Mr. Chairman and Members of the Committee:

Thank you for the opportunity to enter written testimony into the record of the subcommittee’s hearing on reforming the High Cost Universal Service Fund.

I am a research fellow with the Mercatus Center, a 501(c)(3) research, educational, and outreach organization affiliated with George Mason University.1 For the past several years, much of my research has focused on reform of the high-cost universal service funds, both on the federal and state levels.2 I have submitted a series of comments based on this research in various Federal Communications Commission (FCC) universal service reform proceedings.3 In addition, my colleagues and I at the Mercatus Center have extensive experience developing and critiquing government agencies’ performance measures as a result of our work on government accountability. In 2009, we will publish our tenth annual Performance Report Scorecard, which assesses the quality of annual

1 This testimony reflects only the views of the author and does not represent an official position of George Mason University.
3 The most recent, which includes references to prior comments, is Jerry Ellig, Public Interest Comment on Intercarrier Compensation and Universal Service, WC Docket No. 05-337 et. al. (Nov. 26, 2008), http://www.mercatus.org/PublicationDetails.aspx?id=25484.
performance and accountability reports produced by the 24 Cabinet and Chief Financial Officers’ Act agencies that account for the vast majority of all federal spending.\(^4\) As a result of this research, we have actively participated in the FCC’s proceedings on management of the universal service fund.\(^5\)

**The Importance of Outcome Measures**

Everyone has a favorite proposal for reforming the high-cost fund: reverse auctions, new cost models for awarding subsidies, subsidy caps, subsidies for broadband, numbers-based contributions to the universal service fund, and so forth. I would like to bring to the subcommittee’s attention to one critical element that is compatible with, and critical to, any proposed reform: establishment of outcome measures for the high-cost programs.

It’s not just a good idea; it’s the law. The Government Performance and Results Act of 1993 (GPRA) requires federal agencies to produce strategic plans with performance measures, annual performance plans with performance goals, and annual performance reports that measure progress toward those goals. Measures are supposed to track the agencies’ “outputs, service levels and outcomes.”\(^6\)

Outcomes are the actual benefits created, or harms avoided, for citizens. “Outcomes are not what the program did but the consequences of what the program did.”\(^7\) Outcome measurement is crucial if congressional and FCC decisions are to be based on actual evidence of the effects of universal service programs.

Despite GPRA’s mandate, the Government Accountability Office (GAO) reported in July 2008 that the FCC still had not developed outcome measures for universal service programs:

In particular, prior GAO reports indicate that best practices include developing goals and measures that address important dimensions of program performance, developing intermediate goals and measures, and developing goals to address mission-critical management problems. Yet, the FCC has not established long-term or intermediate performance goals and measures. Additionally, OMB noted that performance measures

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\(^6\) GPRA Sec. 1115. Emphasis added.

should reflect desired outcomes, which describe the intended results of the program. Yet, FCC data collection efforts focus on program outputs, such as the number of requests for support payments, which describe the level of activity.\(^8\)

A 2007 FCC decision adopted some performance measures for universal service programs, but it did not adopt outcome measures.\(^9\) An FCC Notice of Inquiry in September 2008 sought further comment on performance measures for all of the universal service programs.\(^10\) I do not know if the FCC’s new management will choose to follow up this Notice of Inquiry with action.

Unfortunately, GPRA has no teeth. The law says agencies must develop outcome measures for all major programs, but the law has no automatic penalties if they decline to do so.\(^11\) Ultimately, it is up to the congressional oversight and appropriations committees to motivate agencies to produce outcome information by making it clear that they want outcome information. That’s where this subcommittee has the opportunity to play a proactive and highly productive role.

**Suggested Outcome Measures for the High-Cost Program**

The plain language of the Telecommunications Act states that consumers in rural and high cost areas are to have “access” to telecommunications and information services that are “reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas.”\(^12\) Outcome measures that focus on access to service at reasonably comparable rates should receive broad support among policy makers who are genuinely interested in ensuring that universal service programs promote affordable access to communications services. The Telecom Act’s language implies that performance measures should answer two questions:

1. Do the targeted customers have access to the desired services?

2. Are the prices of these services for rural customers “reasonably comparable” to urban rates?


\(^12\) §254 (b) (3).
1. Access

Measures like the number and percent of homes where the service is available would demonstrate how many households in a given area are able to subscribe to the applicable services if they so choose. The concept of measuring access should not be a strange one to the FCC. The FCC measures the deployment of broadband Internet as the percentage of cable and telephone customers who have access to high-speed service and also releases an annual report that provides maps that indicate where wireless service is available to customers.

For the high-cost program, however, the FCC counts subscribers and subscribership rates, rather than directly measuring availability. But access and subscribership are not the same thing.

Subscribership clearly requires access. Very high subscribership rates imply that telephone service is available virtually everywhere in the United States. Exceptions may be certain high-cost and rural areas if the requisite infrastructure is not in place.

However, one may have access to a service and still not choose to subscribe. A seaside community with many vacation homes, for example, might show a low subscribership rate for wireline phone service because many homeowners simply bring their wireless phones with them when vacationing. Some families might regard television as a more useful source of information than a high-speed Internet connection. As a result of such consumer decisions, the penetration rate for a service might be low even though it is available. If the service is available at reasonably comparable rates, then the policy goals of the Telecommunications Act have been achieved even if some or many households choose not to subscribe. For this reason, accurate performance measures must track access, not just subscribership.

2. Price

The FCC should determine whether the high-cost program facilitates service in high-cost areas at rates that are “reasonably comparable” to those in urban areas. To determine whether rural rates are reasonably comparable to urban rates, the FCC needs to measure rates. A simple evaluation might compare rates in rural areas to rates in urban areas. The FCC would need to decide how close the rural rate must be to the urban rate to qualify as reasonably comparable. Only after defining this measure could the FCC determine to what extent the universal service program has achieved the goal of making rural rates reasonably comparable to urban rates.

14 Federal Communications Commission, ANNUAL REPORT AND ANALYSIS OF COMPETITIVE MARKET CONDITIONS WITH RESPECT TO COMMERCIAL MOBILE SERVICES 134-184 (January 28, 2008).
A simple rural/urban rate comparison might not be a perfect measure of comparability because urban and rural incomes can differ significantly. A more accurate measure might be to compare the rural price/income ratio to the urban price/income ratio. Whether the additional accuracy introduced by using the ratio of rates to income is worth the additional difficulty is, of course, an open question.

For wireline telephone service, the FCC can no longer presume that longstanding state-regulated rates in rural areas are “reasonably comparable” to urban rates. Joseph Rotondi and I recently completed a study of universal service in the state of Texas that illustrates this point. In Texas, regulation historically kept most rural phone rates for basic local service below urban rates and below economic measures of long-run cost. A 2007 evaluation by the Texas Public Utility Commission (PUC) revealed that all basic local residential rates of the largest incumbent were below the national average urban rate of $14.53. No basic local rates of the four largest incumbents exceeded the national average urban rate by more than $1.50. Only six of the 54 smaller incumbents had any basic local residential rates exceeding the national average urban rate. Basic local residential rates in Texas had not changed since 2000 or earlier. The Texas Public Utility Commission found that state subsidies kept rural rates reasonable—but also hinted that higher rates for basic local telecommunications service might also be considered reasonable. The PUC noted, “The preservation of existing BLTS [basic local telephone service] rates, some of which have been in effect for decades, does not necessarily mean that existing rates are still reasonable.” In April 2008, the Texas PUC approved a settlement that reduces universal service subsidies to the four largest carriers and allows them to raise rates on subsidized lines by a few dollars per month.

As the Texas example demonstrates, the FCC cannot presume that universal service subsidies accomplish their statutory objectives simply because they enable phone companies in rural areas to charge regulated rates that are lower than they would be in the absence of subsidies. The FCC needs to define what “reasonably comparable” means

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15 Ellig & Rotondi, supra note 2.
17 Id.
18 Id. at tbl. 7.
19 Id. at 24.
20 Public Utility Commission of Texas, Docket No. 34723, Motion for Approval of the Unanimous Settlement Agreement (April 8, 2008). (Accessible through the PUC’s electronic Interchange filing retrieval system.)
21 A traditional justification for keeping rural rates below urban rates is that rural customers have fewer people in their local calling areas, and hence they are more likely to pay substantial long-distance charges. Lower local rates help compensate for the higher long-distance charges. Long-distance service, however, is priced much differently than it was when current local-rate structures were put in place. All-distance plans available from both wireline and wireless carriers offer long-distance calling at zero incremental cost per call. Even when purchased separately, long-distance is now widely available for a few cents per minute. Clearly, the size of the long-distance penalty paid by rural subscribers has fallen significantly. Hence, it is much more difficult to justify the idea of keeping rural rates below urban rates to compensate for rural residents’ higher long-distance costs.
and determine whether the regulated local rates in rural areas are reasonably comparable to urban rates.

Program Evaluation

The most informative outcome indicators isolate the government agency’s direct effect on the outcome from other causes and indicate how much of the change in the outcome was due to the government’s action. When such an indicator cannot be constructed, it is still often possible to assess the effects of government actions through field trials or statistical analysis that attempts to separate the effects of various factors.22

This is the role of program evaluation. A program evaluation is defined as “an assessment, through objective measurement and systematic analysis, of the manner and extent to which Federal programs achieve intended objectives.”23 GPRA requires program evaluation. Agency strategic plans must identify program evaluations used to reevaluate goals and objectives and set forth a schedule of program evaluations.24 The agency’s annual performance report must summarize the results of program evaluations concluded in that fiscal year.25

To evaluate the success of universal service programs, it is not enough that the FCC measure access and rate comparability. At best, these are intermediate outcomes. The ultimate outcomes of value to citizens are the economic, social, educational, health, and cultural outcomes that affordable access to communications services is assumed to produce. The FCC or an independent evaluator, such as GAO, should bear responsibility for assessing whether access and rate comparability do indeed produce the public benefits legislators hope they will produce. Congress could enumerate these anticipated benefits in legislation, or the subcommittee could enumerate the benefits in a request to the FCC or GAO.

Logically, access at comparable rates cannot create public benefits unless it results in an increase in subscription or connectivity above the levels that would exist in the absence of the universal service programs. Program evaluation of outcomes, therefore, should be based on the following causal chain:

1. The high-cost program causes basic local telecommunications service to be available at reasonably comparable rates;
2. Availability at reasonably comparable rates causes an increase in subscription; and
3. Increased subscription generates economic or social benefits for the public.

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Accurate evaluation requires a determination of how much of each outcome was actually caused by the high-cost program. For example, a local economic boom created when a rural area becomes an “outer suburb,” retirement haven, or tourist destination might increase the availability or reduce the price of telecommunications services, but this improvement was not caused by universal service programs. Similarly, a recession or economic recovery might affect the number of households subscribing to telephone service in rural areas, and these changes in subscribership should not be attributed to the high-cost program.

The most accurate way of determining causality is to compare the actual outcome to the outcome that would have occurred in the absence of the program. In some cases, this comparison can be accomplished by examining the outcome measure before and after the program is adopted or comparing outcome measures across similar places that have different levels of program funding. One can roughly gauge the effect of universal service programs on rate comparability, for example, by comparing subsidized prices in rural areas to the prices that would prevail if the service in those areas had to cover its full costs.

Such relatively simple comparisons, however, are not always possible or illuminating—especially if a program is nearly universal or has been in existence for a long time. Careful counterfactual analysis, often based on econometrics or on careful selection of “treatment” and “control” groups, may be necessary.

Determining the effects of universal service programs on availability of service, for example, may require fairly sophisticated analysis. For each program, the challenge is ascertaining whether infrastructure to provide the service would be available in the absence of the subsidy. Ascertaining whether infrastructure would have been available in the absence of the program is not the same thing as ascertaining whether the infrastructure that actually exists would have been available. In some rural areas, wireline telephone service might not exist in the absence of subsidies, but a less expensive wireless solution might have been deployed instead.

After analysts have calculated how the high-cost program has affected service availability and rate comparability, they can estimate how these changes affect subscribership by drawing on a voluminous economic literature that assesses the price sensitivity of consumer demand for communications services.26

The final step is to ascertain how the change in subscribership affects overall benefits to the public. Here again, analysts could build upon existing economic research. Several economists have attempted to measure whether the addition of subscribers to the telephone network generates spillover benefits for subscribers who were already on the network. Others question whether these benefits are substantial, or whether universal service programs are necessary to achieve them. In short, this is hardly a new or unexplored area of inquiry.

Conclusion

An evidence-based approach to high-cost universal service requires objective analysis to determine whether, and to what extent, the high-cost program actually causes the intended outcomes—the results that citizens value and that (presumably) motivated the program. Decisions that are not guided by evidence of actual effects are best characterized as “faith-based” initiatives. In the absence of actual evidence, decision makers simply take on faith that undertaking activity X will produce result Y.

As expressed in the 1996 Telecommunications Act, Congress wants residents of rural areas to have access to services reasonably comparable to those in urban areas, at reasonably comparable rates. Yet the FCC has never measured how many more people have service because of the universal service subsidies, nor has it measured the effect of the subsidies on rates. Regulators have not assessed the effects of high-cost subsidies on subscribership or on the broader social benefits increased subscribership is supposed to create.

To promote evidence-based decision making in regard to the high-cost fund, Congress should require the FCC to measure the outcomes articulated in the Telecommunications Act: access to reasonably comparable service and reasonably comparable rates. Legislators should also require the FCC or independent analysts to:

1. Analyze how much of a change in these two outcomes the high-cost fund has caused,
2. Assess how this change in access and price has affected subscribership, and

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3. Estimate how this change in subscribership has affected the economic, social, and cultural opportunities available to rural households or other broad social benefits the high-cost fund is supposed to promote.

Only then can decisions about proposed reforms be made on the basis of knowledge rather than faith.