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

In the Matter of	)	
	)	
Universal Service Contribution Methodology	)	WC Docket No. 06-122
	)	
A National Broadband Plan for Our Future	)	GN Docket No. 09-51
	)	

REPLY COMMENTS Of
EDUCAUSE

I. Summary

EDUCAUSE appreciates the opportunity to supplement its initial comments[1] and to respond to some of the other commenters regarding the proposed reform of the Universal Service Fund (USF) contribution methodology.[2] Most of the initial comments in this proceeding support our views that 1) basing USF contributions on telephone numbers, unrelated to actual usage of the network, would impose an inordinate burden on low-volume users, would not be sustainable, and would violate the principle of fairness, and 2) private networks that do not serve the general public, such as those operated by colleges and universities, should not be subject to USF fees.

The few commenters that endorse a numbers-based system fail to recognize or address the huge inequities that such a system would impose on those – such as higher education,

[1] EDUCAUSE filed initial comments in this proceeding in conjunction with the Association of American Universities (AAU), the American Council on Education (ACE), the Association of Public and Land-grant Universities (APLU), the American Association of State Colleges and Universities (AASCU), and the National Association of College and University Business Officers (NACUBO), collectively referred to as "Higher Education Associations."

[2] See, "In the Matter of Universal Service Contribution Methodology, A National Broadband Plan for Our Future," Further Notice of Proposed Rulemaking (FNPRM), FCC 12-46, released April 30, 2012.

telemessaging services, and low-volume residential consumers – who need telephone numbers but make very few long distance calls. Numbers-based advocates also fail to demonstrate that using telephone numbers is forward-looking and adaptive to technological change. Nothing in the initial comments changes our view that a numbers-based approach would be harmful to higher education and would be unsustainable. We continue to urge the FCC to reject the numbers-based USF contribution approach.

To our knowledge, no commenter suggested that the Commission should eliminate the policy adopted in 1997 that non-profit colleges and universities should be treated as end users and not as providers that should contribute directly to the USF. Some of the commenters' discussions of the "definitional" approach to defining contributors to the USF, however, could be misinterpreted as requiring colleges and universities to contribute. We urge the FCC to re-state its policy that non-profit schools, colleges, universities, libraries and health care providers should not be direct contributors and should be treated as end users in any decision to reform the USF program so that there is no confusion on this point.

II. The Commenters Fail to Establish that Basing USF Fees on Telephone Numbers is in the Public Interest.

Several significant parties oppose a numbers-based regime, including consumer advocates (NASUCA and AARP), telemessaging companies (ATSI and CMA), prepaid wireless companies (TracFone), telematics companies (OnStar), innovative cloud-based companies (Twilio), and the California Public Utilities Commission.[3] These commenters agree with higher education that any numbers-based proposal is fundamentally unfair because it would require

[3] See Initial Comments of the California PUC, pp. 8-9.

their constituents to pay USF fees that are greatly out of proportion to their actual use of the public switched network. Several of these commenters note that, even if consumers do not use basic telephone services very often, having access to a telephone number is absolutely essential in an emergency situation.[4]

Furthermore, several commenters note that a numbers-based system would be particularly subject to “gaming.” For instance, MetroPCS suggests that a numbers-based system could allow users to manipulate “how many numbers are active or [cause] devices which today require telephone numbers (such as aircards and tablets) to be retooled to eliminate their need for telephone numbers.”[5] Twilio, a cloud-based company offering telephone and text integration, suggests that a numbers-based system would not be technology neutral because it would favor companies that do not use numbers and disadvantage those that do. Twilio says that

> companies that rely on numbers could act to avoid USF by reducing their use of telephone numbers. Given the current and future state of software and hardware involved in telecommunications, one can imagine assigning a single telephone number to hundreds of users with extensions used to differentiate among users.”[6]

A system that allows high-volume users to evade contributing to the costs of maintaining the PSTN, while low-volume users of telephone numbers bear an increasing burden of paying for that network, is unconscionable and would further violate the FCC’s principle of fairness.

Only one party – large businesses represented by the Ad Hoc Telecommunications Users Association – endorses completely replacing the current revenues-based system with a telephone

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[4] See Initial Comments of TracFone, p. 5 (“. . . many users of prepaid services use their prepaid phones for limited purposes such as emergency calling and to keep in contact with family members, especially children.”)

[5] See Initial Comments of MetroPCS, p. 6.

[6] See Initial Comments of Twilio, p. 5.

numbers-based system. AT&T, ITTA and Comcast suggest using telephone numbers and/or connections. These parties suggest that telephone numbers are easy to count, that a system based on telephone numbers would be less burdensome to administer, and that such a system would be sustainable. As shown below, the evidence does not support any of these three claims:[7]

A. It would be difficult to define and measure "assessable numbers."

It is not clear how to define and measure an "assessable" number. In fact, there are number of ambiguities inherent in a numbers-based system that will create significant uncertainties and confusion in the marketplace.

For instance, the Commission proposes that an "assessable" number should be one that is "in use by an end user". This is a different definition that the definition of "assigned" numbers that are counted in the North American Numbering Plan Administrator (NANPA) database. A telephone number "assigned" to an end user may not actually be "in use" by a customer.[8] For instance, a large customer might obtain for a group of numbers under contract or tariff and reserve some of them for future use. The definition of "assigned" numbers explicitly includes some numbers that are not yet "working". Thus, the FCC's proposed definition would require telecommunications providers to estimate whether or not a customer is actually "using" the number, which could easily lead to miscalculations and uncertainty. As is the case with revenues

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[7] See Ad Hoc Comments, p.11 ("By determining up-front what constitutes an assessable number, the Commission will not have to engage in any further line-drawing or subjective decision-making about what units should be assessed for contribution purposes as part of its ongoing administration of the numbers-based contribution system.")

[8] According to the FCC's Rule 52.15, "(iii) *Assigned numbers* are numbers working in the Public Switched Telephone Network under an agreement such as a contract or tariff at the request of specific end users or customers for their use, or numbers not yet working but having a customer service order pending. Numbers that are not yet working and have a service order pending for more than five days shall not be classified as assigned numbers."

and connections, different providers may count the number of "in use" numbers in different ways.[9]

AT&T and Verizon introduced an additional uncertainty into the process of measuring "assessable numbers" in their joint filing in 2008.[10] In that filing, AT&T/Verizon suggested that an "assessable number" should be a number that is used by a "Final Consumer of Service to make or receive calls", and then defined a "Final Consumer of Service" as "not a person or entity that receives a telephone number as an input to services it provides to others."[11] This requires each telecommunications provider to identify whether or not the user is a "Final Consumer" or not, which is a different question than whether the number is "in use." Defining, interpreting and implementing this "Final Consumer" criterion could re-introduce many of the same uncertainties concerning wholesale and retail providers that plague the current revenues-based system.

B. A Numbers-based system will not necessarily be easier for the industry, USAC and the FCC to administer.

Ad Hoc submits that moving to a numbers-based system will be easier to administer because this information is already tracked and reported by providers through NRUF Form

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[9] Perhaps to its credit, Ad Hoc suggests a simpler definition of an "assessable number," but it is unlikely that its definition will be adopted. Ad Hoc suggests that an assessable number should include all "assigned" telephone numbers whether or not they are in use. (Ad Hoc Initial Comments, p. 14) Ad Hoc's suggestion would require telecommunications providers to pay USF fees based on some phone numbers that are not being used by the customer and for which there may be no billing relationship. This means that the carriers may not be able to pass through the USF charge to the customer (because there may not be a customer). It is unlikely that the telecommunications providers would be willing to "eat" the USF charge.

[10] Note that AT&T's initial comments in this phase of the proceeding refer back to its 2008 filing. Verizon, on the other hand, devoted only one page of its initial comments to the numbers-based system and devoted the vast majority of its filing to suggesting alterations to the existing revenues-based system.

[11] In an example of the difficulty of defining "assessable numbers", AT&T and Verizon filed a revision to this definition less than one month later. See, AT&T/Verizon joint ex parte, Oct. 20, 2008.

502.[12] In fact, however, a new tracking and reporting system will have to be initiated, for several reasons:

i. First, the number of "assigned" numbers reported by a telecommunications provider may not reflect the actual number of numbers used by that particular provider's customers. As mentioned earlier, the category of "assigned" numbers includes some numbers that are not "working" or in use. Furthermore, according to the FCC's rules, numbers that are "ported" from one provider to a second provider are reported as "assigned" by the first provider, even though that provider no longer serves the customer using that number.[13] For providers to be assessed fairly, the Commission will have to change the reporting system to track and account for "ported" numbers from provider to another provider. The Commission also notes that there are several kinds of numbers in the "assigned" category that are not "working", such as numbers used for administrative and routing purposes, numbers in a thousand-block that are assigned to a telecommunications provider, and non-operational numbers. To accommodate these kinds of numbers, the existing reporting mechanism will have to be substantially changed. It is thus incorrect to suggest that a numbers-based system will be easier to implement because this information is already being collected.

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[12] See Ad Hoc comments, p. 11 ("In addition, a numbers-based assessment methodology will not increase the administrative burden on carriers because, as previously noted by the Commission, the relevant numbers are already tracked by carriers and the FCC.")

[13] The December 2009 Telephone Utilization Report says that "According to NRUF rules, a number that is ported to another carrier is classified as assigned. In order to avoid double counting, the recipient of the ported number does not report ported numbers in NRUF. S*ee* 47 C.F.R. § 52.15 (f)(1)(v)." See "Numbering Resource Utilization in the United States," December, 2009, note 34.

ii. Second, the Commission is likely to have to accommodate a variety of requests for exemptions or discounted treatment for certain telephone numbers that are not currently tracked. The Commission and several carriers have already proposed not to assess telephone numbers used by Lifeline consumers. CTIA has suggested that "family share" plans and prepaid wireless numbers should also be eligible for a discounted rate, which means these numbers will have to be defined and tracked.[14] As the Commission notes, a variety of other parties have sought exemptions or discounts as well, such as telematics services, telemessaging services, one-way VoIP services, two-way paging services, alarm services, "free" services, etc. Each of these types of telephone numbers would have to be tracked and measured and filed with the Commission on a regular basis (monthly or quarterly). It is thus difficult to see how this system will be simpler to administer than the current revenues-based system.

C. The Numbers-based system may not be sustainable.

AT&T asserts that telephone numbers will provide a stable base because they are growing, which, if true, would allow the per-number USF fee to remain the same or perhaps decline.[15] This assertion that telephone numbers will continue to grow may not be correct. There is already some evidence that the number of "assigned" numbers has peaked and may be on the verge of declining. The following chart summarizes information from the FCC's Annual

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[14] See, CTIA Initial Comments, p. 9 ("At the same time, CTIA has consistently highlighted that any numbers- or connections based system would have to be designed carefully to fairly treat low-income, wireless pre-paid, and wireless family plan customers.")

[15] See AT&T initial comments, p. 21 ("And because the number of telephone numbers is large and growing, the per telephone number charge will remain low and stable for the foreseeable future, which will redound to the benefit of consumers.")

"Numbering Resource Utilization in the United States" report. It shows that the percentage of "assigned" numbers stopped growing in 2009 (the last year for which information is available).

	Dec. 31, 2004	Dec. 31, 2005	Dec. 31, 2006	Dec. 31, 2007	Dec. 31, 2008	Dec. 31, 2009
Percent of Telephone Numbers Assigned to End Users	42.2%	43.4%	44.2%	47.1%	47.9%	47.9%

Telephone access lines – and associated wireline telephone numbers – have been in decline for several years. In the past few years, the decline of telephone access lines and numbers has been offset by the growth of wireless services and numbers. But there is some evidence that the growth of wireless phone numbers is leveling off, as shown by the chart below:[16]

	Dec. 31, 2004	Dec. 31, 2005	Dec. 31, 2006	Dec. 31, 2007	Dec. 31, 2008	Dec. 31, 2009
Utilization Rate for Mobile Wireless Carriers	54.6%	59.1%	63.3%	65.0%	65.6%	66.7%

Thus, as the wireless market matures and becomes more saturated and wireline numbers continue to decline, the overall number of telephone numbers is likely to decline, not increase as alleged by AT&T, even under the current regime.

Furthermore, if the FCC were to assess USF fees on telephone numbers, it will substantially increase the incentives to reduce the use of telephone numbers. It is quite likely that several current users of telephone numbers would simply return their unused numbers back to the NANPA. While this would have the benefit of reducing the "warehousing" of phone numbers, it would have the disadvantage of reducing the "base" of active or working telephone

[16] While some might argue that the fall-off in mobile number growth is due to the economic recession, CTIA's semi-annual survey shows a steady growth in the number of connections throughout the recession (See: http://files.ctia.org/pdf/CTIA_Survey_Year_End_2011_Graphics.pdf.).

numbers. Furthermore, new technologies may further reduce the demand for telephone numbers. Twilio, for instance, notes that

> Usernames associated with a data-based voice service could eclipse the need for a telephone number in a few short years. Currently, a call originating in IP and terminating on the PSTN does not necessarily need a telephone number assigned to it, such as using Skype's "call phones and mobiles" service. Thus, application and data based communication services could quickly eclipse the use of telephone numbers, making a numbers-based contribution system unsustainable in the long term.

Thus, a USF contribution system based on telephone numbers would be no more sustainable than the current revenues-based regime.

III. The Commission Should Consider the Administrative Costs of a Hybrid Connections/Numbers Regime on End Users, such as Colleges and Universities, that Could be Required to Contribute Under Both Prongs of a Hybrid System.

Some parties suggest that the Commission should consider a hybrid scheme in which providers would pay USF fees based on telephone numbers and on connections. For instance, Comcast suggests that residential and small business consumers should be assessed based on telephone numbers, while enterprise customers should be assessed based on their connections.[17]

These commenters, however, fail to consider the impact of these hybrid plans on entities that fall into both of these categories, such as colleges and universities. College and university campuses often include residences (student dormitories and faculty housing) and also operate as enterprises. Any hybrid regime would require each college and university to track and manage

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[17] See Comcast Initial Comments, p. 28 ("For example, the Commission could use a numbers-based approach to determine the contribution obligations for residential and small business customers, but assess medium and large enterprise customers solely on the basis of their connections to a communications network, including both connections associated with "numbered" services, such as PRI trunks, and connections associated with unnumbered").

two different systems to determine its USF liability. EDUCAUSE urges the Commission to keep the system as simple as possible to reduce the complexity and administrative costs on colleges, universities and other end users.

IV. The Commission Should be Wary of Adopting a Definitional Approach that Could Be (Mis)Interpreted to Require Higher Education Private Networks to Contribute Directly to the USF.

In the past, the Commission correctly determined that "non-profit schools, colleges, universities, libraries, and health care providers should not be made subject to universal service contribution requirements."[18] One of the reasons for making this determination is that private networks, such as on-campus networks serving the students, faculty and administration of the institution, do not provide service to the general public and generally do not impose burdens on the public switched network that the USF is designed to support. Furthermore, on-campus communications networks do not compete with other providers; they are self-provisioned internal networks operated by the colleges or universities themselves. EDUCAUSE is pleased that, to its knowledge, no commenter sought to overturn this policy. Preserving this important policy is an important priority for higher education.

EDUCAUSE has some concern, however, that the proposed definitional approach could be interpreted, or misinterpreted, as treating private networks operated by higher education for

[18] Federal-State Joint Board on Universal Service et al., CC Docket No. 96-45 et al., Fourth Order on Reconsideration and Report and Order, 13 FCC Rcd 5318, 5476, para. 284 (1997). ("We also find, on our own motion, that non-profit schools, colleges, universities, libraries, and health care providers should not be made subject to universal service contribution requirements. … We conclude, however, that the public interest would not be served if we were to exercise our permissive authority to require these entities to contribute to universal service … [W]e find that it would be inconsistent with the educational goals of the universal service support mechanisms to require colleges and universities to contribute to universal service. To maintain the sufficiency of the federal support mechanisms, we have determined to treat non-profit schools, colleges, universities, libraries, and health care providers as telecommunications end users for universal service contribution purposes.")

the benefit of students, teachers and staff, as “providers” that are subject to direct USF contributions. The FCC’s proposed definition states:

> *Any interstate information service or interstate telecommunications is assessable if the provider also provides the transmission (wired or wireless), directly or indirectly through an affiliate, to end users.*

The proposed definition, standing alone, could be read to suggest that a college or university “provides” transmission and that its students, faculty and administration are “end users.”[19] This would conflict with the previous FCC decision that it is the college or university itself that should be treated as the end user, not the “provider.”[20] If the Commission adopts this kind of definitional approach, it should affirmatively re-state that the new definition does not eradicate its long-standing, existing policy regarding schools, colleges, universities, libraries and health care providers to avoid any confusion.

V. Conclusion

Higher education plays an increasingly important role in many of the nation’s highest priorities – economic recovery, research and innovation, digital learning, and the development of new broadband technologies and services. Higher education requires access to large numbers of telephone numbers for the safety and security of our students, faculty and staff and the administration of services. A numbers-based USF contribution mechanism would subject colleges and universities to enormous increases in USF payments at a time when higher

[19] In this respect, EDUCAUSE agrees with AT&T that the proposed definition is overly broad and could sweep in entities that provide telecommunications to end users that the Commission did not intend to include. See, AT&T Initial comments, p. 6 (“In fact, however, the proposed rule would include those very services, as well as the other service categories mentioned above, because all of these services involve the provision of telecommunications ‘to end users’ at some point in any given communication with them, albeit not over the last-mile links closest to them.”)

[20] The Commission’s definitional approach is further difficult to comprehend when the Commission suggests that providers are not subject to USF contributions if their end users “bring their own telecommunications.” It is not clear how this applies to colleges and universities who operate their own internal networks.

education is facing extraordinarily difficult fiscal constraints. The initial comments in this proceeding demonstrate that a numbers-based USF collection system would be extremely unfair to many organizations and consumers in addition to higher education and would introduce new uncertainties and opportunities for arbitrage.

For the reasons stated above, EDUCAUSE respectfully urges the Commission 1) to reject a numbers-based USF collection mechanism and 2) to re-state its policy that non-profit schools, colleges, universities, libraries and health care providers shall be treated as end users, not as “providers” in any USF reform decision.

Respectfully Submitted,

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