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Reforming the Universal Service Fund for the Digital Age

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Chapter 7

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The federal Universal Service Fund program is in crisis.

This observation is neither exaggerated nor controversial. Congress overhauled the program in 1996, ostensibly to assure that as the telecommunications industry transitioned from monopoly to competition, providers would continue to assist those who could not afford basic service. But in the fifteen years since, the fund has doubled in size to $8 billion annually, much of which is spent on projects having little to do with the traditional goals of universal service. The Federal Communications Commission has admitted that the system distorts investment in myriad ways, while the Government Accountability Office has criticized the program for an appalling lack of oversight. At the same time, advances in technology mean that the fund's cost is drawn from a shrinking base of interstate and international telecommunications revenue, which has caused the USF surcharge paid by consumers on all interstate calls to skyrocket from 3% in 1998 to 17.9% at the beginning of 2012.

To the Commission's credit, it adopted a sweeping 750-page order in late 2011 that brought much-needed reforms to the High-Cost Fund, the biggest and most problematic portion of the Universal Service program. The Commission also began shifting the program's focus from ordinary telephone to broadband service, recognizing the importance of high-speed Internet access to modern society. But as significant as those reforms are, and as difficult as they will be to achieve, they represent only the first step toward the transformation needed. Over the next five years, the Commission should refocus the Universal Service program on what ought to be its renewed core mission: assisting consumers who cannot afford broadband access, through market-based, consumer-empowering initiatives that befit an increasingly competitive broadband marketplace. And it should abandon the antiquated and rickety contribution mechanism currently in place, by funding these initiatives instead from the general treasury.

The Troubled Universal Service Fund

The basic tenet of universal service – that the government should assist those who cannot afford basic access to the telecommunications network – has been a cornerstone of telecommunications policy for nearly a century. In economic terms, this assistance is justified by network effects. The value of a network connection to a consumer depends largely upon the number of other people the consumer can reach with that network.[1] Every new user added to the network imposes a positive externality on existing users, each of whom can now reach more people than before. Therefore, a public policy to maximize telecommunications subscribership levels benefits not only those who cannot otherwise afford access, but all other subscribers as well. Universal service also helps maximize the utility of the network for society as a whole, by improving civic participation levels, economic opportunities, and public safety.

Unfortunately, however, less than 15 percent of the Universal Service Fund's $8 billion annually goes toward Lifeline and Link Up, the programs that directly serve this laudable goal. Over $2.3 billion in 2010 went to E-Rate, a program that provides computers and broadband access to schools and libraries. Congress, the GAO, and the Commission's own Office of the Inspector General have criticized E-Rate for lax oversight and the potential for abuse, including purchasing wasted resources or resources far exceeding the beneficiary's reasonable needs.[2] But even this $2.3 billion is dwarfed by the $4.5 billion – over half of all USF contributions – spent on the Universal Service program's High-Cost Fund, which directly subsidizes the operations of telephone companies in rural areas and other so-called "high-cost" markets. Ostensibly, the High-Cost Fund is designed to defray the costs of wiring and serving customers in unconventional, expensive service areas. But in practice, the fund is a wasteful form of corporate welfare that distorts competition and inhibits cost reduction in those areas it claims to serve.

First, the High-Cost Fund subsidizes service in many areas where subsidies are unnecessary or harmful. Because the fund distributes subsidies to service providers without subjecting

[1] See, e.g., Stuart Benjamin et al, Telecommunications Law and Policy at 9-10 (2012) (describing network effects); *id.* at 333-336 (describing role of network effects in telephone industry).

[2] See Federal Communications Commission, Office of Inspector General, Semiannual Report to Congress, at 2-10 (Oct. 31, 2002), available at http://transition.fcc.gov/oig/sar902.pdf; General Accounting Office, Greater Involvement Needed by the FCC in the Management and Oversight of the E-Rate Program, GAO-05-151, 2005 WL 1378000 (Feb. 9, 2005); Waste, Fraud, and Abuse Concerns with the E-Rate Program: Bipartisan Staff Report for the Use of the Committee on Energy and Commerce, House, 108th Congress., 2nd Sess. (2005), available at http://www.access.gpo.gov/congress/house/pdf/108hrg/95443.pdf. The annual E-Rate budget is capped by statute.

consumers to means-testing, the High-Cost Fund often assists wealthy rural areas where customers are at no risk of leaving the network if forced to pay the full cost of access. For example, economist Thomas Hazlett notes that in 2005, the Jackson Hole, Wyoming, service area received $282 per subscriber in annual subsidies, despite having income and net worth well above the national average.[3] In some areas, the fund subsidizes a carrier that competes head-to-head against unsubsidized competitors—an arrangement that distorts competition without bringing service to anyone who would not be served absent the subsidy. In other areas, the fund subsidizes multiple providers at the same time. This arrangement could promote efficiency if subsidies were portable, because the providers would compete with one another for subsidy-eligible consumers. But alas, the fund often continues to provide subsidies to cover incumbent carriers' costs even if their customers flee to other providers, resulting in a double-payment by taxpayers and, at the same time, insulating old legacy telephone companies from competition.

Second, the High-Cost Fund often encourages inefficient investment, a fact the Commission has readily acknowledged. For rate-of-return carriers, which consume over $2 billion annually in subsidies despite serving less than five percent of all telephone users, subsidies are calculated based upon the carrier's "embedded costs." Perversely, the higher the firm's costs, the more it will receive in subsidies. There are few mechanisms in place to prevent "gold plating," that is, the installation of equipment far more expensive than necessary to meet a community's needs, solely to increase the company's rate base. There is also no cap on per-line support, which leads to situations like Hawaii's Sandwich Isles Communications Company, which has received over $10,000 per line per year in subsidies annually since 2005.[4] Similarly, Beaver Creek Telephone Company received over $454,000 in 2008 to serve just 27 lines, which amounted to almost $17,000 per line. Several other companies receive thousands per line in annual subsidies, often in areas that wireless providers can serve at a fraction of the cost. [5]

Finally, the High-Cost Fund lacks sufficient oversight and accountability. And the government is the first to admit this shortcoming. The GAO released a scathing report in June

[3] Thomas Hazlett, *"Universal Service" Telephone Subsidies: What Does $7 Billion Buy?* at 3 (2006), available at http://www.arlingtoneconomics.com/studies/universal-service-telephone-subsidies.pdf.
[4] See http://transition.fcc.gov/wcb/iatd/monitor.html; Federal Communications Commission Response to United States House of Representatives Committee on Energy and Commerce Universal Service Fund Data Request of April 1, 2009.
[5] See Hazlett, supra note 3, at 20 (noting that Nextel offered wireless service throughout the Sandwich Isles Communications Company service area, and that even satellite phone service can be less expensive than the per-line amounts paid to some carriers.

2008 titled "FCC Needs to Improve Performance Management and Strengthen Oversight of the High-Cost Program."[6] And the Commission's own audits concluded that in 2006-07, the fund made "erroneous" payments totaling $970 million, or almost 25 percent of all high-cost spending.[7] The assessment concluded that the fund was "at risk" under the Improper Payments Information Act of 2002, which labels any federal program risky if its error rate exceeds $10 million or 2.5 percent of annual disbursements.

The FCC's 2011 Reforms

To its credit, the Commission adopted an order in late 2011 that, if successful, may mitigate some of the most egregious aspects of the High-Cost Fund. Notably, the order placed a "firm budget" on the High-Cost Fund to control skyrocketing costs. For the next six years, the agency plans to hold High-Cost spending to the 2011 level of $4.5 billion annually. But the order appears to fall short of the "hard cap" that many commenters called for, as the Commission has committed only to "an automatic review trigger" if annual claims against the fund threaten to exceed that amount.[8] The Commission has also capped the amount of annual assistance that a carrier may receive to $3000 per line,[9] although the Commission admits that only a handful of carriers currently receive assistance above the capped amount, and those carriers may petition the Commission to waive the cap. While these measures may seem mild limitations, these reforms are welcome first steps toward arresting the growth of a fund that has been spiraling out of control for nearly a decade.

More monumentally, the Commission began reorienting the fund's focus from telephone service to broadband access. As part of this shift, all price-cap carriers receiving High-Cost Fund assistance for voice telephony must also offer their customers fixed broadband service at specific speeds, while rate-of-return carriers must make such service available upon a customer's reasonable request. Companies will be required to certify compliance with Commission-

[6] GAO 08-633, 2008 WLNR 13168534 (July 14, 2008).
[7] Office of Inspector General, Federal Communications Commission, The High Cost Program Initial Statistical Analysis of Data from the 2007/2008 Compliance Attestation Examinations, November 2008.
[8] See Connect America Fund, Report and Order and Further Notice of Proposed Rulemaking, FCC 11-161 (Nov. 18, 2011), at ¶ 563 (explaining that in the event that HCF demand exceeds $4.5 billion in a year, the Wireline Bureau will "provide to the Commissioners a recommendation and specific action plan to immediately bring expenditures back to no more than $4.5 billion.").
[9] *Id.* ¶ 274.

established performance metrics and will be subject to audits.[10] The Commission also announced plans to replace the High-Cost Fund with a new Connect America Fund (CAF), which will focus on bringing broadband to unserved areas.[11] The order freezes High-Cost assistance to price cap carriers and establishes a five-year plan to shift this money toward the deployment and maintenance of broadband networks. While it does not lay out a specific plan to phase out the $2 billion paid annually to rate-of-return carriers, the order establishes several reforms to eliminate certain inefficiencies in the current program and seeks further comment on how best to transition rate-of-return spending to the Connect America Fund.

Importantly, the order also signaled a sea change in the agency's philosophy for administering the Universal Service program. The Commission explicitly and repeatedly endorsed a "more incentive-based, market-driven approach" to distributing subsidies.[12] For example, the order eliminates subsidies to any carrier whose service area is already served by an unsubsidized provider, because such aid distorts competition without furthering the goal of providing telecommunications services to those who do not have reasonable access. In areas where two or more subsidized providers are competing, assistance will be based on each carrier's costs rather than the arcane "identical support rule" that paid new providers on the basis of the incumbent's cost structure. And most significantly, the Commission has endorsed reverse auctions as the ultimate mechanism to administer CAF subsidies, meaning that providers will compete for subsidies by bidding to provide service throughout a defined service area at the lowest cost.

Fundamentally Restructuring Universal Service

In the 2011 order, one sees the seeds of a much-needed overhaul of the Universal Service program. To its credit, the Commission has recognized the need to respond to two significant changes in the telecommunications marketplace. The first is the shift from monopoly to competition. The industry is no longer dominated by monolithic legacy telephone companies who agreed to serve everyone in a service area in exchange for state protection from competition. Today, 82 percent of U.S. census tracts are served by two or more fixed broadband providers,

[10] *Id.* ¶ 109.
[11] *Id.* ¶¶ 20, 115.
[12] *Id.* ¶ 9; see also *id.* ¶ 20.

while wireless access continues to grow in scale and popularity.[13] The Commission's endorsement of incentive-based, market-driven policies recognizes that the fund should capitalize on this shift and embrace competition to aid the unserved. The second is the shift from circuit-switched voice telephony to IP-based broadband networks. The Commission is absolutely right that high-speed Internet access will be the primary telecommunications network of the future, with voice service representing one of many applications available to consumers. The Communications Act recognizes that universal service is an evolving level of telecommunications service, and high-speed Internet access is increasingly required to participate in modern economic and civic life.

Yet the Commission's order, and its plan to address Lifeline and Link Up in 2012, do not reflect the magnitude of reforms demanded by these fundamental industry shifts. The Commission seems content to focus on individual components of the universal service program, trying to modify existing programs designed to support the old telephone industry to fit a very different broadband market. This piecemeal approach shows that the opportunities presented by the migration to broadband bring with them a significant risk: the risk that rather than correcting the problems with the existing system, we import those problems into a dynamic new marketplace. In the process, we will have missed an opportunity to design new, better subsidy programs that are tailored to meet the unique challenges that broadband presents.

Existing reforms also pay little attention to the biggest structural flaw in the current system, namely that it has strayed far from its core mandate of assisting those who genuinely cannot afford access to the network. The 1996 Act's extension of subsidies to high-cost carriers, libraries, schools, and rural health care facilities drove both the monumental growth in fund expenditures and the well-deserved complaints about waste and corruption in the fund's administration. In the process, it created a host of new recipients whose voices are shaping the reform debate. It's no surprise that the 2011 reforms adopted many elements of the ABC Plan, an earlier proposal promulgated by a consortium of subsidy-receiving telephone companies. While it's rational that these companies would seek a voice in reform negotiations, their concern with preserving existing subsidies is inconsistent with efforts to achieve more fundamental change.

America's migration to broadband networks presents a once-in-a-generation opportunity to bring transformational change to an outdated, mismanaged, and schizophrenic assistance

[13] See Federal Communications Commission, Connecting America: the National Broadband Plan, at 37 (2011).

program. Policymakers should capitalize on this brief window of opportunity by adopting market-based initiatives whose goal is to assist those who cannot afford basic broadband Internet access. And it should provide that assistance directly to affected consumers, rather than supporting carriers as their proxies in ways that distorts broadband competition. Finally, these efforts should be undertaken in a financially responsible manner, minimizing costs and funding those costs in a way that does not overly burden broadband consumers and providers.

Implementing Targeted Subsidies Through Vouchers

On the subsidy side, the cornerstone should be a voucher program similar to a telecommunications version of the food stamp program, or a fund-provided broadband phone card. Eligibility would be determined by the means-testing currently undertaken for Lifeline eligibility: proof of income below an appropriate income level, or participation in one of many other means-testing programs such as Medicaid, food stamps, SSI, or the Section 8 Housing Program. States could adopt alternative eligibility criteria with Commission approval, which would help assure that the program is flexible enough to meet each state's unique needs.

The amount of the subsidy would necessarily vary by service area. For each area, the Commission would determine an appropriate fee that a telecommunications provider should charge the consumer for subsidized broadband service (the "subsidized rate"), as it currently does with Lifeline. It would then issue a nontransferable voucher to eligible participants in the amount of the average market price for basic broadband service[14] in that service area minus the subsidized rate. In service areas where one broadband provider has market power, the Commission could prevent price-gouging by limiting the voucher to an amount sufficient to assure a reasonable rate of return to a reasonably efficient provider in that service area.

But the voucher itself would be a fixed, portable amount that the consumer could take to any participating telecommunications provider. Any provider that accepts a voucher must agree to provide basic broadband service to voucher holders throughout the service area at no more than the subsidized rate plus the voucher amount. The consumer need not use the voucher to purchase basic broadband service; he or she could instead choose to apply the voucher to receive (presumably less expensive) voice-only service, or as a credit toward a suite of more advanced

[14] That is, broadband service that meets the Commission's minimum performance criteria.

telecommunications services, if the provider makes these alternatives available to the public generally. This flexibility extends the promise of at least voice access to those eligible households that cannot afford broadband even at the subsidized rate, without locking in voucher recipients to basic broadband if they are willing to pay for additional services.

The portable voucher structure gives purchasing power directly to low-income individuals, allowing them to participate in the telecommunications marketplace like any other consumer, and allows the fund to directly benefit from competition among broadband providers. To attract recipients and avoid customer defection, providers must compete on price and service as they do in the marketplace generally. While the program prevents providers from charging more than the average market rate for broadband service, providers could charge a lower price. Moreover, because the voucher amount depends upon the average market price for broadband service, less efficient providers have incentives to improve their operations while hyper-efficient competitors are rewarded accordingly. And the vouchers are technologically neutral: any provider willing to offer basic broadband service would be eligible to participate, regardless of the platform through which the customer is served.

Implementing Cost-Control Mechanisms

Of course, vouchers do not help those areas of the country that are not yet wired for broadband because extending the network would be cost-prohibitive without some subsidy. For these areas, the Commission may wish to maintain the buildout assistance contemplated in the 2011 order for a limited transition period. Funding should flow only to those areas not currently served by an unsubsidized broadband provider, and recipients should meet stringent buildout requirements and agree to provide service throughout the service area. This aid should be distributed through reverse auctions, and the total amount should be subject to an annual cap that is reduced over time as the market fills in the existing gaps in our broadband network.

The primary obstacle to these reforms, as with any broadband universal service proposal, is cost. Broadband access is more expensive than the voice service that the fund currently provides, so any attempt to subsidize broadband service necessarily would increase the size of the fund. But substantial savings may be found by phasing out those programs that do not directly serve the goal of bringing access to those who cannot afford it. Thomas Hazlett notes that much of E-

Rate's library and school funding probably replaces other sources of funding that would have provided the same services through other means. This is particularly true in wealthier E-Rate communities such as Beverly Hills, California, and Fairfax County, Virginia, where income is well above the national average.[15] But even setting aside this objection, broadband access is no more integral to a library or school's mission than any other part of the institution's operation. The costs of this access should be incorporated into the institution's budget and paid the same way all other expenses are, so the local community can make an accurate assessment of whether its institutions require such service, and at what level or cost.

Similarly, the Commission should commit to slowly but firmly phasing out the High-Cost Fund assistance given directly to carriers, by steadily decreasing the amount of annual subsidies available until the program is eliminated. Of course, carriers will object that this approach will remove the ongoing subsidies that the fund provides to areas with high annual operating costs but few impoverished residents. In those markets, the costs of broadband access will rise, sometimes substantially, to reflect the true costs of service. But this is not necessarily a significant problem. Like E-Rate, High-Cost Fund support is not means-tested, so much of it flows to communities where few would drop off the network even if forced to pay full market rates.

More fundamentally, the fact that a community's telecommunications costs are unusually high is not, alone, a reason to subsidize them. There are a wide range of goods integral to modern life whose costs vary dramatically by location – for example, housing, food, or gasoline. Yet few suggest that because a two-bedroom apartment is more expensive in Manhattan than in Houston, we should provide a federal housing subsidy to all Big Apple residents. Similarly, the Universal Service program should not subsidize what is effectively a lifestyle choice by those who could afford broadband access in most areas but choose instead to live in a region with a high cost of service.

Implementing a New Contribution Regime

Finally, Congress should abandon the fund's increasingly arcane contribution methodology. The existing contribution system relies on anachronistic distinctions between interstate and

[15] See Hazlett, supra note 3, at 51-52.

intrastate service and between telecommunications and information services, which are largely irrelevant in the broadband age.[16] It induces consumers and carriers to adopt technology based in part on its regulatory classification rather than its intrinsic value. Moreover, it seems counterproductive to fund universal service by taxing the very services the Commission seeks to promote. As the Federal-State Joint Board noted, "larger USF contributions increase the risk that telecommunications services will become unaffordable for some, or even a substantial number, of consumers."[17] At nearly 18 percent of every bill and rising, the surcharge may already be retarding telecommunications use.

The simplest and most elegant solution to the contribution problem is simply to fund universal service through a line item in the federal budget like most other entitlement programs. Other proposed solutions, such as a tax on telephone numbers or IP addresses, while likely an improvement over the existing revenue-based regime, suffer from similar problems as the current methodology: they are underinclusive and encourage strategic behavior by consumers, while discouraging the very services the program seeks to subsidize. Paying for universal service from the general treasury would improve the transparency of the program by vesting oversight in Congress or the Commission rather than the murky, semi-private Universal Service Administrative Company. And it would apply a hard budgetary cap to annual expenditures, requiring the Commission to wring inefficiencies out of the system in order to serve the public within congressional funding restraints.

The primary objection to such a shift is the public's distaste for new entitlement programs. But in reality, this approach would not create a new entitlement; rather, it would simply make a hidden tax more transparent. For nearly eighty years, Congress and the Commission have been scared to show taxpayers the true cost of the universal service program that they support. One may ask why. Perhaps it is from a fear that if the taxpayers knew the truth, they would object to the inefficiencies and special interest subsidies that have placed the Universal Service program into crisis. If so, that fear tells us quite a bit about the radical changes required in the next five years to restore the fund to its original mission while preparing it for the challenges of the broadband age.

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[16] High-Cost Universal Service Support, Order on Remand and Report and Order and Further Notice of Proposed Rulemaking, 24 FCC Rcd 6475, 6656 (2008).

[17] High-Cost Universal Service Support, Federal-State Joint Board on Universal Service Recommended Decision, 22 FCC Rcd 20477, 20483 (2007).