.00 per-line.<sup>16</sup> Given this, average SLC revenue is, therefore, expected to increase by roughly \$0.80 per-line, per-month ( $= 2 \times 0.40$ ); a figure well below the Plan's permitted increases of \$3.75 (\$0.75 per year for five years). With about a \$2 reduction in usage revenues, a predicted \$0.80 increase in SLC revenues, a customer will pay \$1.20 less in access charges each month (about \$14 per year) after implementation of the ABC Plan.<sup>17</sup> Across all access lines, the savings is about \$1.4 billion for the customers of the nation's largest phone companies.

## Conclusion

In this PERSPECTIVE, I use government data to measure the effect on customers of the elimination of inefficient cross-subsidy schemes to more efficient pricing. The topic is relevant and timely; the FCC is currently evaluating the ABC Plan that proposes to further curb subsidies and attenuate rate arbitrage by reducing per-minute access rates to near zero while allowing the maximum permitted rate on SLCs to rise. This idea is not a new one as the migration to lower usage and higher caps for SLCs has been in process for longer than a decade.

Based on historical data, the movement to more efficient pricing policies has been a windfall to consumers, substantially reducing the amount of access charges consumers pay. Indeed, customers pay about \$8 less per-line, per-month, in access charges after reform than they did when usage-based fees were high. For every \$1 reduction in usage-based access revenues, the revenues from SLCs increase by only \$0.40. Based on this figure, SLC revenues are expected to rise by about \$0.80 per-line, per-month, if per-minute access revenues are reduced to near zero. With roughly a \$2 reduction in usage revenues from the ABC Plan, a typical customer will pay about \$1.20 less per month (\$14 per year) in access charges upon implementation of the Plan. Multiplied by the total number of access lines provided by the FCC's most current data, the ABC Plan could save American consumers approximately \$1.4 billion a year in the aggregate on traditional voice services provided by the nation's largest phone companies.

As I noted above, however, it is impossible to say exactly what the outcomes of the ABC Plan will be. The Plan includes many components, not just those considered here, including maximum prices for certain services, which limit the ability to raise the SLC. Moreover, local phone service is no longer offered under

monopoly conditions for most Americans. Indeed, recent statistics suggest that local phone companies provide landline service to only about 50% of homes.<sup>18</sup> Finally, telephone service is subject to continuing regulation in many markets, and some new regulations under the ABC Plan. Nevertheless, a review of historical data suggests reforming access charges in the way proposed by the ABC Plan will be beneficial to the average customer.

## NOTES:

\* Dr. George Ford is Chief Economist of the Phoenix Center for Advanced Legal and Economic Public Policy Studies. The views expressed in this PERSPECTIVE do not represent the views of the Phoenix Center, its Adjunct Fellows, or any of its individual Editorial Advisory Board Members.

<sup>1</sup> See, e.g., A. E. Kahn, *The Road to More Intelligent Telephone Pricing*, 1 YALE JOURNAL ON REGULATION 139-57 (1984); D.L. Kaserman and J.W. Mayo, *Cross-Subsidies in Telecommunications: Roadblocks on the Road to More Intelligent Telephone Pricing*, 11 YALE JOURNAL ON REGULATION 119-47 (1994); A. Larson, T. Makarewicz and C. Monson, *The Effect of Subscriber Line Charges on Residential Telephone Bills*, 13 TELECOMMUNICATIONS POLICY 337-54 (1989); D.L. Kaserman and J.E. Flynn, *Cross-Subsidization in Telecommunications: Beyond the Universal Service Fairy Tale*, 2 JOURNAL OF REGULATORY ECONOMICS 231-250 (1990); J. Wenders and B. Egan, *The Implications of Economic Efficiency for US Telecommunications Policy*, 10 TELECOMMUNICATIONS POLICY 33-40 (1986); Walter G. Bolter et al., TELECOMMUNICATIONS POLICY FOR THE 1980'S: THE TRANSITION TO COMPETITION 360 (1984); *Separate Statement of Commissioner Anne P. Jones, Concurring and Dissenting in Part, In re: MTS and WATS Market Structure, Phase I*, CC Docket 78-72, 93 FCC 2d 367 (1980); T.R. Beard and G.S. Ford, *Do High Call Termination Rates Deter Broadband Deployment?* PHOENIX CENTER POLICY BULLETIN NO. 22 (October 2008) (available at: <http://www.phoenix-center.org/PolicyBulletin/PCPB22Final.pdf>); and many others.

<sup>2</sup> *Access Charge Reform, Price Cap Performance Review for Local Exchange Carriers*, CC Docket Nos. 96-262 and 94-1, SIXTH REPORT AND ORDER, *Low-Volume Long Distance Users*, CC Docket No. 99-249, REPORT AND ORDER, *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, ELEVENTH REPORT AND ORDER, 15 FCC Rcd 12962 (2000) (CALLS Order), *aff'd in part, rev'd in part, and remanded in part*, *Texas Office of Public Util. Counsel et al. v. FCC*, 265 F.3d 313 (5th Cir. 2001), *cert. denied*, *National Association of State Utility Consumer Advocates v. FCC*, 535 U.S. 986 (2002); *on remand*, *Access Charge Reform; Price Cap Performance Review for LECs; Low-Volume Long Distance Users; Federal-State Joint Board on Universal Service*, CC Docket Nos. 96-262, 94-1, 99-249 and 96-45, ORDER ON REMAND, 18 FCC Rcd 14976 (2003) (CALLS Remand Order).

<sup>3</sup> The CALLS Plan shifted some of the access reductions to an explicit recovery charge on interstate revenues (referred to as Interstate Access Services or IAS). IAS revenues are included in the analysis.

<sup>4</sup> The details of the plan are available at: <http://americasbroadbandconnectivity.org/the-plan>.

<sup>5</sup> CONNECTING AMERICA: THE NATIONAL BROADBAND PLAN, Federal Communications Commission (March 16, 2010) (available at: [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-296935A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-296935A1.pdf)) (hereinafter the *National Broadband Plan*) at p. 136.

<sup>6</sup> *Trends in Telephone Service*, Federal Communications Commission (September 2010) at Table 1.1 (showing rising SLCs and declining charges per minutes since the late 1980s) (available at: [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-301823A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf)).

<sup>7</sup> My analysis is not based on a structural model of revenue determination, nor does the statistical analysis account for the multitude of macro- and micro-economic influences on revenues such as technological change occurring over time (though two of the most important influences are considered—lines and usage). As such, I cannot and do not assign a causal interpretation to the findings. Nevertheless, the pattern of access costs during periods of transition is an interesting issue, and these historical facts may help policy makers navigate the numerous ad hoc arguments of various parties.

<sup>8</sup> This sample period exhausts the available data on the FCC's ARMIS tool (available at: <http://transition.fcc.gov/wcb/armis>). Interstate (and common line) access revenue data for the large local exchange carriers are from Form 43-04, Lines 4014(i), (d) and 4011(d). Total industry IAS revenues are from the FCC's *Universal Service Monitoring Report* (2010), Table 3.2. I attribute a share of these revenues to the large carriers reported in ARMIS using a factor derived from the ARMIS data for years 2006 and 2007 (based on the difference between 4011(d) and 4014(n)). Special access revenues are excluded.

<sup>9</sup> I convert nominal to real dollars using the Consumer Price Index (available at: <ftp://ftp.bls.gov/pub/special.requests/cpi/cpiiai.txt>).

<sup>10</sup> Access line data is from Form 43-01 ("Billable Access Lines").

<sup>11</sup> For the figure, the ratio  $s/u$  is scaled by a factor of 5 to better match the scale of the other series [ $E = 5(s/u)$ ].

## NOTES CONTINUED:

<sup>12</sup> The means difference are computed using least squares regression with the dependent variable  $r$  regressed on a dummy variable equal to 1.0 for the Post-Reform period (0 otherwise) and a constant term. There are 13 observations. The bootstrap procedure uses 400 repetitions.

<sup>13</sup> Given the near monotonic decline in  $r$ , the statistical test is merely confirming what is readily apparent from the figure.

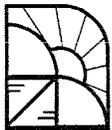
<sup>14</sup> The means difference are computed using least squares regression with the dependent variable  $r$  regressed on two covariates: a dummy variable equal to 1.0 for the Post-Reform period (0 otherwise) and switched access minutes from Form 43-01 ("Switched Traffic Sens. Demand-MOU: Premium"). There are 13 observations. The bootstrap procedure uses 400 repetitions. While total access minutes have declined over this period due to line loss and wireless substitution, the average number of minutes per line is approximately equal across the two periods.

<sup>15</sup> This statistic is estimated by least squares regression with  $s$  as the dependent variable and  $u$  as the regressor (and a constant term) using data from the Transition and Post-Reform period. There are 10 observations.

<sup>16</sup> The current large ILEC rate is about 0.0055 per minute and the proposed rate is 0.0007; the ratio of the two (0.127) multiplied about \$2.40 leaves about \$0.30 in usage based revenues. So, \$2 is a rough approximation of the loss of usage-based revenues per line.

<sup>17</sup> That said, this reduction is based on historical data alone; I have not developed a structural model of price determination.

<sup>18</sup> J. Bazinet *et al.*, *Video, Data, & Voice Distribution*, CITI INVESTMENT RESEARCH & ANALYSIS (May 13, 2011) ("[t]elco voice declined to around ... 43% of all US households"); *Trends in Telephone Service*, *supra n. 7*, at Table 7.4 (24.5% of homes are wireless only), Table 8.1 and 8.2 (non-ILEC end-user switched access lines were about 27% at the end of 2008).



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