

specific caps now actually imposes any significant penalty on Verizon Wireless. Thus, to the extent that ALLTEL received and spent support that now must be returned, it was, in effect, simply the recipient of an interest-free loan.

16. Finally, Verizon Wireless argues that the Bureau failed to address its request for a waiver of the company-specific cap.³⁷ Waiver of the Commission's rules is appropriate only if both (i) special circumstances warrant a deviation from the general rule, and (ii) such deviation will serve the public interest.³⁸ In considering whether to waive its rules, the Commission may take into account considerations of hardship, equity, or more effective implementation of overall policy on an individual basis.³⁹

17. We do not think Verizon Wireless has shown that good cause exists to grant a waiver in these circumstances. As discussed above, Verizon Wireless has not shown that implementing the company-specific caps will cause hardship or inequity to Verizon Wireless. In addition, the Commission already determined, when it imposed the company-specific caps as conditions of transactions in 2008, that those caps would serve the public interest. Moreover, as noted above, the funding that Verizon Wireless seeks to keep will directly advance the Commission's broadband reforms adopted today. We do not believe that the public interest would now be well served by declining to carry out the Commission's earlier Order.

(Continued from previous page) _____

Century Telephone of Wisconsin, Inc., Memorandum Opinion and Order on Remand, 15 FCC Rcd 8759, 8768-8769, para. 28 (2000) (finding unpublished letter rulings non-binding on the Commission when no party had actual knowledge of the letters); *Kojo Worldwide Corp. San Diego, California*, Memorandum Opinion and Order, 24 FCC Rcd 14890, 14894, para. 8 (2009) (rejecting argument that staff had promised non-enforcement of provisions of the Act); *Applications of Hinton Tel. Co.*, Memorandum Opinion and Order on Reconsideration, 10 FCC Rcd 11625, 11637, para. 42 (1995) (noting that when staff advice is contrary to the Commission's rules, the Commission may enforce its rules despite reliance by the public). This is especially so when the advice is not confirmed by more formal communications.

³⁷ Petition at 22; Reply Comments of Verizon Wireless, WC Docket Nos. 06-122, 05-337 at 5 (filed June 20, 2011).

³⁸ *NetworkIP, LLC v. FCC*, 548 F.3d 116, 125-128 (D.C. Cir. 2008); *Northeast Cellular v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990).

³⁹ *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969); *Northeast Cellular*, 897 F.2d at 1166.

APPENDIX F

Petitions for Reconsideration of the *Corr Wireless Order*

1. For the reasons stated below, we deny two petitions for reconsideration of the *Corr Wireless Order*,²⁶⁶⁴ one filed by a group of carriers including Allied Wireless (collectively, “Allied Wireless”), and one filed by SouthernLINC Wireless and the Universal Service for America Coalition (collectively, “SouthernLINC”).

1. Allied Wireless Petition for Reconsideration.

2. *Background.* In a pair of transactions in 2008, Verizon Wireless and Sprint Nextel each agreed to phase out high-cost universal service support over five years.²⁶⁶⁵ In the *Corr Wireless Order*, the Commission implemented those commitments, and, as relevant here, provided Verizon Wireless and Sprint with two options for electing a baseline against which to measure the phase-out. Sprint elected Option A, under which it would be permitted to receive no more than a specified percentage of its 2008 high-cost support each year—80 percent in 2009, 60 percent in 2010, 40 percent in 2011, 20 percent in 2012, and no support in 2013.²⁶⁶⁶ Verizon Wireless elected Option B, under which support would be calculated just the same as it otherwise would be, and then a carrier-specific further reduction would be applied, so that in 2009 it would receive 80 percent of the support it would otherwise receive, in 2010, 60 percent, in 2011, 40 percent, in 2012, 20 percent, and no support in 2013.²⁶⁶⁷ Broadly speaking—and simplifying somewhat—Option A offered carriers certainty about their future caps and would maximize the amount the carrier would receive if its number of eligible lines were to decrease (which might happen if the carrier were relinquishing its ETC designations, for example), while Option B provided less certainty but would maximize the amount the carrier would receive if its number of supported lines were to increase (which might happen because of customer acquisition).

3. In the *Corr Wireless Order*, the Commission also directed USAC to “reserve any reclaimed funds as a fiscally responsible down payment on proposed broadband universal service reforms, as recommended in the National Broadband Plan.”²⁶⁶⁸

4. Allied Wireless asserts that including Option B in the *Corr Wireless Order* was unlawful for two reasons. First, Allied Wireless argues that the Commission “violated” its “due process rights” as well as the Administrative Procedure Act (APA) because the Commission did not provide sufficient notice that it was “considering adopting a baseline methodology in this proceeding” or notice of the specific proposals under consideration.²⁶⁶⁹ Allied also argues that the Commission’s adoption of Option B was arbitrary and capricious.

²⁶⁶⁴ *High-Cost Universal Service Support*, WC Docket No. 05-337, CC Docket No. 96-45, Order and Notice of Proposed Rulemaking, 25 FCC Rcd 12854 (2010) (*Corr Wireless Order*).

²⁶⁶⁵ *See id.* at 12854, para. 1.

²⁶⁶⁶ *See id.* at 12860, para. 16 (setting forth Option A).

²⁶⁶⁷ *Id.* at 12861, para. 17 (setting forth Option B).

²⁶⁶⁸ *Id.* at 12862, para. 20. The Commission noted that to effectuate the decision to reserve these funds, two actions were required. First, for the purposes of calculating carrier contributions, it directed USAC to project that competitive ETC support in each state would be disbursed at the interim cap amount. Second, it temporarily waived section 54.709(b) of the Commission’s rules, which normally requires that any excess contributions received in one quarter be used to reduce the required contribution factor for the next quarter. *See id.* at 12862, paras. 21-22.

²⁶⁶⁹ Allied Wireless Petition for Reconsideration, WC Docket No. 05-337, at 12-13 (filed Oct. 4, 2010) (Allied Wireless Petition).

5. Allied Wireless also contends that the Commission's decision to reserve funds reclaimed from Sprint and Verizon Wireless, rather than to redistribute them to other carriers, was arbitrary and capricious. Specifically, Allied Wireless argues, "the Commission's decision that the *Interim Cap Order* does not require redistribution of the reclaimed support hinges on the agency's determination that Verizon [Wireless] and Sprint would remain 'eligible' to receive support even as this support is being surrendered" and that determination "is problematic" for a variety of reasons.²⁶⁷⁰

6. *Discussion.* We disagree with Allied Wireless that notice was required regarding the precise methodology for establishing the baseline for support to be phased down. The Commission required Sprint and Verizon Wireless to surrender support as a condition of its approval of transactions sought by those carriers. The Commission could have further specified in those adjudicatory Orders how the reductions would take place if the carriers accepted the conditions, but it did not. Instead, the Commission did so in the *Corr Wireless Order*. Importantly, that Order did not change any of the rules that govern how support calculations for carriers are generally made. Thus, Allied Wireless had no right protected by the APA or the Due Process Clause to notice and an opportunity to comment, because the Commission in the *Corr Wireless Order* only established the obligations it would impose on Verizon Wireless and Sprint as a part of those adjudicatory proceedings. Moreover, we are unaware of any precedent suggesting that any more notice was required to do in two orders what could have been done in one. We note that in a notice of proposed rulemaking released as part of the same Order, the Commission also proposed to make changes to the Commission's rules that *would* affect how support for carriers like Allied Wireless would be calculated.²⁶⁷¹

7. We likewise are not persuaded by Allied Wireless's second argument that the Commission's adoption of Option B was arbitrary and capricious. Specifically, Allied Wireless claims, "the Commission[] [was wrong in its] assertion that '[r]egardless of the option [Verizon and Sprint] choose, implementation of these options will not have an impact on other competitive ETCs.'"²⁶⁷² To the contrary, Allied Wireless argues, "the selection of 'Option B' by Verizon will adversely affect all other competitive ETCs."²⁶⁷³ If Verizon Wireless continues to gain lines in a state, claims Allied Wireless, it will receive a greater share of the support available under the interim cap, which results in a reduction of support for other competitive ETCs in that state.²⁶⁷⁴ In contrast, Allied Wireless asserts, under Option A, support would not increase (and thus would not decrease for other carriers), because Option A uses a frozen baseline.

8. Allied Wireless is mistaken. As an initial matter, Allied Wireless misunderstands how the phasedown for Sprint and Verizon Wireless works. Under both Option A and Option B, support for Sprint and Verizon Wireless (and all other carriers) is calculated precisely the same way that it was calculated prior to the *Corr Wireless Order*, except that, following the final calculation of support under the rules applicable to all carriers, USAC performs an additional step to apply any necessary reduction to support for Sprint and Verizon Wireless. Specifically, USAC compares the amount that Sprint and Verizon Wireless would otherwise receive to each company's specific cap amount and then distributes to each company the lesser of the two amounts. In other words, Allied Wireless's concern about line growth by Verizon Wireless (which elected Option B) is equally applicable to Option A. Under both options, any increase in lines by Sprint or Verizon Wireless in any state would be taken into account in determining support available to other carriers under the interim cap in that state. And that is the same situation Allied Wireless and other competitive ETCs were in before Sprint and Verizon Wireless were subject to any

²⁶⁷⁰ *Id.* at 16.

²⁶⁷¹ See *Corr Wireless Order*, 25 FCC Rcd at 12863-64, paras. 23-26.

²⁶⁷² Allied Wireless Petition at 15 (citing *Corr Wireless Order*, 25 FCC Rcd at 12860, para. 14).

²⁶⁷³ Allied Wireless Petition at 10.

²⁶⁷⁴ *Id.* at 9.

reductions. Put another way, both options have the same effect—which is to say no effect—on the calculation of support for Allied Wireless. But the larger point, and the fatal one for Allied Wireless’s claim, is that Allied Wireless is simply incorrect to assert that Option B has some sort of effect on the calculation of Allied Wireless’s support.

9. Allied Wireless’s principal argument with respect to the reserve account takes issue with the Commission’s conclusion that Sprint and Verizon Wireless remain “eligible” for support that they have agreed to give up. That determination is relevant to Allied Wireless because, under the terms of the *Interim Cap Order*, the amount of money each competitive ETC (like Sprint, Verizon Wireless or Allied Wireless) is eligible for determines how much support every other competitive ETC will receive. If Sprint and Verizon Wireless were not eligible for support they had agreed to give up, then more support would be available under the cap for carriers like Allied Wireless. We do not find Allied Wireless’s arguments on this point persuasive; to see why requires some explanation of how USAC calculates support and applies the interim cap.

10. First, USAC calculates, for the number of lines each competitive ETC reports, how much support the carrier is eligible for under the identical support rule.²⁶⁷⁵ For each state, USAC sums the amount that all competitive ETCs are eligible for under the identical support rule, and then compares that amount to the interim cap. If competitive ETCs are eligible for support exceeding the cap, USAC applies a state-specific reduction factor to ensure that support does not exceed the cap. As discussed above, to calculate final support amounts for Sprint and Verizon Wireless, USAC performs an additional step (and imposes a further reduction if necessary), to ensure that each carrier receives no more than it should pursuant to its support reduction plan.

11. As this description of the process makes clear, the question of what support a carrier is “eligible” for, in calculating the state-specific reduction factor for the purposes of the interim cap, is the amount that the carrier would receive, or is “eligible” for, under the identical support rule.

12. Understandably, Allied Wireless would have preferred the Commission to have adopted a different method to implement the reductions for Sprint and Verizon Wireless—one that would have resulted in Allied Wireless receiving additional support beyond that which it receives under the interim cap. But that does not mean that the Commission’s chosen approach is arbitrary and capricious. Indeed, to the contrary, the Commission reasonably decided that the public interest would be better served by declining to redistribute that support.²⁶⁷⁶ Though Allied Wireless wishes that the Commission would have had different view, it has not shown that the Commission’s decision was unlawful.

13. Allied Wireless next argues that, contrary to the Commission’s assertions otherwise, the support reductions imposed on Sprint and Verizon Wireless were not “voluntary,” and, says Allied Wireless, this means that the Commission’s conclusion that they remain “eligible” for support, as discussed above, “has no basis.”²⁶⁷⁷ But the reductions were voluntary: the Commission approved transactions involving each carrier on the condition that they give up support, and each carrier elected to go through with the transaction. Such a decision by a company is not an involuntary act. Even if Allied Wireless were right about that, however, its argument would still fail, because, as discussed above, the question of what support a carrier is “eligible” for, as relevant here, is the amount the carrier would receive under the identical support rule, not how much money the carrier is actually going to receive after all adjustments.

14. Allied Wireless also argues that construing Sprint and Verizon Wireless as “eligible” to receive the support they are not, in fact, receiving, violates section 254(e) of the Act, which requires that

²⁶⁷⁵ *Interim Cap Order*, 23 FCC Rcd at 8846, para. 27.

²⁶⁷⁶ *See Corr Wireless Order*, 25 FCC Rcd at 12858-59, paras. 10-11.

²⁶⁷⁷ Allied Wireless Petition at 17-18.

carriers receiving support shall use it “only for the provision, maintenance, and upgrading of facilities and services for which the support is intended.”²⁶⁷⁸ Allied Wireless argues that if Sprint and Verizon Wireless “were not compelled to relinquish support, but instead did so of their own free will, then [they] were violating the statute. Giving back the support forecloses any means of satisfying the statutory obligation to use the support in the manner specified in the statute.”²⁶⁷⁹ But Sprint and Verizon Wireless did not give back support—they agreed to have their support reduced over time. The statutory provision, by its terms, does not apply to support reclaimed in this manner. Allied Wireless’s argument suffers a second flaw, as well: it proves too much. Again, the amount of support a carrier is eligible for, in this context, is the amount the carrier would otherwise receive, based on its line counts, under the identical support rule. But the amount that any carrier receives is governed by the interim cap, as well. All carriers in states where the interim cap has an effect receive less than they are “eligible” for. Thus, under its own theory, Allied Wireless, like Sprint and Verizon Wireless, is not receiving the support for which it is “eligible,” and therefore is violating the statute.

15. Allied Wireless next argues that Sprint and Verizon Wireless’s commitments to forego support “would make it impossible for them to sustain” their status as ETCs, and that the Commission “did not examine the extent to which either [carrier] in fact currently meets the requirements” of competitive ETCs.²⁶⁸⁰ We conclude that neither argument has any bearing on the issues addressed in the *Corr Wireless Order*. If either carrier fails, either now or in the future, to satisfy any obligation imposed on it by virtue of its status as an ETC, that is a matter for the relevant designating entity in the first instance. Nor do we see why, in issuing an order detailing procedures for how support for the carriers would be reduced, the Commission was obliged to conduct any sort of investigation into whether they or their various operating company subsidiaries actually were, or ought to be, ETCs in the states where this Commission has granted ETC designation.

16. Allied Wireless’s final argument is that the Commission’s decision to reserve reclaimed funds was procedurally defective, because the Commission was obliged to provide notice and an opportunity for comment before it did so. That is not the case. The Commission established the temporary reserve in the *Corr Wireless Order* through two actions. First, for the purposes of calculating carrier contributions, it directed USAC to project that competitive ETC support in each state would be disbursed at the interim cap amount. The Commission’s rules provide that the Commission has the authority and responsibility to review and approve USAC’s projections and its calculation of the contribution factor each quarter without providing notice and an opportunity to comment.²⁶⁸¹ Second, the Commission temporarily waived section 54.709(b) of its rules, which normally requires that any excess contributions received in one quarter be used to reduce the required contribution factor for the next quarter. The notice and comment requirements in the APA only apply to rulemaking, however.²⁶⁸² Where, as here, the Commission relies on its general authority to waive one of its existing rules for good cause shown,²⁶⁸³ it is thus not required to first provide notice and an opportunity for comment.

17. We note, moreover, that Allied Wireless has been provided an opportunity to comment on the Commission’s decision to reserve reclaimed funds. In the *Corr Wireless Order*, in addition to deciding to reserve the funds reclaimed from Sprint and Verizon Wireless, the Commission issued a notice of proposed rulemaking seeking comment on its proposal to amend section 54.709(b) to enable the

²⁶⁷⁸ 47 U.S.C. § 254(e).

²⁶⁷⁹ Allied Wireless Petition at 18-19.

²⁶⁸⁰ *Id.* at 19.

²⁶⁸¹ See 47 C.F.R. § 54.709(a)(2), (a)(3).

²⁶⁸² See 5 U.S.C. § 553.

²⁶⁸³ See *Corr Wireless Order*, 25 FCC Rcd at 12862-63, para. 22 & n.46 (citing 47 C.F.R. § 1.3).

Commission to provide alternate instructions to USAC for implementing prior period adjustments.²⁶⁸⁴ That, the Commission explained, would serve the same purpose as the temporary waiver of section 54.709(b) it adopted in the same Order.²⁶⁸⁵ In other words, the Commission was seeking comment on its proposal to modify its rules to more readily do the very thing that petitioners fault the Commission for having done without providing notice. Any party that wished to comment on the merits of the decision to reserve funds had an opportunity to do so—and many parties did just that. In the Order, we consider and respond to such comments in adopting the proposed rule change, and we conclude that it is appropriate to create a broadband reserve account and modify our rules to facilitate the management of support funds accordingly.²⁶⁸⁶ We also direct USAC to wind down the *Corr Wireless* reserve account. And we note that Allied Wireless, in its petition for reconsideration, did not identify any issue that it or any other party has raised or would have raised that we have not now addressed.²⁶⁸⁷ For these reasons, we conclude that we are not required to alter our original decision to reserve funds or to provide additional opportunity for comment on that issue.

2. SouthernLINC Petition for Reconsideration

18. *Background.* SouthernLINC principally argues that the Commission had no authority to establish the broadband reserve fund under the Act, because if the Act did permit such a thing, the Act itself would be unconstitutional under both the Origination Clause and Taxing Clause.²⁶⁸⁸ It also challenges our action as arbitrary and capricious under the Administrative Procedure Act. We disagree on all points.

19. *Discussion.* The Origination Clause, which provides that a revenue bill must originate in the House of Representatives rather than the Senate, has no application here. The Supreme Court has explained that “a statute that creates a particular governmental program and that raises revenue to support that program, as opposed to a statute that raises revenue to support Government generally, is not a ‘Bill[] for raising Revenue’ within the meaning of the Origination Clause.”²⁶⁸⁹ The broadband reserve was not intended to “support Government generally.” It was instead designed to (and the statute requires that it must) support universal service consistent with the requirements of section 254 of the Act. While SouthernLINC complains that the Commission was vague about precisely how those funds would be spent, we do not think that raises any issue under the Constitution. The Commission was not vague about whether the funds would be spent on universal service programs—as opposed to being deposited into the United States Treasury to support government operations generally—and that is sufficient.²⁶⁹⁰ The relevant question under the Origination Clause is whether a statute “raises revenue to support Government generally,” and in our view, the broadband reserve clearly does not.²⁶⁹¹

²⁶⁸⁴ See *Corr Wireless Order*, 25 FCC Rcd at 12863, para. 25.

²⁶⁸⁵ See *id.*

²⁶⁸⁶ See *supra* Part VII.H.1.

²⁶⁸⁷ Cf. *U.S. Telecom Ass’n v. FCC*, 400 F.3d 29, 42 (D.C. Cir. 2005) (concluding that any failure to provide notice was harmless where petitioners could not identify any additional comment they would have made if notice had been properly given).

²⁶⁸⁸ SouthernLINC Petition for Partial Reconsideration, WC Docket No. 05-337. CC Docket No. 96-45, at 7-11 (filed Sept. 29, 2010) (SouthernLINC Petition).

²⁶⁸⁹ *United States v. Munoz-Flores*, 495 U.S. 385, 397-98 (1990).

²⁶⁹⁰ See *Texas Office of Pub. Util. Counsel v. FCC*, 183 F.3d 393, 427 (5th Cir. 1999) (rejecting a similar Origination Clause challenge to the Commission’s assessment of universal service contributions).

²⁶⁹¹ SouthernLINC also cites dicta in a footnote from *Munoz-Flores*, 495 U.S. at 400 n.7, seemingly to suggest that the reserve fund is unconstitutional because of an insufficient connection between the payors and beneficiaries of the fund. That would be so, SouthernLINC suggests, because there are no defined beneficiaries at all. We are not (continued...)

20. SouthernLINC's challenge under the Taxing Clause fails as well. SouthernLINC argues that the Act cannot be construed to permit the Commission to establish a tax, as opposed to a fee, because only Congress can create a tax. SouthernLINC further argues that the establishment of the broadband reserve must be understood to be a tax, rather than a fee, because the particular uses of the reserve fund were not established in the Order creating it.²⁶⁹² So, the argument goes, Congress could not, consistent with constitutional requirements, have delegated to the Commission the authority to establish the broadband reserve. We disagree.

21. As the Supreme Court has explained, "the delegation of discretionary authority under Congress' taxing power is subject to no constitutional scrutiny greater than that . . . applied to other nondelegation challenges."²⁶⁹³ Accordingly, whether assessments for the broadband reserve are characterized as a "tax" or a "fee" has no relevance to SouthernLINC's nondelegation claim.²⁶⁹⁴ In either case, the question in a nondelegation challenge is whether Congress has laid down an intelligible principle to guide the agency's actions.²⁶⁹⁵ We have no doubt that section 254 satisfies that threshold.²⁶⁹⁶

22. We are similarly unpersuaded by SouthernLINC's APA arguments. SouthernLINC argues that the *Corr Wireless Order* was procedurally defective in two respects. Specifically, SouthernLINC argues that the Commission failed to give adequate notice before it directed USAC to calculate the universal service contribution factor without regard to actual projected disbursements for individual competitive ETCs and temporarily waived section 54.709(b) of the Commission's rules.²⁶⁹⁷ The second of these complaints we have already discussed and rejected in the context of Allied Wireless's petition for reconsideration.²⁶⁹⁸

23. We are likewise unconvinced by SouthernLINC's assertion that the Commission must reconsider its decision to instruct USAC regarding how it should calculate projected demand for support. The Commission's rules provides that the Commission has the authority and responsibility to review and approve USAC's projections and its calculation of the contribution factor each quarter without providing notice and an opportunity to comment.²⁶⁹⁹ We acknowledge that, by its terms, section 54.709(a)(3) of the Commission's rules only provides that the Commission has up to 14 days to make such adjustments following issuance of a public notice of the proposed contribution factor.²⁷⁰⁰ But we do not think that
(Continued from previous page) _____

persuaded. The dicta SouthernLINC cites notes that a different case "might be present" if a funded program were "entirely unrelated" to the persons paying for it. *Id.* SouthernLINC apparently believes such a case would be different, though it makes no argument that it would be. In any event, this is not such a case. There is no less connection between these beneficiaries and payors and the beneficiaries and payors under any other of the support mechanisms provided for in section 254, and we do not think those raise any constitutional issue.

²⁶⁹² SouthernLINC Petition at 8-9.

²⁶⁹³ *Skinner v. Mid-America Pipeline Co.*, 490 U.S. 212, 223 (1989).

²⁶⁹⁴ *See id.*; *see also Fla. Power & Light Co. v. United States*, 846 F.2d 765, 771 (D.C. Cir. 1988). The question whether an assessment is a tax or a fee is a relevant question under the Origination Clause, but, as explained above, assessments for the broadband reserve are fees for that purpose.

²⁶⁹⁵ *Skinner*, 490 U.S. at 218-19.

²⁶⁹⁶ Section 254(b) of the Act sets forth a list of principles on which the Commission and the Joint Board must base universal service policies. *See* 47 U.S.C. § 254(b)(1)-(7). And universal service contributions collected to subsidize those policies, once enacted, must be "equitable and nondiscriminatory." 47 U.S.C. § 254(d).

²⁶⁹⁷ *See* SouthernLINC Petition at 11-16.

²⁶⁹⁸ *See supra* paras. 16-17.

²⁶⁹⁹ *See* 47 C.F.R. § 54.709(a)(2), (a)(3).

²⁷⁰⁰ *See* 47 C.F.R § 54.709(a)(3).

provision forbids the Commission from instructing USAC to alter its projections prior to that time or in a different manner.²⁷⁰¹ Rather, it acts as a shot-clock provision, telling USAC that if the Commission has not acted to revise its projections within 14 days of the projections being published in a public notice, the calculated contribution factor set out in the public notice shall take effect. In other words, the rule simply provides guidance to USAC—it provides no rights to a party like SouthernLINC. Even if the rules were construed as SouthernLINC seems to suggest, however, we conclude that any deviation was harmless: By instructing USAC to alter its projections in advance, the Commission provided more notice than it would have provided if it followed the procedure set forth in section 54.709(a)(3).

24. SouthernLINC's final argument is that the Order was arbitrary and capricious because the Commission allegedly did not provide an adequate explanation of why it did not permit support reclaimed from Sprint and Verizon Wireless to be redistributed to other competitive ETCs under the identical support rule.²⁷⁰² That is because, according to SouthernLINC, the Commission is required to provide support under the identical support rule until that rule is replaced by another rule. We conclude that SouthernLINC's argument on this point is moot, because we have now done what SouthernLINC claims we were required to do—we have eliminated the identical support rule. Even if we had not done so, however, we would reject SouthernLINC's argument. At the time SouthernLINC filed its petition for reconsideration, the identical support rule was not the only rule that determined the amount of support. Instead, support for competitive ETCs like SouthernLINC was capped under the *Interim Cap Order*.²⁷⁰³ And, as explained above, nothing in the *Corr Wireless Order* altered how support for SouthernLINC or other competitive ETCs was calculated.²⁷⁰⁴ Though SouthernLINC does not develop its argument on this point, it appears that its complaint, based on the theory that carriers like it are entitled to support under the identical support rule, is directed against the *Interim Cap Order*, in which the Commission capped competitive ETC support and ceased providing support solely under the identical support rule. The time for revisiting that Order has long since passed, and we decline to do so now.

²⁷⁰¹ Indeed, this is not the first time that a contribution factor projection was altered outside the 14-day window provided for in 47 C.F.R. § 54.709(a)(3). See Proposed Fourth Quarter 2005 Universal Service Contribution Factor, 20 FCC Rcd 14683, 14684 (Wireline Comp. Bur. 2005) (adjusting USAC projections to account for Hurricane Katrina in the Public Notice setting out the proposed contribution factor, and noting that the Commission would have 14 days to alter those projections pursuant to 54.709(a)(3)).

²⁷⁰² See SouthernLINC Petition at 16-17.

²⁷⁰³ 23 FCC Rcd 8834.

²⁷⁰⁴ See *supra* paras. 6-7.

APPENDIX G

Rural Association Proposed Rule Changes for USF Reform

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Part 32 – Uniform System of Accounts for Telecommunications Companies

* * *

Subpart E – Instructions for Expense Accounts

* * *

§ 32.6540 Access expense.

(a) This account shall include amounts paid by interexchange carriers or other exchange carriers to another exchange carrier or network provider for the provision of carrier's carrier access. This account shall also include expenses related to facilities and bandwidth capacity associated with connecting the Broadband Access Service Connection Point to the Internet backbone (Middle Mile expense).

(b) Subsidiary record categories shall be maintained in order that the entity may separately report interstate and intrastate carrier's carrier expense. Such subsidiary record categories shall be reported as required by Part 43 of this Commission's Rules and Regulations.

* * *

Part 36 - Jurisdictional Separations

* * *

Subpart B – Telecommunications Property

* * *

CENTRAL OFFICE EQUIPMENT

* * *

§ 36.126 Circuit equipment – Category 4.

(a) For the purpose of this section, the term "Circuit Equipment" encompasses the Radio Systems and Circuit Equipment contained in Accounts 2230 through 2232 respectively. It includes central office equipment, other than switching equipment and automatic message recording equipment, which is used to derive communications transmission channels or which is used for the amplification, modulation, regeneration, testing, balancing or control of signals transmitted over communications transmission channels. Examples of circuit equipment in general use include:

- (1) Carrier telephone and telegraph system terminals.
- (2) Telephone and telegraph repeaters, termination sets, impedance compensators, pulse link repeaters, echo suppressors and other intermediate transmission amplification and balancing equipment except that included in switchboards.
- (3) Radio transmitters, receivers, repeaters and other radio central office equipment except message switching equipment associated with radio systems.
- (4) Composite ringers, line signaling and switching pad circuits.
- (5) Concentration equipment.
- (6) Composite sets and repeating coils.
- (7) Program transmission amplifiers, monitoring devices and volume indicators.
- (8) Testboards, test desks, repair desks and patch bays, including those provided for test and control, and for telegraph and transmission testing.

(b) For apportionment among the operations, the cost of circuit equipment is assigned to the following subsidiary categories:

- (1) *Exchange Circuit Equipment - Category 4.1.*
 - (i) Wideband Exchange Line Circuit Equipment - Category 4.11.
 - (ii) Exchange Trunk Circuit Equipment (Wideband and Non-Wideband) - Category 4.12.
 - (iii) Exchange Line Circuit Equipment Excluding Wideband - Category 4.13.

(2) *Interexchange Circuit Equipment - Category 4.2.*

(i) Interexchange Circuit Equipment Furnished to Another Company for Interstate Use - Category 4.21.

(ii) Interexchange Circuit Equipment Used for Wideband Services including Satellite and Earth Station Equipment used for Wideband Service - Category 4.22.

(iii) All Other Interexchange Circuit Equipment - Category 4.23.

(3) *Host/Remote Message Circuit Equipment - Category 4.3*

(4) Middle Mile Circuit Equipment – Category 4.4

~~(4)~~ (5) In addition, for the purpose of identifying and separating property associated with special services, circuit equipment included in Categories 4.12 (other than wideband equipment) 4.13 and 4.23 is identified as either basic circuit equipment, *i.e.*, equipment that performs functions necessary to provide and operate channels suitable for voice transmission (telephone grade channels), or special circuit equipment, *i.e.*, equipment that is peculiar to special service circuits. Carrier telephone terminals and carrier telephone repeaters are examples of basic circuit equipment in general use, while audio program transmission amplifiers, bridges, monitoring devices and volume indicators, telegraph carrier terminals and telegraph repeaters are examples of special circuit equipment in general use. Cost of exchange circuit equipment included in Categories 4.12 and 4.13 and the interexchange circuit equipment in Categories 4.21, 4.22 and 4.23 are segregated between basic circuit equipment and special circuit equipment only at those locations where amounts of interexchange and exchange special circuit equipment are significant. Where such segregation is not made, the total costs in these categories are classified as basic circuit equipment.

~~(5)~~ (6) Effective July 1, 2001, through June 30, 2011, study areas subject to price cap regulation, pursuant to § 61.41, shall assign the average balances of Accounts 2230 through 2232 to the categories/subcategories as specified in §§ 36.126(b)(1) through (b)(4) based on the relative percentage assignment of the average balances of Accounts 2230 through 2232 costs to these categories/subcategories during the twelve month period ending December 31, 2000.

* * *

(g) Apportionment of Middle Mile Circuit Equipment Among the Operations.

(1) Middle Mile Circuit Equipment – Category 4.4. This category includes circuit equipment associated with connecting the Broadband Access Service Connection Point to the Internet backbone.

(i) Middle Mile Circuit Equipment shall be directly assigned to the Interstate Jurisdiction and allocated to private line services.

* * *

CABLE AND WIRE FACILITIES

* * *

§ 36.154 Exchange Line Cable and Wire Facilities (C&WF) – Category 1 – apportionment procedures.

(a) *Exchange Line C&WF-Category 1.* The first step in apportioning the cost of exchange line cable and wire facilities among the operations is the determination of an average cost per working loop. This average cost per working loop is determined by dividing the total cost of exchange line cable and wire Category 1 in the study area by the sum of the working loops described in subcategories listed below. The subcategories are:

Subcategory 1.1 - State Private Lines and State WATS Lines. This subcategory shall include all private lines and WATS lines carrying exclusively state traffic as well as private lines and WATS lines carrying both state and interstate traffic if the interstate traffic on the line involved constitutes ten percent or less of the total traffic on the line.

Subcategory 1.2 - Interstate private lines and interstate WATS lines. This subcategory shall include all private lines and WATS lines that carry exclusively interstate traffic as well as private lines and WATS lines carrying both state and interstate traffic if the interstate traffic on the line involved constitutes more than ten percent of the total traffic on the line.

Subcategory 1.3 - Subscriber or common lines that are jointly used for local exchange service and exchange access for state and interstate interexchange services.

(b) The costs assigned to subcategories 1.1 and 1.2 shall be directly assigned to the appropriate jurisdiction.

(c) Effective January 1, 1986, 25 percent of the costs assigned to subcategory 1.3 shall be allocated to the interstate jurisdiction.

(d)-(f) [Reserved]

(g) Effective July 1, 2001, through June 30, 2011, all study areas shall apportion Subcategory 1.3 Exchange Line C&WF among the jurisdictions as specified in § 36.154(c). Direct assignment of subcategory Categories 1.1 and 1.2 Exchange Line C&WF to the jurisdictions shall be updated annually as specified in § 36.154(b).

(h) *Additional Interstate Assignment.* Effective July 1, 2012 and in each calendar year thereafter, rate of return study areas shall increase the apportionment of Subcategory 1.3 Exchange Line C&WF investment to the interstate jurisdiction based on the Broadband Take Rate. The Broadband Take Rate is the ratio of study area Broadband Lines in service to total Broadband Lines and voice-only common lines in service. The Additional Interstate Assignment attributable to the Broadband Take Rate is equal to the excess of the Broadband Take Rate over 25 percent; provided, however, that where the Broadband Take Rate exceeds 50 percent, the portion of the Broadband Take Rate over 50 percent shall be reduced by one-half, such that the Broadband Take Rate for purposes of calculating the Additional Interstate Assignment shall not exceed 75 percent.

(i) The Additional Interstate Assignment produced by subsection (h) shall be phased-in as follows:

- (1) 0.0415 for the period July 1, 2012 through December 31, 2012;
- (2) 0.166 in 2013;
- (3) 0.25 in 2014;
- (4) 0.333 in 2015;
- (5) 0.416 in 2016;
- (6) 0.50 in 2017;
- (7) 0.583 in 2018;
- (8) 0.667 in 2019;
- (9) 0.75 in 2020;
- (10) 0.833 in 2021;
- (11) 0.916 in 2022;
- (12) 1.000 in 2023 and subsequent years.

* * *

§ 36.158 Middle Mile Cable and Wire Facilities (C&WF) – Category 5 – apportionment procedures.

(a) Middle Mile C&WF – Category 5. The cost of Middle Mile facilities and services used for connecting the Broadband Access Service connection Point to the Internet backbone.

(1) The cost of C&WF applicable to this category shall be directly assigned to the Interstate jurisdiction and allocated to private line services

* * *

Subpart D – Operating Expenses and Taxes

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§36.354 Access expense--Account 6540.

(a) This account includes access charges paid to exchange carriers for exchange access service. These are directly assigned to the appropriate jurisdiction based on subsidiary record categories or on analysis and study.

- (1) Beginning July 1, 2012, Middle Mile access expense shall be directly assigned to the Interstate jurisdiction and allocated to private line services.

* * *

§36.392 General and administrative--Account 6720.

- (a) These expenses are divided into two categories:

(1) Extended Area Services (EAS).

(2) All other.

- (i) Beginning July 1, 2012, for purposes of computing interstate cost assignments, General and Administrative Expenses shall be limited to the lesser of:

(A) The actual average monthly General and Administrative Expenses for the study period; or

(B) A monthly per-loop amount computed according to paragraphs (a)(2)(i)(B)(1), (a)(2)(i)(B)(2), (a)(2)(i)(B)(3) and (a)(2)(i)(B)(4) of this section, using study period average loops.

(1) For study areas with 6,000 or fewer working loops the amount per working loop shall be $\$42.337 - (.00328 \times \text{the number of working loops})$, or, $\$63,000 \div \text{the number of working loops}$, whichever is greater;

(2) For study areas with more than 6,000 but fewer than 17,887 working loops, the monthly amount per working loop shall be $\$3.007 + (117,990 \div \text{the number of working loops})$; and

(3) For study areas with 17,887 or more working loops, the amount per working loop shall be $\$9.562$.

(4) Beginning, January 1, 2013, the monthly per-loop amount computed according to paragraphs (a)(2)(i)(B)(1) through, (a)(2)(i)(B)(3) of this section shall be adjusted each year to reflect the annual percentage change in the United States Department of Commerce's Gross Domestic Product-Chain Price Index (GDP-CPI).

(5) If a study area's monthly per-loop General and Administrative Expenses require limitation, the per-loop, per-month amount shall be multiplied by 12 months and then by total loops for use in determining maximum expenses permissible for interstate assignment.

- (ii) General and Administrative Expenses not assigned to interstate pursuant to §36.392(a)(i)(A or B) shall be assigned to the intrastate jurisdiction.

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Subpart F – Universal Service Fund

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§ 36.606 Limitations on Loop Plant Capital Expenditures Eligible for Support

(a) For purposes of determining support limitations on loop plant capital expenditures for non-price cap carriers, the following definitions shall apply:

- (1) *Total Loop Investment* is the current gross balance of loop investment adjusted for inflation using the Department of Commerce Gross Domestic Product Chain-type Price Index (GDP-CPI).
- (2) *Total Allowed Loop Expenditure* is the amount of future loop plant that would qualify for support.
- (3) *Annual Allowed Loop Expenditure* is the portion of the Total Allowed Loop Expenditure eligible for support in the investment year.
- (4) *Excess Loop Expenditure* is the amount of loop plant investment in a given year that exceeds the Annual Allowed Loop Expenditure. The Excess Loop Expenditure may be carried forward to future years and be included in the future Annual Allowed Loop Expenditure to the extent permitted within the Total Allowed Loop Expenditure.
- (5) *Loop Depreciation Factor* is the ratio of the total loop accumulated depreciation associated with the total loop investment. This calculation uses the depreciation and investment amounts of the Data Year.
- (6) Data Year is defined as the year prior to the year the Annual Allowed Loop Expenditure is made.

(b) Beginning January 1, 2012, Telecommunications Plant In Service (TPIS) investment in unseparated (i.e. state and interstate) gross plant investment in Exchange Line Circuit Equipment Excluding Wideband Category 4.13, Wideband Exchange Line Circuit Equipment Category 4.11, Wideband and Exchange Trunk Cable and Wire Facilities (C&WF) Category 2, and Exchange Line Cable and Wire Facilities (C&WF) Subcategory 1.3 allowed for inclusion in annual data submissions and support calculations prescribed under this section and in conformity with §54.1104 include any capital expenditures as described in § 36.606(d) and any Excess Loop Expenditure, but cannot exceed the Annual Allowed Loop Expenditure.

(c) A company will determine the limitations on loop plant capital expenditures for inclusion in loop costs by application of the rules in this section to the loop portion of Account 2230, Central Office Transmission, and the loop portion of Account 2410, Cable and Wire facilities. The limitations on loop plant capital expenditures will be applied to Exchange Line Circuit Equipment Excluding Wideband Category 4.13, Wideband Exchange Line

Circuit Equipment Category 4.11, Wideband and Exchange Trunk Cable and Wire Facilities (C&WF) Category 2, and Exchange Line Cable and Wire Facilities (C&WF) Subcategory 1.3 through application of the categorization and subcategorization procedures prescribed in this section.

(d) For purposes of this section, the term “capital expenditures” equals the cost of loop plant booked to Account 2001, TPIS, including Account 2230, Central Office Transmission, and Account 2410, Cable and Wire Facilities during the Data Year. Such costs will be determined consistent with the requirements of §32.2000. Additionally, capital expenditures as used in this section will include the amounts, if any, charged during the Data Year to Account 2681, Capital Leases associated with accounts 2230 or 2410.

(e) For inclusion in Annual Allowed Loop Expenditure, capital expenditures must be for the addition to loop equipment and facilities as referenced in § 36.606(c) that support transmission of broadband between the carrier’s central office and end user customer premises or for equipment in the carrier’s central office that supports broadband connections for end user customers.

(f) Annual Allowed Loop Expenditure is equal to the Total Loop Investment multiplied by the Annual Allowed Loop Expenditure Factor, plus adjustments, if any, pursuant to § 36.606(i), but cannot exceed the Total Allowed Loop Expenditure.

(1) The Annual Allowed Loop Expenditure Factor is arrived at by applying the following formula:

Annual Allowed Loop Expenditure Factor = (0.15 * Loop Depreciation Factor + 0.05)

(2) The Total Allowed Loop Expenditure is the Total Loop Investment multiplied by the Loop Depreciation Factor. Total Loop Investment is calculated by taking the Data Year year-end balances of the categories and subcategories referenced in § 36.606(c) and adjusting these balances by applying the inflation factor based on Vintages where possible; otherwise the calculated year the loop plant was put in service. The inflation factor to be used will be based on the Department of Commerce GDP-CPI.

(3) Carriers subject to this section will recalculate Annual Allowed Loop Expenditure for each Data Year based on the procedures established in this section. In the event capital expenditures for loop plant are below Annual Allowed Loop Expenditure for a Data Year, there will be no carry forward to future years of unused Annual Allowed Loop Expenditure. The recalculation of Annual Allowed Loop Expenditure for each Data Year will reflect the revised Annual Allowed Loop Expenditure, Loop Depreciation Factor, Total Loop Investment, and Total Allowed Loop Expenditure for the preceding year-end. Year-end calculations will reflect plant additions, plant retirements and depreciation expense during the preceding year. This method will allow for increases in Annual Allowed Loop Expenditure from year to year in the event a low level of capital expenditures is made during a year.

(g) A carrier subject to this section will maintain separate records of accumulated Excess Loop Expenditure for accounts referenced in § 36.606 (c) for the assets in addition to the corresponding depreciation accounts. Excess Loop Expenditure for a year, for an account, are equal to capital expenditures for that account in excess of Annual Allowed Loop Expenditure for the year, if any. Excess Loop Expenditure for the Data Year for each account are added to an accumulated Excess Loop Expenditure account. In the event a carrier makes capital expenditures for an account at a level below Annual Allowed Loop Expenditure for the account, the carrier may reduce accumulated Excess Loop Expenditure effective the Data Year by an amount up to, but not in excess of, the amount by which Annual Allowed Loop Expenditure for the Data year exceeds capital expenditures for the account during the same year.

(h) Carriers subject to this section will follow the requirements for depreciation accounting and computation of depreciation rates prescribed at § 32.2000(g).

(i) A carrier subject to this section may make adjustments to the Annual Allowed Loop Expenditure for any given year for loop capital expenditures associated with any of the following: 1) areas where there are currently no existing wireline local loop facilities in the support study area, 2) areas where grants funds are used, 3) areas covered by a loan that was in place by January 1, 2012, and 4) projects where carrier, prior to January 1, 2012, had awarded a contract to vendor for construction. A carrier will add the applicable adjustment to the amount of Annual Allowed Loop Expenditure for the year in which the additions to plant are booked to Loop Plant in Service.

(j) In addition to the Annual Allowed Loop Expenditure, a carrier subject to this section may make normal maintenance and routine upgrades to its loop investment. Carriers will be allowed to invest up to five percent (5%) of the Total Loop Investment as described in § 36.606(f) per year. This annual amount shall not be factored into any limitation, cap or reduction of support listed in or as a result of § 36.606.

(k) For instances where a carrier has an Annual Allowed Loop Expenditure that is less than \$4 million, the carrier shall be allowed to increase their Annual Allowed Loop Expenditure to either \$4 million or the Total Allowed Loop Expenditure, whichever is less.

* * *

CALCULATION OF EXPENSE ADJUSTMENT – ADDITIONAL INTERSTATE EXPENSE ALLOCATION

§ 36.631 Expense adjustment.

(a)-(b) [Reserved]

(c) Beginning January 1, 1988, for study areas reporting 200,000 or fewer working loops pursuant to § 36.611(h), the expense adjustment (additional interstate expense allocation) is equal to the sum of paragraphs (c)(1) through (2) of this section. After January 1, 2000, the expense adjustment (additional interstate expense allocation) for non-rural telephone companies serving

study areas reporting 200,000 or fewer working loops pursuant to § [36.611](#)(h) shall be calculated pursuant to § [54.309](#) of this Chapter or § [54.311](#) of this Chapter (which relies on this part), whichever is applicable.

- (1) Sixty-five percent of the study area average unseparated loop cost per working loop as calculated pursuant to § [36.622](#)(b) in excess of 115 percent of the national average for this cost but not greater than 150 percent of the national average for this cost as calculated pursuant to § [36.622](#)(a) multiplied by the number of working loops reported in § [36.611](#)(h) for the study area; and
 - (2) Seventy-five percent of the study area average unseparated loop cost per working loop as calculated pursuant to § [36.622](#)(b) in excess of 150 percent of the national average for this cost as calculated pursuant to § [36.622](#)(a) multiplied by the number of working loops reported in § [36.611](#)(h) for the study area.
- (d) Beginning January 1, 1998, for study areas reporting more than 200,000 working loops pursuant to § [36.611](#)(h), the expense adjustment (additional interstate expense allocation) is equal to the sum of paragraphs (d)(1) through (4) of this section. After January 1, 2000, the expense adjustment (additional interstate expense allocation) for non-rural telephone companies serving study areas reporting more than 200,000 working loops pursuant to § [36.611](#)(h) shall be calculated pursuant to § [54.309](#) of this chapter or § [54.311](#) of this chapter (which relies on this part), whichever is applicable.

- (1) Ten percent of the study area average unseparated loop cost per working loop as calculated pursuant to § [36.622](#)(b) in excess of 115 percent of the national average for this cost but not greater than 160 percent of the national average for this cost as calculated pursuant to § [36.622](#)(a) multiplied by the number of working loops reported in § [36.611](#)(h) for the study area;
 - (2) Thirty percent of the study area average unseparated loop cost per working loop as calculated pursuant to § [36.622](#)(b) in excess of 160 percent of the national average for this cost but not greater than 200 percent of the national average for this cost as calculated pursuant to § [36.622](#)(a) multiplied by the number of working loops reported in § [36.611](#)(h) for the study area;
 - (3) Sixty percent of the study area average unseparated loop cost per working loop as calculated pursuant to § [36.622](#)(b) in excess of 200 percent of the national average for this cost but not greater than 250 percent of the national average for this cost as calculated pursuant to § [36.622](#)(a) multiplied by the number of working loops reported in § [36.611](#)(h) for the study area; and
 - (4) Seventy-five percent of the study area average unseparated loop cost per working loop as calculated pursuant to § [36.622](#)(b) in excess of 250 percent of the national average for this cost as calculated pursuant to § [36.622](#)(a) multiplied by the number of working loops reported in § [36.611](#)(h) for the study area.
- (e) Beginning April 1, 1989, the expense adjustment calculated pursuant to § [36.631](#)(c) and (d) shall be adjusted each year to reflect changes in the size of the Universal Service Fund resulting from adjustments calculated pursuant to § [36.612](#)(a) made during the previous year. If the resulting amount exceeds the previous year's fund size, the difference will be added to the amount calculated pursuant to § [36.631](#)(c) and (d) for the following year. If the adjustments made during

the previous year result in a decrease in the size of the funding requirement, the difference will be subtracted from the amount calculated pursuant to § [36.631](#)(c) and (d) for the following year.

(f) Subsequent to July 1, 2012, the interstate expense adjustment attributable to high cost loop support shall be adjusted pursuant to § 54.1103.

APPENDIX TO PART 36 – GLOSSARY

The descriptions of terms in this glossary are broad and have been prepared to assist in understanding the use of such terms in the separation procedures. Terms which are defined in the text of this part are not included in this glossary.

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Broadband Access Service Connection Point - the network equipment located in a telephone company serving wire center where broadband traffic from one or more telephone company serving wire centers is aggregated.

* * *

Broadband Line – loop equipment and facilities that support transmission of voice and broadband data, or broadband data only, between the carrier’s central office and end user customer premises, at a minimum downstream speed of 256 Kbps.

* * *

Middle Mile - broadband transmission facilities and services beyond the Broadband Access Service Connection Point as well as facilities and services necessary to connect to the Internet backbone.

* * *

Part 54 - Universal Service

* * *

Subpart D – Universal Service Support for High Cost Areas

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§ 54.305 Reserved Sale or transfer of exchanges.

~~(a) The provisions of this section are not applicable to the sale or transfer of exchanges between non-rural carriers after the complete phase-down of interim hold-harmless support, pursuant to § 54.311, for the non-rural carriers subject to the transaction.~~

~~(b) Except as provided in paragraph (c) of this section, a carrier that acquires telephone exchanges from an unaffiliated carrier shall receive universal service support for the acquired exchanges at the same per-line support levels for which those exchanges were eligible prior to the transfer of the exchanges. If the acquired exchanges are incorporated into an existing rural incumbent local exchange carrier study area, the rural incumbent local exchange carrier shall maintain the costs associated with the acquired exchanges separate from the costs associated with its pre-acquisition study area. The transferred exchanges may be eligible for safety valve support for loop-related costs pursuant to paragraph (d) of this section.~~

~~(c) A carrier that has entered into a binding agreement to buy or acquire exchanges from an unaffiliated carrier prior to May 7, 1997 will receive universal service support for the newly acquired lines based upon the average cost of all of its lines, both those newly acquired and those it had prior to execution of the sales agreement.~~

~~(d) Transferred exchanges in study areas operated by rural telephone companies that are subject to the limitations on loop-related universal service support in paragraph (b) of this section may be eligible for a safety valve loop cost expense adjustment based on the difference between the rural incumbent local exchange carrier's index year expense adjustment and subsequent year loop cost expense adjustments for the acquired exchanges. Safety valve loop cost expense adjustments shall only be available to rural incumbent local exchange carriers that, in the absence of restrictions on high-cost loop support in § 54.305(b), would qualify for high-cost loop support for the acquired exchanges under § 36.631 of this chapter.~~

~~(1) For carriers that buy or acquire telephone exchanges on or after January 10, 2005 from an unaffiliated carrier, the index year expense adjustment for the acquiring carrier's first year of operation shall equal the selling carrier's loop-related expense adjustment for the transferred exchanges for the 12-month period prior to the transfer of the exchanges. At the acquiring carrier's option, the first~~

year of operation for the transferred exchanges, for purposes of calculating safety valve support, shall commence at the beginning of either the first calendar year or the next calendar quarter following the transfer of exchanges. For the first year of operation, a loop cost expense adjustment, using the costs of the acquired exchanges submitted in accordance with §§ 36.611 and 36.612 of this chapter, shall be calculated pursuant to § 36.631 of this chapter and then compared to the index year expense adjustment. Safety valve support for the first period of operation will then be calculated pursuant to paragraph (d)(3) of this section. The index year expense adjustment for years after the first year of operation shall be determined using cost data for the first year of operation of the transferred exchanges. Such cost data for the first year of operation shall be calculated in accordance with §§ 36.611, 36.612 and 36.631 of this chapter. For each year, ending on the same calendar quarter as the first year of operation, a loop cost expense adjustment, using the loop costs of the acquired exchanges, shall be submitted and calculated pursuant to §§ 36.611, 36.612, and 36.631 of this chapter and will be compared to the index year expense adjustment. Safety valve support for the second year of operation and thereafter will then be calculated pursuant to paragraph (d)(3) of this section.

(2) For carriers that bought or acquired exchanges from an unaffiliated carrier before January 10, 2005, and are not subject to the exception in paragraph (e) of this section, the index year expense adjustment for acquired exchange(s) shall be equal to the rural incumbent local exchange carrier's high cost loop expense adjustment for the acquired exchanges calculated for the carrier's first year of operation of the acquired exchange(s). At the carrier's option, the first year of operation of the transferred exchanges shall commence at the beginning of either the first calendar year or the next calendar quarter following the transfer of exchanges. The index year expense adjustment shall be determined using cost data for the acquired exchange(s) submitted in accordance with §§ 36.611 and 36.612 of this chapter and shall be calculated in accordance with § 36.631 of this chapter. The index year expense adjustment for rural telephone companies that have operated exchanges subject to this section for more than a full year on the effective date of this paragraph shall be based on loop cost data submitted in accordance with § 36.612 of this chapter for the year ending on the nearest calendar quarter following the effective date of this paragraph. For each subsequent year, ending on the same calendar quarter as the index year, a loop cost expense adjustment, using the costs of the acquired exchanges, will be calculated pursuant to § 36.631 of this chapter and will be compared to the index year expense adjustment. Safety valve support is calculated pursuant to paragraph (d)(3) of this section.

(3) Up to fifty (50) percent of any positive difference between the transferred exchanges loop cost expense adjustment and the index year expense adjustment will be designated as the transferred exchange's safety valve loop cost expense adjustment and will be available in addition to the per line loop related support transferred from the selling carrier to the acquiring carrier pursuant to §

~~54.305(b). In no event shall a study area's safety valve loop cost expense adjustment exceed the difference between the carrier's study area loop cost expense adjustment calculated pursuant to § 36.631 of this chapter and transferred support amounts available to the acquired exchange(s) under paragraph (b) of this section. Safety valve support shall not transfer with acquired exchanges.~~

~~(e) The sum of the safety valve loop cost expense adjustment for all eligible study areas operated by rural telephone companies shall not exceed five (5) percent of the total rural incumbent local exchange carrier portion of the annual nationwide loop cost expense adjustment calculated pursuant to § 36.603 of this chapter. The five (5) percent cap on the safety valve mechanism shall be based on the lesser of the rural incumbent local exchange carrier portion of the annual nationwide loop cost expense adjustment calculated pursuant to § 36.603 of this chapter or the sum of rural incumbent local exchange carrier expense adjustments calculated pursuant to § 36.631 of this chapter. The percentage multiplier used to derive study area safety valve loop cost expense adjustments for rural telephone companies shall be the lesser of fifty (50) percent or a percentage calculated to produce the maximum total safety valve loop cost expense adjustment for all eligible study areas pursuant to this paragraph. The safety valve loop cost expense adjustment of an individual rural incumbent local exchange carrier also may be further reduced as described in paragraph (d)(3) of this section.~~

~~(f) Once an acquisition is complete, the acquiring rural incumbent local exchange carrier shall provide written notice to the Administrator that it has acquired access lines that may be eligible for safety valve support. Rural telephone companies also shall provide written notice to the Administrator defining their index year for those years after the first year of operation for~~

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Subpart H – Administration

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§ 54.702 Administrator's functions and responsibilities.

(b) The Administrator, and the divisions therein, shall be responsible for administering the schools and libraries support mechanism, the rural health care support mechanism, the high cost support mechanism, and the low income support mechanism.

(b) The Administrator shall be responsible for billing contributors, collecting contributions to the universal service support mechanisms, and disbursing universal service support funds.

(c) The Administrator may not make policy, interpret unclear provisions of the statute or rules, or interpret the intent of Congress. Where the Act or the Commission's rules are

unclear, or do not address a particular situation, the Administrator shall seek guidance from the Commission.

* * *

(h) The Administrator shall report quarterly to the Commission on the disbursement of universal service support program funds. The Administrator shall keep separate accounts for the amounts of money collected and disbursed for eligible schools and libraries, rural health care providers, low-income consumers, and high-cost and insular areas. The Administrator's quarterly report for 3rd quarter, filed on or about May 2 annually, shall contain projected annual funding requirements for the Connect America Fund, including all high cost funding components, for Price Cap and Rate of Return carriers and the Mobility Fund.

* * *

New Subpart M – Connect America Fund for Rural Rate of Return Carriers

§ 54.1100 Terms and Definitions

(a) For purposes of determining Connect America Fund (CAF) support for rural rate of return carriers, the following definitions shall apply:

(1) *Broadband Access Service Connection Point* – the network equipment located in a telephone company serving wire center where broadband traffic from one or more telephone company service wire centers is aggregated.

(2) *Broadband Line*- loop equipment and facilities that support transmission of voice and broadband data, or broadband data only, between the carrier's central office and end user customer premises, at a minimum downstream speed of 256 Kbps.

(3) *Broadband Take Rate* – a percentage representing the extent to which a telephone company's customers adopt broadband services. For purposes of computing CAF support, a telephone company's Broadband Take Rate is the ratio of study area Broadband Lines in service to total Broadband Lines and voice-only common lines in service.

(4) *Middle Mile* - broadband transmission facilities and services beyond the Broadband Access Service Connection Point as well as facilities and services necessary to connect to the Internet backbone.

(5) *Second Mile* - broadband transmission facilities between the telephone company end office and the Broadband Access Service Connection Point.

(6) *Rural Broadband Benchmark* - for purposes of computing CAF support for a rate of return carrier, the Rural Broadband Benchmark includes a fixed per-line amount that applies to all study areas and a variable study area-specific amount, as more fully defined below.

(7) *Rural Broadband Network Transmission Costs* – costs associated with providing

Broadband Lines, Second Mile and Middle Mile transmission services on a regulated, common carriage basis, as more fully defined below.

§ 54.1101 Connect America Fund Support for Rural Rate of Return Carriers

- (a) Beginning July 1, 2012, rural rate of return carriers designated as eligible telecommunications carriers under subpart B of this Part shall be eligible to receive Connect America Fund (CAF) support as described in this subpart.
- (b) CAF Support for a rural rate of return carrier is equal to the sum of the Rural Broadband Network Transmission Support component calculated pursuant to § 54.1102 below and adjustments to High Cost Loop Support and Interstate Common Line Support as calculated pursuant to § 54.1103 below.

§ 54.1102 Rural Broadband Network Transmission Support Component

- (a) A rural rate of return telephone company's annual Rural Broadband Network Transmission Component support amount shall equal its Rural Broadband Network Transmission Costs minus the result of multiplying the Rural Broadband Benchmark by end of year study area working Broadband Lines times 12 months.
- (b) Rural Broadband Network Transmission Costs for a rural rate of return telephone company shall equal the sum of its interstate-assigned common line costs as defined in Part 69 subpart F of this Chapter; its Additional Interstate Assignment determined pursuant to § 36.154(h) of this Chapter; its Middle Mile Broadband Costs; and its Second Mile Costs.
- (1) For purposes of this computation Middle Mile Broadband Costs include the fully-distributed embedded costs of providing regulated transmission services between the Broadband Access Service Connection Point and the Internet backbone assigned to the Middle Mile Special Access subelement defined in § 69.114 (a)(ii) of this Chapter.
- (2) For purposes of this computation Second Mile Costs include the fully-distributed embedded costs of providing regulated transmission services between the telephone company end office and the Broadband Access Service Connection Point assigned to the Second Mile Special Access subelement defined in § 69.114 (a)(ii) of this Chapter.
- (c) The Rural Broadband Benchmark equals the sum of a fixed component applicable to all rural rate of return study areas as calculated in subsection (1) below and a variable, study area-specific component as calculated in subsection (2) below.
- (1) Fixed Component
- (i) For the period July 1, 2012 through December 31, 2012 the fixed component of the Rural Broadband Benchmark shall be \$19.25.
- (ii) For 2013 the fixed component of the Rural Broadband Benchmark shall be \$20.00.
- (iii) For 2014 the fixed component of the Rural Broadband Benchmark shall be \$20.75.

- (iv) For 2015 the fixed component of the Rural Broadband Benchmark shall be \$21.50.
- (v) For 2016 the fixed component of the Rural Broadband Benchmark shall be \$22.25.
- (vi) For 2017 the fixed component of the Rural Broadband Benchmark shall be \$23.00.
- (vii) For 2018 the fixed component of the Rural Broadband Benchmark shall be \$23.75.
- (viii) For 2019, the fixed component of the Rural Broadband Benchmark shall be \$24.50.
- (ix) For 2020, the fixed component of the Rural Broadband Benchmark shall be \$25.25.
- (x) For 2021, the fixed component of the Rural Broadband Benchmark shall be \$26.00.
- (xi) For 2022, the fixed component of the Rural Broadband Benchmark shall be \$26.75.
- (xii) For 2023 and thereafter, the fixed component of the Rural Broadband Benchmark shall be \$27.50.

(2) Variable Component

- (i) The variable component of the Rural Broadband Benchmark shall be \$6.50 for study areas having a Broadband Take Rate of 25 percent or less.
- (ii) For study areas having a Broadband Take Rate in excess of 25 but less than 50 percent, the variable component is equal to \$6.50 plus the product of the Broadband Take Rate minus 25 percent, divided by 25 percent, and multiplied by \$6.50 multiplied by the following annual transition factor:
 - (1) For the period July 1, 2012 through December 31, 2012, the transition factor for the variable component of the Rural Broadband Benchmark shall be 0.0415.
 - (2) For 2013, the annual transition factor for the variable component of the Rural Broadband Benchmark shall be 0.166.
 - (3) For 2014, the annual transition factor for the variable component of the Rural Broadband Benchmark shall be 0.25.
 - (4) For 2015, the annual transition factor for the variable component of the Rural Broadband Benchmark shall be 0.333.
 - (5) For 2016, the annual transition factor for the variable component of the Rural Broadband Benchmark shall be 0.416.

- (6) For 2017, the annual transition factor for the variable component of the Rural Broadband Benchmark shall be 0.5.
 - (7) For 2018, the annual transition factor for the variable component of the Rural Broadband Benchmark shall be 0.583.
 - (8) For 2019, the annual transition factor for the variable component of the Rural Broadband Benchmark shall be 0.66.
 - (9) For 2020, the annual transition factor for the variable component of the Rural Broadband Benchmark shall be 0.75.
 - (10) For 2021 the annual transition factor for the variable component of the Rural Broadband Benchmark shall be 0.833.
 - (11) For 2022 the annual transition factor for the variable component of the Rural Broadband Benchmark shall be 0.916.
 - (12) For 2023 and thereafter, the annual transition factor for the variable component of the Rural Broadband Benchmark shall be 1.0.
- (iii) For study areas having a Broadband Take Rate of 50 percent or higher, the variable component shall be calculated as specified in subsection 54.1102(c)(2)(ii) above, except that the portion of the Broadband Take Rate over 50 percent shall be reduced by one-half, such that the Broadband Take Rate for purposes of calculating the variable component shall not exceed 75 percent.

§ 54.1103 Adjustments to Other Universal Service Support Mechanisms

(a) High Cost Loop Support: To the extent that the sum of the existing High Cost Loop Support calculated in accordance with Part 36 Subpart F of this Chapter plus Safety Net Additive Support calculated in accordance with Part 36 Subpart F of this Chapter plus Safety Valve Support calculated in accordance with § 54.305 of this Chapter exceeds the additional interstate assignment of loop costs calculated pursuant to § 36.154(h) of this Chapter, the study area shall be eligible to receive the difference between the sum of these three mechanisms and the additional interstate assignment of loop costs in addition to the Connect America Fund Support for which it is eligible.

- (1) For purposes of this section the additional interstate assignment of loop cost shall be determined by comparing the interstate Part 69 Common Line results for the study period to the Common Line results from a Part 36/69 cost study, excluding the Broadband Take Rate additive calculated pursuant to § 36.154(h) of this Chapter.

(b) Transitional Interstate Common Line Support: Effective July 1, 2012, Interstate Common Line Support available to a rate of return carrier qualifying for Connect America Fund support shall be modified by multiplying the carrier's Interstate Common Line Revenue Requirement and its end user subscriber line charge revenue by (1- its Broadband Take Rate).

(c) The provisions of this section shall be effective as of the effective date of Connect America Fund Support pursuant to section 54.1101, and shall remain effective for so long as section 54.1101 remains in effect.

§ 54.1104 Transitional Stability Plan

- (a) Connect America Fund (CAF) support available to rate of return carriers shall be subject to Transitional Stability Plan (TSP) adjustments as provided herein. TSP adjustments shall assure that in each year of a transitional period no rate of return study area experiences reductions in total support provided under this Chapter of more than five percent (5%) as a result of rule revisions in Parts 36, 54 and 69 of this Chapter occurring on July 1, 2012, to the extent funding is available as described in (f) below.
- (b) During the period July 1, 2012 through December 31, 2015, annual CAF support amounts payable to a rate of return study area pursuant to §§ 54.1101 and 54.1103 of this Chapter for each calendar year shall be compared to High Cost Loop (HCL) support (including any applicable safety net adjustments or safety valve support) in accordance with Part 36, Subpart F and § 54.305 of this Chapter, and Interstate Common Line Support (ICLS) in accordance with § 54.901 of this Chapter that would have been available to that same study area for that same calendar year if Part 36, 54 and 69 rules in effect prior to July 1, 2012 had remained in effect for the current year (Prior Rule Support). If CAF support amounts are lower than the Prior Rule Support amounts by more than five percent, CAF support payable to the study area for that year shall be adjusted to equal ninety-five percent of the Prior Rule Support amount.
- (c) For the period January 1, 2016 through December 31, 2016, the TSP adjustment described in subparagraph (b) above shall be reduced by one-third.
- (d) For the period January 1, 2017 through December 31, 2017, the TSP adjustment described in subparagraph (b) above shall be reduced by two-thirds.
- (e) Effective January 1, 2018 such TSP adjustments shall no longer be available.
- (f) Funding for the TSP adjustments described above in each calendar year shall be obtained by reducing, on a pro-rata basis, CAF support amounts available under §§ 54.1101 and 54.1103 of this chapter payable to rate of return study areas having an increase in their CAF support in that same calendar year above their Prior Support amount. Such pro-rata adjustments shall apply only to the portion of CAF support for each study area that exceeds its Prior Rule Support. If adequate funding is not available from such increased amounts of CAF support, TSP adjustment amounts otherwise payable to study areas under subparagraphs (b) through (d) above shall be reduced on a pro-rata basis.

§ 54.1105 Data Reporting and True-up Procedures

- (a) Each rate of return carrier shall submit to the Administrator annually on March 31st projected data necessary to calculate the carrier's prospective CAF Support for each of its study areas in the upcoming funding year. The funding year shall be July 1 of the current year through June 30 of the next year. Each rate of return carrier will be permitted to submit a correction to the projected data filed on March 31 until June 30 for the upcoming funding year. On June 30 each rate of return carrier will be permitted to submit to the Administrator an update to the projected data for the funding year ending on that date.
- (b) Each rate of return carrier shall submit to the Administrator on December 31st of each year the data necessary to calculate a carrier's CAF Support for the prior calendar year. Such data shall be used by the Administrator to make adjustments to monthly CAF Support amounts in the final two quarters of the following calendar year to the extent of any differences between the carrier's CAF

received based on projected data and the support for which the carrier is ultimately eligible based on its actual data during the relevant period.

APPENDIX H

Modeling Limits on Reimbursable Operating and Capital Costs

1. Overview. This appendix describes a methodology for determining carrier-specific limits on High Cost Loop Support (HCLS) payments to rate-of-return cost carriers with very high capital expenses (capex) and operating expenses (opex) relative to their similarly situated peers.¹ The methodology operates within the current HCLS calculation algorithm, using information that is readily available to the Commission and to the public.² This appendix describes both the econometric process used to establish carrier-specific limits to HCLS payments and the implementation process.

2. This work significantly extends the analyses submitted by the Nebraska Rural Independent Companies, which use ordinary least squares regression analysis to develop a framework to predict capital and operating expenditures.³ The Nebraska study examines data for a subset of rural rate-of-return carriers, and uses proprietary data not available to the Commission or to the public. In contrast, the proposed methodology described herein uses data currently available to the Commission and sets forth a detailed and implementable mechanism for examining all rural rate-of-return cost study areas and limiting HCLS payments in those study areas that have costs higher than the vast majority of their similarly-situated peers. We use quantile regression for parameter estimation rather than ordinary least squares for reasons set forth below. In addition, because directly implementing caps for capex and opex cannot be accomplished without fundamentally altering the way HCLS support payments are calculated today, the methodology we describe can be implemented quickly within the current HCLS framework.

¹ The term “similarly-situated peers” means that, based on data from all the carriers in the analysis, if there were (hypothetically) 100 study areas with independent variable values that were nearly the same as those with the study area in question, 90 of them would be expected to have values equal to or less than the 90th percentile prediction. It does not mean the carriers with the most similar number of loops (or values of the other variables).

² The analysis is based on 2010 NECA data. See NECA Annual Universal Service Fund submission, at <http://transition.fcc.gov/wcb/iatd/neca.html>. Rate-of-return study areas affiliated with price cap carriers were excluded because support in those study areas will be frozen at 2011 levels in CAF-Phase I and transitioned to CAF-Phase II. See *supra* para. 133. Also excluded were the exchanges that were acquired by other carrier study areas. Pursuant to section 54.305 of the Commission’s rules, the acquiring carrier receives support for the acquired exchanges at the same per-loop support as calculated at the time of transfer. See 47 C.F.R. § 54.305. Rural carriers who incorporate acquired exchanges into an existing study area are required to provide separately the cost data for the acquired exchanges and the pre-acquisition study area. See NECA 2010 USF Overview, at 5, App. F, <http://transition.fcc.gov/wcb/iatd/neca.html>. The Commission does not have readily available data allowing it to separate these exchanges out from the acquiring exchange, but should be able to do so when running the final analysis. Because of the stable nature of the regression analysis used, staff expects the inclusion of these additional exchanges to have only a small effect on the regression coefficients and therefore on the limits created by the analysis.

³ See Letter from Thomas Moorman, Counsel to Nebraska Rural Independent Companies, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 10-90, 05-337, GN Docket No. 09-51, Attach. (Nebraska Rural Independent Companies’ Capital Expenditure Study: Predicting the Cost of Fiber to the Premise) (dated Jan. 7, 2011) (Nebraska Rural Independent Companies’ Study). See also Letter from Paul M. Schudel, Counsel to Nebraska Rural Independent Companies, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 10-90, 07-135, 05-337, 03-109, GN Docket No. 09-51, CC Docket Nos. 01-92, 01-92, 96-45, Attach. (Operating Expense Study Sponsored by the Nebraska Rural Independent Companies and Telegee Alliance of Certified Public Accounting Firms: Predicting the Operating Expenses of Rate-of-Return Telecommunications Companies) (dated May 10, 2011).

3. **Background.** Today, carriers eligible for HCLS file with NECA annual detailed cost data, pursuant to Part 36, at the study area level reporting their costs in many different cost categories.⁴ The cost categories are then fed into NECA's 26-step Cost Company Loop Cost Algorithm.⁵ The early algorithm steps calculate intermediate values (based on the reported cost categories) and feed into the later algorithm steps which ultimately (in step 26) calculate the carrier's total unseparated cost per-loop for that study area. HCLS for each study area is then calculated by the Expense Adjustment Algorithm.⁶ This algorithm determines HCLS payments based on a study area's cost per-loop compared to the nationwide average cost per-loop.⁷

4. **Methodology for Imposing Limits.** Our methodology creates caps for 11 of the algorithm steps in NECA's 26-step Cost Company Loop Cost Algorithm.⁸ These algorithm steps are all functions of cost categories that are defined in NECA's Appendix B.⁹ The methodology calculates the maximum amount for each of the 11 algorithm steps as the 90th percentile cost for a similarly situated company. A company whose actual costs for a particular step in the algorithm are above the 90th percentile, compared to similarly situated companies, would be limited to recovering amounts that correspond to the 90th percentile of cost, i.e. the amount of cost that ninety percent of similarly situated companies are at or below when they submit costs for that particular step in the algorithm

5. The methodology involves a quantile regression analysis using data from nearly all the rural rate-of-return cost carriers for each algorithm step.¹⁰ The quantile regression parameter estimates are used to calculate a cap equal to the 90th percentile prediction for each carrier for that algorithm step. This is repeated for each of the rest of the examined algorithm steps. Once all the 90th percentile caps are calculated, the lesser of the company's capped algorithm step value and the original value is inserted into the appropriate algorithm step, which then flows into the later algorithm steps as before. We identify the 11 algorithm steps in the analysis below.

6. We considered using an ordinary least squares-based analysis to set the caps, but decided that quantile regression was preferable for two reasons. First, error terms in bivariate OLS

⁴ See Appendix A of NECA's Annual Universal Service Fund submission to the FCC at http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/Monitor/usf10af.zip.

⁵ See Appendix B of NECA's Annual Universal Service Fund submission to the FCC at http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/Monitor/usf10af.zip.

⁶ See Appendix B of NECA's Annual Universal Service Fund submission to the FCC at http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/Monitor/usf10af.zip.

⁷ The cost per loop used in the HCLS support calculation is annually set at a level to ensure that total HCLS disbursements stay within the HCLS cap that year rather than the actual average loop cost. See 47 C.F.R. §§ 36.603(a), 36.622.

⁸ Although NECA labels each algorithm step with a line number, we use the word "step" in our description of the methodology to avoid possible confusion of lines with loops.

⁹ See Appendix B of NECA's Annual Universal Service Fund submission to the FCC at http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/Monitor/usf10af.zip.

¹⁰ There were three study areas for which our source of study area boundaries (Tele Atlas Telecommunications Suite 2010.6) did not provide study area information and therefore we could not properly aggregate census data for those study areas so those study areas were omitted. Further, 25 study area had to be omitted because Tele Atlas Telecommunications Suite 2010.6 labeled two or more distinct study areas as if they were one company, so we could not distinguish the proper boundaries. Although NECA labels each algorithm step with a line number, we use the word "step" in our description of the methodology to avoid possible confusion of lines with loops.

models of each algorithm step on the *loops* variable exhibit heteroscedasticity.¹¹ While ordinary least squares-based analyses such as weighted least squares can certainly deal with heteroscedasticity, it complicates efforts to deal with other problems such as outliers and non-Gaussian error terms.¹²

7. Further, ordinary least squares can produce biased parameter estimates in the presence of outliers.¹³ Ordinary least squares has methods available for dealing with outliers, such as excluding them from the analysis or using dummy variables to deal with them, but that requires exercise of judgment as to which observations are truly outliers. Also, given the data currently available to the Commission, distinguishing between study areas with high idiosyncratic costs (i.e., those that truly are the most expensive-to-serve areas) and others with excessively high cost (e.g., due to imprudent or unnecessarily large past investments) is challenging. Further complicating matters, some carriers may enjoy especially low costs compared to their peers for idiosyncratic reasons. While these observations would be outliers, they would be masked by the virtue that they are somewhat “too low” and therefore it would be difficult to properly identify and deal with those outliers. Thus, simply looking only for observations that are too high may be insufficient. When using ordinary least squares, failing to account for all outliers (including the difficult-to-find outliers that are “too low”) could bias the regression coefficients which would then bias payments to carriers. Quantile regression solves this problem.

8. Use of Quantile Regression. Quantile regression, developed by Roger Koenker and Gilbert Basset in 1978, is a good solution to address these problems.¹⁴ It is similar to ordinary least squares regression, but where ordinary least squares minimizes the sum of squared residuals from the regression line, the median quantile regression minimizes the sum of absolute residuals from the regression line; for quantiles other than the median, quantile regression minimizes the sum of asymmetrically-weighted absolute residuals.¹⁵

9. While ordinary least squares requires the error terms be homoscedastic, quantile regression makes fewer assumptions about the error term than ordinary least squares, and so there is no need to correct for heteroscedasticity.¹⁶ Thus the quantile regression methodology is robust to error structures that are non-Gaussian or violate the assumption of the normal distribution of errors required for unbiased estimation using ordinary least squares.¹⁷

10. Quantile regression is also resistant to outliers, so the parameter estimates would be little changed by accounting for (or not) particular observations as outliers.¹⁸ That is, if one were to modify the

¹¹ For all the algorithm steps in this methodology, the Breusch-Pagan test rejected the null hypothesis of homoscedasticity. Ordinary least squares requires the variance of the error term to be homoscedastic (constant) and therefore unrelated to the independent variables. William H Greene, *Econometric Analysis* 6th Ed. 11 (2008) (Prentice Hall).

¹² Another commonly-used option for correcting for heteroscedasticity is using robust standard errors. That option may work well for statistical inference, but we are most interested in obtaining parameter estimates (so that we can make cost predictions) that are concordant with each other year after year, and robust standard errors does not address this shortcoming.

¹³ G.S. Madalla, *Introduction to Econometrics*, 2nd Ed. 88 (1992) (Macmillan Publishing Co).

¹⁴ Koenker, Roger and Gilbert Bassett. 1978. “Regression Quantiles.” *Econometrica*. January, 46:1, pp. 33–50.

¹⁵ Roger Koenker and Keven Hallock, *Journal of Economic Perspectives*, Volume 15, Number 4, Fall 2001, Pages 143–156.

¹⁶ Lingxin Hao and Daniel Q. Naiman, *Quantile Regression* 20 (2007) (Sage Publications).

¹⁷ Koenker, Roger and Gilbert Bassett. 1978. “Regression Quantiles.” *Econometrica*. January, 46:1, pp. 33–50.

¹⁸ Lingxin Hao and Daniel Q. Naiman, *Quantile Regression* 20 (2007) (Sage Publications).

analysis to account for any known outliers, then we would not expect the list of study areas affected by the caps or the levels of those caps to change very much. Given the complexities of identifying outliers mentioned above, this is an attractive property.

11. Another significant advantage of quantile regression is that it allows the independent variables to have different effects on the study areas in the different quantiles. Thus, for illustrative purposes, if the number of housing units in a rural area increased while holding everything else constant, the size of the study area's cost increase could differ based on which quantile it is in. Hypothetically, the marginal effect of a change could even be positive for a carrier in one quantile (such as the 90th percentile)¹⁹ and negative for a carrier in another (such as the 10th percentile).²⁰ This is not allowed in ordinary least squares, which assumes that the marginal effect is the same on all carriers. Given that we are examining carriers with high costs relative to other carriers, this is an especially helpful property.

12. Setting the Quantile Threshold. This methodology uses the 90th percentile because carriers with costs exceeding 90 percent of their similarly-situated peers may raise questions about the prudence of such expenditures. In the FNPRM, the Commission seeks comment on whether to set the exact quantile to a lower or higher level such as the 85th percentile or the 95th percentile.²¹

13. All of the regressions were log-log: all dependent and most independent variables were logged using the natural log.²² For those variables that were logged, we added one before taking the log so that observations with values equaling zero could be included in the analysis.

14. While many of the measures of density are collinear, this is not problematic for this methodology because our goal is prediction, not statistical inference. Multicollinearity does not harm predictions.²³

15. Dependent Variables. Consistent with the idea of limiting reimbursements for capex, we create caps for algorithm steps 1, 2, 17 and 18.²⁴ Algorithm steps 1 and 2 represent the two categories of gross plant.²⁵ Algorithm steps 17 and 18 represent the depreciation and amortization associated with the plant represented in algorithm steps 1 and 2.²⁶

¹⁹ This would be a carrier with very high costs given the number of loops that it serves and other factors.

²⁰ This would be a carrier with very low costs given the number of loops that it serves and other factors.

²¹ Technically, the choice is not limited to percentiles and any quantile can be used, such as the .925 quantile. *See supra* para. 1080.

²² Weighted density and percent water were not logged. We considered a methodology whereby all the algorithm step dependent variables were unitized by dividing by the number of loops, but we found that approach inferior to the current approach of leaving the algorithm steps non-unitized for two reasons. First, the algorithm steps we are capping are not unitized. Also, the regressions using the unitized algorithm steps lost much of their significance, and we therefore had less confidence in the caps they generated.

²³ Multicollinearity is another reason to be careful when deciding to omit particular variables from the model. T-tests in the presence of multicollinearity can be biased down and can lead one to drop a variable that belongs in the model.

²⁴ For definitions of these algorithm steps, see Appendix B of NECA's Annual Universal Service Fund submission to the FCC at http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/Monitor/usf10af.zip

²⁵ In particular, step 1 is cable and wire facilities plus the portion of cable and wire facilities leases assigned to Category 1, and step 2 is central office equipment plus the portion of central office equipment leases assigned to Category 4.13.

²⁶ Specifically, step 17 is depreciation and amortization expense assigned to cable and wireless facility Category 1, and Step 18 is depreciation and amortization expense assigned to central office equipment Category 4.13.

16. Consistent with the idea of limiting reimbursements for opex, we create caps for algorithm steps 7, 8, 13, 14, 15, 16, and 21. Algorithm steps 7 and 8 represent materials and supplies.²⁷ Algorithm steps 13 and 14 represent maintenance.²⁸ Algorithm steps 15 and 16 represent network support and general support expenses.²⁹ Algorithm step 21 represents benefits other than corporate operations expenses.³⁰ By creating caps for these 11 algorithm steps, we limit the reimbursements for capex and opex expenditures that exceed those of the vast majority of similarly-situated carriers.

17. We exclude algorithm step 19 (corporate operations expense) from our regression analysis because limitations for that cost category have been separately adopted in the Order,³¹ and we also exclude algorithm step 20 because it represents taxes. Additionally, we exclude algorithm step 22 (rents) because the regression fit is so poor. Because the regressions are run independently, the exclusion of algorithm step 22 from the methodology does not affect the other regressions.

18. As mentioned above, some of the early algorithm steps calculate factors (based on the reported cost categories) that flow into later algorithm steps. While we do not directly modify algorithm steps 3, 4, 5, 6, 9, 10, 19, 20, and 22, we allow changes in algorithm steps 1 and 2 to flow through to these algorithm steps. For example, algorithm steps 1 and 2 flow into algorithm step 20, which accounts for operating taxes to be assigned to loop costs.³² Thus, a reduction to algorithm step 1 and/or 2 could lead to a reduction in algorithm step 20, which would be in accordance with the approach of limiting HCLS payments to study areas with very high capital expenses.

19. As we do with the independent variables, the values of the algorithm steps in our analysis were logged to linearize the model. In two instances, a study area had a negative algorithm step value, which prevented us from taking the natural log for those two values. These two observations were omitted. The data from these two study areas were still included in all the other regressions. Where the algorithm step value was negative, the study area's original algorithm step value was retained.

20. Independent Variables. The independent variables in this study are those that we believe correlate with each carrier's costs, are currently available to the Commission, and exist for all study areas in the regression analysis.³³ The independent variables in our methodology are proxies for scale, density, and terrain. Other than the number of loops the study area serves, all the independent variables are from

²⁷ Specifically, step 7 is materials and supplies assigned to cable and wireless facility Category 1, and Step 8 is materials and supplies assigned to central office equipment Category 4.13.

²⁸ In particular, algorithm step 13 represents cable and wire facilities maintenance assigned to Category 1, and algorithm step 14 represents Central Office equipment maintenance expense assigned to Category 4.13.

²⁹ Specifically, algorithm step 15 is associated with network support expenses plus general support expenses assigned to cable and wire facility category 1 and central office equipment associated with Category 4.13.

³⁰ Algorithm step 21 is benefits other than corporate operations expense assigned to cable and wire facility Category 1 and central office equipment Category 4.13.

³¹ See Section VII.D.4.

³² Algorithm steps 1 and 2 (combined with 5 and 6) result in an allocation ratio that determines the amount of an expense, such as taxes, that will be assigned to loop costs for purposes of calculating HCLS.

³³ We note that using the Soil Survey Geographic Database (SSURGO) soils data from the Natural Resource Conservation Service (NRCS) that the Nebraska study used to generate soil, frost and wetland variables do not cover the entire United States. The SSURGO data do not cover about 24 percent of the United States land mass (including Puerto Rico, Guam, American Samoa, US Virgin Islands and Northern Mariana Islands). Much, but not all of the missing land area is in Alaska. Thus, there are some study areas where there is no SSURGO data (such as Adak Tel Utility) and other study areas where the SSURGO data do not cover the entire study area such as Matanuska Tel Assoc. We therefore could not use these data in the regression model.

the 2010 United States census.³⁴ As we do with the algorithm step variables, we took the natural logs of all the independent variables to linearize the model.³⁵

21. Census block data were rolled up to study area boundaries using Tele Atlas data.³⁶ There were 28 study areas without census block information that were excluded from this analysis.³⁷ There are two significant advantages to using block-level census data. First, census blocks are most granular areas at which the Census Bureau publishes data, so using census blocks allows for the most accurate mapping of demographic data such as housing units to study areas. Second, census blocks are designated as being part of (in decreasing urbanness order) an urbanized area, urbanized cluster or nonurban.³⁸ In this fashion, we allow the nonurban (rural) independent variables to have different effects from the urban variables. For instance, the additional cost of serving an additional urban housing unit (holding all else constant) is likely to be different than the cost of serving an additional rural housing unit. Therefore, for each of the census-based independent variable in our analysis, we roll the data up based on whether they are in an urbanized area, urbanized cluster or rural area within the study area.

22. Not all the variables are significant in each regression, and there are some variables (such as the log of land area in urbanized clusters) that are not significant in any of the regressions. We chose to use all the variables in all the regressions so long as the parent variable (such as land area) had at least one child variable (such as land area in a non-urbanized area) that was significant for at least one of the regressions in the analysis. While this meant that some regressions had many insignificant variables, this was not a problem because the goal of the regression was not to determine statistically significant correlations, but instead to generate 90th percentile predictions, which are unaffected by the addition of insignificant variables.

23. We use two measures of scale, *loops* and *housing units*. The more loops the carrier is serving, the higher its expenses will be. We use the number of loops in NECA's October 2011 filing.³⁹

³⁴ The census data can be downloaded here: http://www2.census.gov/census_2010/01-Redistricting_File--PL_94-171/ and the documentation is available here: <http://www.census.gov/prod/cen2010/doc/pl94-171.pdf>. Census has not yet released the urban/rural breakouts for 2010, so we used the 2000 urban/rural breakouts.

³⁵ Because some of the census variables were sometimes zero (for instance, certain land areas were sometimes zero), we added 1 to each of the census variables (except percent water) before taking the natural log. We accounted for this when creating the 90th percentile prediction for each algorithm step.

³⁶ Census blocks were assigned to study areas based on the location of the block's centroid. Thus, all blocks were assigned to exactly one study area. Tele Atlas Telecommunications Suite 2010.6 was used to determine the study area boundaries for each of the study areas in this analysis. Study area boundaries could not be determined for the territories because Tele Atlas Telecommunications Suite 2010.6 did not provide data for them.

³⁷ There were three study areas for which we could not find 2010 census data, so those observations were omitted. Further, 25 study area had to be omitted because our source of study area boundaries (Tele Atlas Telecommunications Suite 2010.6) labeled two or more distinct study areas as if they were one company, so we could not distinguish the proper boundaries.

³⁸ For a discussion of how the Census Bureau determines urbanized areas, urbanized clusters, and rural areas, see <http://www.census.gov/geo/www/ua/2010urbanruralclass.html>.

³⁹ The most recent year of data was used. See NECA's Overview of Universal Service Fund, which can be found at <http://transition.fcc.gov/wcb/iatd/neca.html>.

The NECA data do not disaggregate loop data by urbanized clusters, urbanized areas or non-urban areas, so we include an additional scale variable with the urbanness breakout: housing units.⁴⁰

24. We include two measures of density in our analysis, the *weighted housing unit density* and the *number of census blocks* in the study area. Because it is easier to wire businesses and homes when they are close to each other than when they are far apart, we expect that costs will decrease with density.⁴¹ There are several ways one can measure density, however.

25. The simple method, which merely divides the study area's number of housing units by total area (or just land area) does not take into account the possibility that large swaths of land in a study area may have absolutely no homes or businesses.⁴² So we calculate the weighted average density for each study area using census block data.

26. For each census block in each study area, we calculated the block's density by dividing the number of housing units in the block by the area of the block.⁴³ We then set the weight for each block equal to the number of housing units in the block divided by the total number of housing units in the study area. Thus, blocks without any homes had no weight. Again, census data do not include the number of businesses in the block, so we could not include them in the density calculation.

27. We include *land* and *percent water* in each study area as a rough indicator of terrain-driven costs. We expect that holding everything else constant, the more land area that a carrier has in its territory, the more expensive it is to serve. Similarly, the more water area in the study area, the more expensive it should be to serve, because roads are typically routed around such water, so the natural pathways for the carrier's cabling are longer than they otherwise would be.

28. Results. The regression analysis was run for the four most recent years of data that NECA reported to the Commission: 2007 – 2010. The results for each year of data were very consistent with each other. The regression results from 2010 are included below.

29. Two versions of the quantile regression analysis are presented: Table 1 includes the *weighted density* variable, and Table 2 excludes it. Perhaps surprisingly, weighted density was significant in only one of the regressions in Table 1. One may think weighted density is insignificant in this model because of the inclusion of the other density measures (the three blocks variables), but weighted density is still insignificant when the *blocks* variables are omitted. (Further, the pseudo R^2 drops when we omit the *blocks* variables, so we keep the *blocks* variables in the analysis and drop the *weighted density* variable.) We therefore use the model that excludes weighted density.

30. As expected, the *loops* variable was the most influential independent variable in predicting the values for the algorithm steps. The remaining variables are significant in many of the regressions (both when including and excluding the *weighted density* variable), and so they remain in the regressions.

⁴⁰ We understand that carriers serve business as well as homes, but we do not have business information with the same urbanness breakout as housing units. We are comfortable with the assumption that businesses and homes are similarly distributed throughout study areas for rate-of-return carriers.

⁴¹ For example, see Nebraska Companies' Capital Expenditure Study at 18.

⁴² We estimated with model with the simple calculation of density, and it performed worse than the weighted density variable.

⁴³ Although the Census Bureau publishes census block area in square meters, the area was converted to square miles for this analysis.

31. As mentioned above, the study area's capped algorithm step values (or the original algorithm step values where they are lower than the capped algorithm step values) are inserted into the algorithm. These step values then flow into later algorithm steps that ultimately determine the Study Area Cost Per Loop value.

32. Implementation. This proposed methodology would be updated annually to establish limits on the Study Area Cost Per Loop values, which are used to determine eligibility for HCLS payments.

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Table 1. 90th Percentile Quantile Regression Coefficients – Data as of 2010 without weighted density

	AS1	AS2	AS7	AS8	AS13	AS14	AS15	AS16	AS17	AS18	AS21	AS22
Loops	0.885*** (15.99)	0.964*** (14.49)	1.167*** (6.65)	1.291*** (9.05)	0.542*** (6.40)	0.725*** (9.99)	0.919*** (6.50)	0.876*** (8.86)	0.892*** (8.56)	0.834*** (8.32)	0.785*** (13.26)	0.769*** (3.67)
Housing_Units_nu	-0.32*** (-4.57)	-0.43*** (-5.69)	-0.519* (-2.36)	-0.66*** (-3.70)	0.0594 (0.61)	- (-2.96)	-0.185 (-1.05)	- (-2.62)	-0.319* (-2.43)	-0.216 (-1.94)	-0.125 (-1.51)	-0.149 (-0.55)
Housing_Units_uc	0.166** (2.79)	0.194** (2.63)	0.222 (0.85)	0.250 (0.86)	0.0353 (0.30)	0.0261 (0.26)	0.0476 (0.30)	0.223 (1.42)	0.161 (1.30)	0.174 (1.61)	0.241* (1.96)	0.151 (0.58)
Housing_Units_ua	-0.0356 (-0.52)	0.0895 (0.66)	0.143 (0.35)	-0.0056 (-0.01)	0.103 (0.52)	-0.0519 (-0.40)	-0.00828 (-0.05)	-0.189 (-0.80)	-0.0520 (-0.36)	0.191 (1.02)	-0.230* (-2.38)	-0.454 (-1.11)
Land_Area_nu	0.163*** (6.11)	0.138*** (3.57)	0.218** (2.60)	0.215* (2.42)	0.0835 (1.74)	0.143** (2.86)	0.220** (2.91)	0.0544 (0.68)	0.117* (2.30)	0.171** (3.05)	0.186*** (4.33)	0.222 (1.69)
Land_Area_uc	0.00647 (0.10)	0.0223 (0.21)	-0.0051 (-0.02)	-0.0614 (-0.22)	-0.216 (-1.41)	-0.0178 (-0.12)	0.0292 (0.15)	0.145 (0.72)	-0.0146 (-0.13)	-0.109 (-0.86)	-0.104 (-0.71)	-0.297 (-0.98)
Land_Area_ua	-0.101 (-1.49)	0.137 (0.72)	0.596 (1.19)	0.265 (0.48)	-0.0041 (-0.02)	-0.289* (-2.33)	0.0983 (0.24)	0.219 (0.68)	0.169 (1.36)	0.482 (1.86)	- (-2.59)	-0.467 (-0.95)
Percent_Water	0.866*** (3.31)	-0.0712 (-0.19)	-0.434 (-0.36)	-1.103 (-0.91)	0.299 (0.38)	-0.244 (-0.54)	0.808 (0.86)	1.731* (2.53)	0.577 (1.03)	-0.821 (-1.37)	-0.246 (-0.31)	-0.0843 (-0.05)
Census_Blocs_nu	0.134* (2.44)	0.200* (2.37)	0.228 (1.27)	0.297 (1.53)	0.0559 (0.58)	0.113 (1.05)	-0.129 (-0.77)	0.135 (0.87)	0.176 (1.69)	0.0630 (0.53)	0.0840 (0.91)	-0.259 (-1.01)
Census_Blocs_nu	-0.252** (-2.72)	-0.318** (-2.89)	-0.341 (-0.84)	-0.388 (-0.90)	0.0386 (0.22)	-0.0340 (-0.22)	-0.0735 (-0.30)	-0.325 (-1.38)	-0.251 (-1.29)	-0.246 (-1.46)	-0.297 (-1.58)	-0.0890 (-0.22)
Census_Blocs_nu	0.160 (1.48)	-0.123 (-0.50)	-0.492 (-0.66)	-0.0194 (-0.02)	-0.0713 (-0.19)	0.303 (1.64)	0.000850 (0.00)	0.228 (0.48)	0.0383 (0.18)	-0.454 (-1.35)	0.563*** (3.42)	1.037 (1.34)
Constant	10.38*** (50.38)	8.933*** (36.72)	4.261*** (6.26)	2.419*** (3.56)	7.263*** (19.34)	7.263*** (21.60)	6.055*** (10.77)	6.929*** (12.50)	7.269*** (19.23)	6.547*** (17.90)	5.822*** (17.85)	7.220*** (8.58)
N	720	720	720	720	720	719	719	720	720	720	720	720
pseudo R²	0.5863	0.4802	0.2949	0.2745	0.4395	0.3110	0.3648	0.3893	0.5121	0.3790	0.4516	0.0782

t statistics in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: All variables except Percent Water are in logs. AS = Algorithm Step; nu = non-urbanized area; uc = urbanized cluster; ua = urbanized area.

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Table 2. 90th Percentile Quantile Regression Coefficients – Data as of 2010 – with weighted density

	AS1	AS2	AS7	AS8	AS13	AS14	AS15	AS16	AS17	AS18	AS21	AS22
Loops	0.891 ^{***} (17.29)	0.964 ^{***} (11.74)	1.008 ^{***} (8.03)	1.073 ^{***} (5.79)	0.529 ^{***} (5.65)	0.716 ^{***} (8.89)	0.756 ^{***} (5.67)	0.895 ^{***} (7.44)	0.762 ^{***} (9.37)	0.844 ^{***} (6.92)	0.785 ^{***} (11.08)	0.621 [*] (2.07)
Weighted_Density	-0.0393 (-1.27)	-0.0231 (-0.54)	-0.0146 (-0.16)	0.0160 (0.13)	-0.0735 (-1.24)	-0.0554 (-1.13)	0.157 [*] (2.29)	-0.0518 (-0.49)	-0.0103 (-0.22)	-0.0102 (-0.18)	0.0504 (1.01)	0.211 (1.33)
Housing_Units_nu	-0.35 ^{***} (-5.11)	-0.42 ^{***} (-4.39)	-0.392 [*] (-2.31)	-0.416 (-1.69)	0.0653 (0.61)	-0.287 ^{**} (-2.84)	-0.0079 (-0.05)	-0.374 [*] (-2.14)	-0.155 (-1.50)	-0.198 (-1.40)	-0.101 (-1.09)	0.0367 (0.09)
Housing_Units_uc	0.139 [*] (2.26)	0.172 [*] (2.12)	0.227 (0.91)	0.248 (0.73)	0.0441 (0.41)	0.0248 (0.25)	-0.0198 (-0.15)	0.176 (0.96)	0.121 (1.19)	0.117 (1.05)	0.220 (1.73)	0.235 (0.74)
Housing_Units_ua	-0.0321 (-0.45)	0.0804 (0.54)	0.305 (1.06)	0.0561 (0.11)	0.121 (0.61)	-0.0907 (-0.72)	-0.0332 (-0.24)	-0.233 (-0.84)	0.136 (1.35)	0.144 (0.85)	-0.205 [*] (-2.03)	-0.417 (-0.92)
Land_Area_nu	0.138 ^{***} (4.75)	0.135 ^{**} (3.07)	0.161 [*] (2.03)	0.234 [*] (2.23)	0.0543 (1.05)	0.135 ^{**} (2.73)	0.204 ^{**} (3.18)	0.0114 (0.12)	0.125 ^{**} (3.08)	0.181 ^{**} (3.00)	0.197 ^{***} (4.47)	0.321 (1.96)
Land_Area_uc	0.0226 (0.33)	0.0142 (0.12)	-0.0659 (-0.23)	0.0955 (0.29)	-0.214 (-1.45)	-0.0018 (-0.01)	0.0815 (0.53)	0.153 (0.65)	-0.0904 (-1.06)	-0.114 (-0.87)	-0.128 (-0.91)	-0.269 (-0.77)
Land_Area_ua	-0.107 (-1.59)	0.108 (0.51)	0.524 (1.12)	-0.0237 (-0.04)	0.140 (0.56)	-0.242 (-1.95)	0.0972 (0.38)	0.190 (0.50)	-0.110 (-0.84)	0.263 (0.97)	-0.413 ^{**} (-3.12)	-0.476 (-0.79)
Percent_Water	0.905 ^{**} (3.00)	-0.0899 (-0.21)	-0.825 (-0.73)	-1.349 (-0.94)	0.167 (0.20)	-0.260 (-0.59)	0.654 (0.84)	1.685 [*] (2.08)	0.375 (0.76)	-0.762 (-1.19)	-0.166 (-0.21)	0.131 (0.07)
Census_Blocs_nu	0.178 ^{**} (2.95)	0.192 [*] (1.99)	0.301 (1.71)	0.232 (0.98)	0.0850 (0.82)	0.126 (1.17)	-0.107 (-0.75)	0.192 (1.02)	0.140 (1.63)	0.0200 (0.16)	0.0809 (0.85)	-0.352 (-1.06)
Census_Blocs_uc	-0.215 [*] (-2.23)	-0.279 [*] (-2.29)	-0.319 (-0.83)	-0.406 (-0.80)	0.0452 (0.28)	-0.0284 (-0.19)	0.00157 (0.01)	-0.247 (-0.90)	-0.162 (-1.01)	-0.164 (-0.94)	-0.271 (-1.39)	-0.241 (-0.50)
Census_Blocs_ua	0.163 (1.45)	-0.0922 (-0.34)	-0.701 (-1.24)	-0.0939 (-0.10)	-0.173 (-0.47)	0.344 (1.91)	0.0371 (0.19)	0.314 (0.57)	-0.0927 (-0.58)	-0.276 (-0.84)	0.539 ^{**} (3.22)	0.930 (1.03)
Constant	10.58 ^{***} (37.30)	9.068 ^{***} (23.73)	4.426 ^{***} (5.48)	2.460 [*] (2.26)	7.735 ^{***} (14.24)	7.748 ^{***} (17.77)	4.921 ^{***} (7.72)	7.261 ^{***} (7.26)	7.234 ^{***} (17.65)	6.602 ^{***} (12.92)	5.275 ^{***} (14.24)	5.705 ^{***} (4.18)
N	717	717	717	717	717	716	716	717	717	717	717	717
pseudo R²	0.5931	0.4839	0.3042	0.2747	0.4440	0.3142	0.3718	0.3920	0.5194	0.3818	0.4570	0.0791

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: All variables except Percent Water and Weighted Density are in logs. AS = Algorithm Step; nu = non-urbanized area; uc = urbanized cluster; ua = urbanized area

APPENDIX I

Estimated Consumer Benefits of Intercarrier Compensation Reform

1. This appendix explains Commission staff's estimate that consumers will likely gain benefits worth over \$1.5 billion annually as a result of the ICC reform adopted in the Order.¹ These benefits will come in the form of lower prices, increased service levels at existing prices, and/or more innovative services. This appendix also explains staff's estimate that new Access Recovery Charges (ARCs) that incumbent LECs electing to participate in the recovery mechanism may assess will impose a total, peak-year burden on consumers of less than \$500 million per year. This includes approximately \$1 monthly per line in business ARCs, reflecting 5 years of annual increases of approximately 20 cents monthly per line, most or all of which we expect will ultimately get passed through to customers of these businesses, and approximately \$0.65 monthly per line in residential and single-line ARCs, based on 5 years of annual increases of approximately 12.5 cents monthly per line.² Given these estimates, staff expects that the consumer benefit to cost ratio of ICC reform will be greater than 3:1. Although these estimates illustrate the likely consumer benefits of reform, given their inherent uncertainty, they were not relied on in reaching the decisions in the Order.³

2. This analysis takes a conservative approach; that is, the analysis makes assumptions likely to understate expected consumer benefits and to overstate the potential costs of the ARC. In particular, this analysis estimates only those consumer gains and losses that will arise as a *direct* result of reforms adopted in the Order: carriers' direct responses to reductions in ICC rates and to the ability to assess ARCs, which will affect how carriers price and deliver calling services. There will also be *indirect* consequences of reform, which staff expects will also be on the whole positive for consumers, such as reductions in billing disputes; more efficient decisions in production, including an accelerated transition to all-IP networks; and innovation more generally.⁴ The reforms will also enable consumers to efficiently expand their use of telephone services, compared to what they would have done absent reform, as prices are brought closer to marginal cost.⁵ While staff did not attempt to estimate any of these indirect benefits, past experience suggests they will be substantial.⁶

Consumer Savings: Intercarrier Compensation Charge Reductions

3. Staff estimates that the consumer benefits from the ICC rate reductions adopted in the Order⁷ will scale to between \$1.5 and \$2.6 billion annually.⁸ This analysis begins by estimating the

¹ This Appendix focuses exclusively on the ICC reforms in the Order. It does not address the effects of the Order's universal service reforms.

² See *infra* note 294 and accompanying text, see also *supra* para. 852. The average expected business ARCs were calculated using the same method described in the Order for average expected consumer ARCs.

³ The Order does, however, conclude that the benefits of ICC reform outweigh the costs overall. See *supra* Section XII.A.

⁴ See *id.*

⁵ See *id.*

⁶ See *supra* para. 751.

⁷ The Order reduces rates for intrastate and interstate terminating end-office switching, reciprocal compensation (*i.e.*, non-access) rates, and certain terminating switched access transport rates (in the case where the tandem and (continued...))

termination charges that interexchange carriers, Commercial Mobile Radio Service (CMRS) providers, and other carriers currently pay to local exchange carriers (LECs) and that will be eliminated as carriers transition to bill and keep arrangements under the Order. For simplicity, staff did not consider ICC savings from reductions of dedicated transport from intrastate to interstate rates; from moving all intraMTA CMRS-to-LEC traffic to bill-and-keep, including rate elements not otherwise reduced in the Order; or from capping all interstate and most intrastate rates not reduced to bill and keep, each of which would increase staff's estimates of consumer savings. The analysis then estimates the fraction of ICC savings that will be passed on to consumers in the form of lower prices or better value for existing prices.

4. To estimate savings from ICC reductions, staff started with incumbent LECs' 2010 ICC revenues, filed in response to the *USF/ICC Transformation NPRM*.⁹ These data showed \$2.9 billion of revenues for the ICC rate elements that will be transitioned to a bill-and-keep methodology under the Order.¹⁰

5. For competitive LECs, staff had to estimate revenues indirectly. Although the *NPRM* requested data from all providers, including competitive LECs, competitive LECs did not file this type of data. To fill this gap, staff estimated competitive LEC ICC revenues based on incumbent LEC revenues, applying a conservative assumption that competitive LECs receive approximately 25 percent less ICC revenue per line than incumbents. This downward adjustment reflects the fact that there has been some dispute regarding payment for termination of VoIP calls, and competitive LECs affiliated with cable companies may be party to a disproportionate share of disputes relating to payment for VoIP traffic compared to incumbent carriers.¹¹ Based on these calculations, staff estimates that competitive LECs collected a total of approximately \$1.1 billion in 2010 ICC revenues for the ICC rate elements that will be transitioned to bill-and-keep under the Order.¹²

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end-office switches are owned by the same carrier) to a bill-and-keep methodology. These reductions are all included in the staff's analysis. The *Order* also caps all interstate rates, all intrastate rates for price cap carriers, and reduces intrastate dedicated transport rates to interstate levels, but for simplicity the analysis ignores these additional changes in estimating consumer benefits.

⁸ All estimates are expressed in 2010 dollars.

⁹ See *supra* para. 852, note 1646.

¹⁰ See *supra* note 7.

¹¹ Staff conservatively assumed that, due to these unresolved disputes, cable-company-affiliated competitive LECs receive only half the termination revenues that would accrue to an incumbent LEC. Cable companies account for 50 percent of competitive LEC voice services, and staff assumed that other competitive LECs receive per line ICC payments equivalent to those of incumbent LECs. Staff therefore estimates that competitive LECs as a whole receive 25 percent less on a per line basis in ICC revenues compared to incumbent LECs. See National Cable and Telecommunications Association, <http://www.ncta.com/Stats/CablePhoneSubscribers.aspx> (at the end of 2010, cable companies provided voice service to 23.9 million voice subscribers); Federal Communications Commission, Local Telephone Competition Status, Industry Analysis and Technology Division Wireline Competition Bureau March 2011, Table 1, page 12, http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-305297A1.pdf (2010 total of all competitive LEC voice services). Consistent with the prospective approach the *Order* adopts with respect to VoIP payment obligations, the 25 percent per line revenue discount does not reflect any judgment concerning carriers' obligation to pay for VoIP traffic prior to the *Order*'s effective date—it is merely the staff's conservative estimate of 2010 actual collected revenues.

¹² Nationwide, incumbent LECs have approximately two thirds of all fixed (as opposed to mobile) voice customers and competitive LECs have approximately one third. See National Exchange Carrier Association's Annual Submission of Access Minutes of Use Data to the FCC, submitted to the FCC on March 21, 2011, (continued...)

6. Adding incumbent LEC revenues of approximately \$2.9 billion to competitive LEC revenues of approximately \$1.1 billion, staff estimates that, accounting for rounding errors, a total of approximately \$4.1 billion in 2010 ICC revenues will be transitioned to a bill-and-keep methodology over the course of reform. Because these revenues are payments from other carriers, including CMRS and interexchange carriers, the paying carriers will realize savings as ICC rates are phased out.¹³ And because these savings are in traffic-sensitive costs, the paying carriers will have a strong incentive to reduce prices or otherwise enhance their offerings so as to encourage greater network use and retain or attract customers.

7. Staff therefore next considered what share of these savings will be passed on to consumers in the form of lower prices, increased service levels at existing prices, and/or more innovative services. To build a simplified, conservative model of consumer pass-through, staff assumed all end users

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http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/Monitor/netwu10.zip. If the equivalent competitive LEC termination revenues were scaled by these line counts, then they would be approximately half of the incumbent LEC's revenues, or approximately \$1.5 billion for 2010. Reducing this amount by 25 percent, allowing for rounding errors, results in approximately \$1.1 billion.

¹³ Some ICC payments are internal company transfers, such as when an AT&T LEC or CMRS customer places a long-distance call to an AT&T LEC customer. As explained below, we estimate that these account for less than 20 percent of ICC payments. It might be thought that integrated firms will not view reductions in such payments as savings, and therefore these payments should be excluded when calculating consumer gains. This argument rests on the incorrect assumption that profit-maximizing carriers set retail prices to their customers based solely on their resource marginal cost of call termination for calls going to other on-network customers, rather than based on regulated ICC rates. But as recognized in the economics literature cited below, this assumption ignores an important point: an integrated carrier (i.e., one that also owns a LEC) will recognize that decreases in its retail price typically will divert business to it from competing carriers and, hence, decrease the profit it earns from access paid to it by those carriers. (The decrease is proportional to its access margin and the diversion ratio – the percent of the increase in its minutes that came at the expense of other carriers.) Thus, an integrated carrier will treat its marginal cost for outbound calls as its resource marginal cost of termination plus an opportunity cost reflecting the lost access revenue from other carriers. See, e.g., Gary Biglaiser & Patrick DeGraba, *Downstream Integration by a Bottleneck Input Supplier Whose Regulated Wholesale Prices Are above Costs*, 32 RAND J. Econ. 302 (2001), available at <http://www.jstor.org/stable/2696411>, Yongmin Chen, *On Vertical Mergers and Their Competitive Effects*, 32 RAND J. Econ. 667 (2001), available at <http://www.jstor.org/stable/2696387>, Patrick DeGraba, *A Bottleneck Input Supplier's Opportunity Cost of Competing Downstream*, 23 J. Reg. Econ. 287 (2003), DOI: 10.1023/A:1023364210896, David Sappington, *On the Irrelevance of Input Prices for Make-or-Buy Decisions*, 95 Am. Econ. Rev. (2005), <http://www.jstor.org/pss/4132768>. Correspondingly, a reduction in inter-company access payments will induce integrated carriers to cut their retail prices for two reasons: (a) not only because their retail competitors experience marginal cost reductions, and hence cut retail prices, but also (b) because their own opportunity cost of providing outbound calls falls due to the decreased access revenue earned from competitors. For both reasons, the decrease in industry retail prices – and the corresponding benefits to consumers – would be significantly understated if one projected these benefits based only on reductions in inter-company ICC payments (i.e., excluding all internal ICC payments).

Staff arrived at the estimate that less than 20 percent of ICC expenses are internal payments based on the line-shares of AT&T, Verizon and Verizon Wireless, and CenturyLink. This estimate of intracarrier ICC payments is exaggerated because Verizon does not fully own Verizon Wireless, and so payments between these carriers are not entirely internal. Internal transfers within other carriers should be small. Staff squared each integrated firm's share of total voice lines (ILEC, CLEC, and CMRS) to approximate the percentage of all ICC payments that represent calls from that carriers' customers to other customers of the same carrier (assuming all telephone users are equally likely to call all other telephone users). This calculation implies that approximately 18 percent of ICC expenses are internal transfers.

purchase long distance bundled with local service,¹⁴ and then estimated end users' savings based on the type of carrier they purchase this bundled service from (incumbent LEC, competitive LEC, or wireless provider). Staff assumed that to the extent end users' local service provider purchased wholesale long distance service from an unaffiliated provider, the local carrier would realize 100 percent pass through of the ICC savings,¹⁵ but would pass only a fraction of those savings on to its customers.

8. Specifically, staff began by dividing the total ICC savings from reform among incumbent LEC, competitive LEC, and wireless providers, assuming that each group of carriers realize savings in proportion to their share of total lines.¹⁶ Staff then assumed that incumbent LECs will, on average, pass through at least 50 percent of ICC savings to end users, while CMRS providers and competitive LECs will pass through at least 75 percent of these savings.

9. These are conservative estimates. For example, economic theory suggests that a pure monopolist facing the benchmark case of linear demand would have a 50 percent pass through rate,¹⁷ but many incumbent LECs face at least some direct competition from other fixed voice providers, and virtually all incumbent LECs face at least some competitive pressure in the voice market from CMRS providers, and/or from interconnected or over-the-top VoIP providers. Meanwhile, CMRS providers compete with one or more rivals for virtually all their customers, and, even where CMRS competition is limited, consumers may benefit from nationwide wireless pricing plans. Competitive LECs, likewise, face competition from at least one other wireline provider (the incumbent), as well as, to some degree, from wireless providers. Thus, 75 percent pass through by CMRS carriers and competitive LECs is a conservative estimate. Indeed, in the late 1990s, evidence indicates that reductions of access charges for MCI and AT&T resulted in pass through rates that were close to 100 percent,¹⁸ and even in relatively concentrated industries, pass through rates are generally above 75 percent¹⁹ and findings of higher pass through rates are common.²⁰

¹⁴ This simplifying assumption is likely conservative to the extent that end users, including businesses, that purchase long distance as a stand-alone service are likely to receive greater pass-through of ICC savings than those that purchase the service as part of a bundle. See T.R Beard, G.S. Ford, R.C. Hill & R. Saba, *The Flow Through of Cost Changes in Competitive Telecommunications: Theory and Evidence*, 30 *Empirical Econ.* 555 (2005) (finding evidence of near-100 percent pass through rates for MCI and AT&T from past ICC reductions).

¹⁵ The interexchange market has been shown to be competitive, *see id.*, and staff had no evidence that suggests this has changed. Any inaccuracy in this 100 percent long-distance pass through assumption is likely offset by the conservative nature of staff's end-user pass through estimates.

¹⁶ Line counts are from CTIA Semi-Annual Wireless Industry Survey, June 2011, at 5, http://files.ctia.org/pdf/CTIA_Survey_MY_2011_Graphics.pdf, and Federal Communications Commission, Local Telephone Competition Status, Industry Analysis and Technology Division Wireline Competition Bureau, March 2011, Table 1.

¹⁷ See, e.g., J. Bulow & Pfleiderer, *A Note on the Effect of Cost Changes on Prices*, 91 *J. of Political Economy* 182 (1983); J. Hausman & G. Leonard, *Efficiencies from the Consumer Viewpoint*, 7 *Geo. Mason L. Rev.* 707 (1999).

¹⁸ See T.R Beard, G.S. Ford, R.C. Hill & R. Saba, *supra* note 14.

¹⁹ See Orley Ashenfelter, David Ashmore, Jonathan B. Baker & Signe-Mary McKernan, *Identifying the Firm-Specific Cost Pass-Through Rate*, Jan. 1998, <http://www.ftc.gov/be/workpapers/wp217.pdf> (finding 85 percent pass through for an industry-wide cost reduction in a concentrated industry).

²⁰ See, e.g., Silva-Risso Busse & Zettelmeyer, *\$1,000 cash back: The Pass-Through of Auto Manufacturer Promotions*, 96 *Amer. Econ. Rev.* 1253 (2006) (finding pass through rates for automobile consumer rebates of 70-90 percent, though these fell to 30-40 percent for dealer discounts), D. Besanko, J. P. Dubé, & S. Gupta, *Own-Brand and Cross-Brand Retail Pass-Through*, 24 *Marketing Science* 123 (2005) (finding pass through greater than 100 (continued...))

10. Based on these assumptions, staff concludes that by the end of ICC reform, end users will gain up to \$2.8 billion in annual benefit, compared to 2010, from the reduction of ICC payments subject to the Order's bill-and-keep transition. Because this estimate includes benefits to both businesses and consumers, staff then applied a further discount to account for benefits realized by purchasers of business lines and not passed on to their customers. This leads to an estimate of \$2.6 billion in consumer benefits.²¹

11. This number does not fully reflect the consumer benefits directly attributable to reform, however; it is, instead, an upper bound on those benefits. This is because some reduction in carriers' ICC payments, and therefore some savings to consumers, likely would have occurred even absent reform. In particular, evidence suggests that total termination payments have been on a downward trend in recent years, likely reflecting a combination of three sectoral trends in telephone markets: (1) telephone users dropping fixed voice lines in favor of mobile service (because CMRS carriers cannot collect access revenues, total ICC payments go down as users switch to mobile); (2) telephone users shifting from incumbent LECs to cable-affiliated competitive LECs (to the extent competitive LECs collect lower per-line revenues as a result of VoIP disputes, total ICC payments go down as users switch from wireline incumbents to their cable competitors); and (3) telephone users reducing their per-line minutes-of-use (as minutes of use go down overall, total ICC payments go down). Given these trends, comparing consumer ICC savings under the Order with the savings that would have occurred absent reform requires year-by-year projections of ICC payments over time.

12. To generate these projections, staff separately estimated what ICC revenues price cap incumbent LECs, rate-of-return incumbent LECs, and competitive LECs might each have received absent reform in the coming years. Following the ICC recovery baseline estimates used in the Order, staff assumed price cap carrier revenues would have declined approximately 10 percent annually, and rate-of-return carrier revenues would have declined approximately 5 percent annually, in each case resulting from declines in terminating minutes of use.²² Incumbent LECs' revenue declines would likely have been (Continued from previous page) _____

percent for about 14 percent of 78 products analyzed), J.M. Campa & L.S. Goldberg *Exchange Rate Pass-Through into Import Prices*, 87 *Review of Economics and Statistics* 679 (2005) (finding pass through rates near 100 percent), Besley, T.J. and Rosen, H.S., "Sales Taxes and Prices: An Empirical Analysis," National Bureau of Economic Research Working Paper No. 6667, 1998, available at <http://www.nber.org/papers/w6667> (same), O. Ashenfelter, D. Ashmore, J. B. Baker & S. McKernan, *supra* note 19, J. Menon *Exchange Rate Pass-Through*, 9 *Journal of Economic Surveys* 197 (1998) (same), J.M. Poterba, *Retail Price Reactions to Changes in State and Local Sales Taxes*, 49 *National Tax Journal* 165 (1996) (same), D. Genesove & W.P. Mullin *Testing Static Oligopoly Models: Conduct and Cost in the Sugar Industry*, 29 *RAND Journal of Economics* 355 (1998) (same). Given these data, the estimated CMRS pass through rate of 75 percent can be taken, in the absence of any other information, as a plausible estimate between the monopolist rate of 50 percent, *see supra* note 17, and 100 percent.

²¹ Approximately 69 percent of end user lines are residential or single-line businesses. *See* 2010 USF Monitoring Report, Table 7-9, http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-303886A9.pdf. To the extent single-line businesses—which are small businesses—operate in competitive environments, their gains will be passed on to their customers; but even if they are not fully passed on, these gains directly benefit the consumer who operates the small (single-line) business. Likewise, multi-line businesses that operate in a competitive environment will pass on their gains through to customers. If these businesses pass through, on average, 75 percent of cost savings onto their customers, *see supra* note 20 (describing pass through results in the economic literature), then of the total end user gains calculated above, it is likely that less than 8 percent of the passed-through benefits estimate is kept by business owners. $(100\% - 75\%) \times 31\% < 8\%$. Therefore, staff applied an 8 percent discount to end-user benefits to estimate consumer benefits.

²² *See supra* Section XIII. The Order notes that the status-quo revenue decline for rate-of-return carriers could be as high as 7 percent per year. Staff tested the robustness of the consumer benefits estimate to this assumption, and found that applying a 7 percent decline assumption in place of 5 percent made no significant difference.

offset in part by new revenue to competitive LECs to the extent end users dropping incumbent LEC lines were switching to cable providers or other competitive LECs. Staff lacked reliable data on competitive LEC revenues, however, so staff took a simplified, conservative approach to estimating competitive LEC revenue trends absent reform. Specifically, staff assumed competitive LEC line counts would be generally constant over time, with new customers won from incumbent LECs roughly offsetting any losses, *e.g.*, to CMRS providers, but assuming competitive LECs' total share of fixed lines does not exceed 45 percent.²³ Staff then projected competitive LEC revenue, as described above, assuming competitive LECs receive 25 percent less ICC revenue per line, on average, than incumbent LECs. The result is that staff projects competitive LEC revenue would have decreased moderately over time in the absence of reform, albeit more slowly than for incumbent LECs.

13. These price-cap, rate-of-return, and competitive LEC projections give us year-by-year estimates for the total ICC revenue carriers would have received, absent this Order, for the elements that the Commission is now reforming. For each year of reform under the Order, a growing fraction of per-minute revenues will be eliminated as ICC rates phase down. For purposes of the analysis of consumer benefits, staff focused on 2016 and beyond, at which point the substantial majority of the ICC revenues subject to reform will have been phased down. Specifically, staff estimated that LEC ICC revenues will be less than 10 percent of the no-reform trend line by this point; that is, staff assumed ICC payors will save, in the aggregate, over 90 percent of the no-reform trend line for each year beyond 2016, with the percentage savings growing each year.²⁴

14. Finally, staff estimated the pass through of these savings to consumers using the same basic methodology as above—that is, for each year, staff allocated the savings between ILEC, CLEC, and wireless ICC payors based on national line share, then applied a 75 percent pass through rate for wireless and competitive LEC payors and a 50 percent pass through rate for incumbent LEC payors, and then applied an additional small discount to account for business savings not passed on to consumers. Staff estimated the ratio of wireless to wireline lines in each year of reform based on 7.5 percent annual line loss for wireline carriers and no annual growth for wireless carriers or CLECs. Because wireless and competitive LEC lines are in fact growing, this approach likely understates the wireless and competitive LEC share of ICC savings over time, and therefore again provides a conservative estimate of consumer

²³ This is a conservative assumption. Commission data show that non-LEC lines grew 15 percent from December 2008, when the Commission began line count reporting for interconnected VoIP services, to December 2010. *See* Federal Communications Commission, Local Telephone Competition: Status, as of December 31, 2010, Industry Analysis and Technology Division Wireline Competition Bureau, Oct. 2011, at Table 1, 12 n.1, http://transition.fcc.gov/Daily_Releases/Daily_Business/2011/db1007/DOC-310264A1.pdf. In contrast, not only does the staff analysis assume that competitive CLEC lines do not grow over the next several years, the assumption that their market share does not exceed 45 percent further implies that once the competitive LEC share of all LEC lines has reached this threshold, competitive LECs begin to experience line losses. In addition, the staff analysis conservatively assumes that even after incumbent LEC net losses of subscribers to competitive LECs stops, minutes of use declines, and hence revenue losses, continue.

²⁴ Staff estimated the percentage savings based on the pre-reform blended rates for price-cap and rate-of-return carriers for the rate elements subject to reform. For price cap carriers, the blended rate is \$.011, and for rate-of-return carriers it is \$.044. Under the *Order*, these rates will be reduced to nearly \$.0007 (a 94 percent reduction) and \$.005 (an 89 percent reduction), respectively, by 2016. Weighting these reductions by price-cap and rate-of-return carriers' share of ICC revenues implies a 92 percent reduction in ICC revenues by July 1, 2016. Staff therefore assumed a 90 percent reduction overall in 2016 (including both the January-June period and June-December period), a 94 percent reduction in 2017, and a 98 percent reduction in 2018. Reductions in per minute rates will likely be offset to some extent by increased demand, insofar as lower prices which will result from our reforms will increase consumer usage relative to the no-reform baseline. As described above, however, staff ignored such effects in this analysis in order to be conservative in the estimate of consumer benefits. (Increased usage will translate into increased consumer benefits overall, notwithstanding the additional ICC payments associated with such usage.)

savings.

15. Even taking this conservative approach, staff estimates consumer benefits averaging approximately \$1.5 billion a year between 2016 and 2018. This does not include any estimate of savings to carriers as a result of reduced ICC disputes, or the value of increased certainty in ICC receipts and obligations. These omissions are especially significant given that the \$1.5 billion benefits estimate reflects a comparison of ICC revenues under reform to a trended no-reform baseline: ICC payment declines under the no-reform baseline would likely be accompanied by significant and growing billing disputes, which impose real costs on carriers, and ultimately consumers. Reform reduces total ICC payments without imposing these costs. Given this, and given the other ways in which the \$1.5 billion estimate is conservative, staff concluded that actual benefits to consumers are likely to fall somewhere between this amount and the \$2.6 billion upper bound described above, derived based on untrended 2010 revenues. For example, were one to simply take the midpoint between these values, it would be approximately \$2.1 billion per year.

Consumer Payments: Access Recovery Charges

16. Weighed against these consumer benefits, staff estimated that, at their peak, the annual cost to consumers of ARC increases will likely be less than \$500 million per year, including ARCs paid by businesses, which we expect will be passed through, in whole or in part, to customers, and ARCs paid by consumers directly. The total ARCs that carriers will be permitted to charge under the Order will reach a peak of approximately \$800 million across all end users in 2017 (i.e., including consumers, single-line businesses, and multi-line businesses), and then decline gradually over time with decreases in carriers' Eligible Recovery.²⁵ The ARC increases that consumers and businesses actually see, however, are likely to be 25 to 50 percent less than allowed ARC increases, on average.²⁶ Applying this 25 to 50 percent discount to peak allowable ARC implies that, at their peak year, all end users will likely pay a total of approximately \$500 million, and will pay less in preceding and subsequent years. Staff assumed that businesses will pass 100 percent of ARC increases onto their customers,²⁷ and therefore we estimate total consumer costs will reach approximately \$500 million in the peak year.

17. Comparing this amount to the estimated consumer benefits of ICC reform implies that consumer benefits are likely to outweigh ARC payments by more than 3 to 1, based on a conservative estimate of benefits.

²⁵ See *supra* para. 852.

²⁶ See, e.g., Reply Comments of AT&T Inc. on the Missoula Plan for Intercarrier Compensation Reform, CC Docket No. 01-92, filed Feb. 1, 2007, Exhibit 1 at n. 11 (noting that carriers likely cannot charge full permitted recovery charges on all customers); see also <http://www.phoenix-center.org/perspectives/Perspective11-06Final.pdf> (estimating carriers realize as little as 40 percent recovery of lost ICC revenues from permitted fixed charge increases).

²⁷ This differs from staff's assumption about multiline businesses' pass through of savings, see *supra* note 21, where staff assumed only 75 percent pass through. Using a higher estimate for cost pass through than for savings pass through makes the estimate of the ratio of consumer payments to consumer benefits conservative.

APPENDIX J

List of *USF/ICC Transformation NPRM* Commenters and Reply Commenters

<u>Commenter</u>	<u>Abbreviation</u>
Accipiter Communications	Accipiter
Ad Hoc Telecommunications Users Committee	Ad Hoc
ADTRAN	ADTRAN
Advanced Regional Communications Cooperative	Advanced Regional
Alaska Regulatory Commission	Alaska Commission
Alaska Communications Systems Group	ACS
Alaska Telephone Association	ATA
Albion Telephone Company	Albion Telephone
Alexicon Telecommunications Consulting	Alexicon
Allband Communications Cooperative	Allband Communications
American Cable Association	ACA
American Library Association	ALA
American Public Communications Council	APCC
AT&T	AT&T
Aventure Communications Technology	Aventure
Blooston Rural Carriers	Blooston
Box Top Solutions	Box Top
Cablevision Systems Corporation	Cablevision
Calaveras Telephone Company	Calaveras Telephone
California Emerging Technology Fund	CETF
California Public Utilities Commission	California Commission
Cambridge Telephone Company	Cambridge Telephone
Cascade Utilities	Cascade
Cbeyond, Integra Telecom and tw telecom	Cbeyond et al.
Cellular South	Cellular South
Center for Social Inclusion	Center for Social Inclusion
Central Texas Telephone Cooperative	Central Texas Telephone
CenturyLink	CenturyLink
Charter Communications	Charter
Coalition for Rational Universal Service and Intercarrier Reform	Coalition for Reform
CoBank	CoBank
Comcast Corporation	Comcast
Communications Workers of America	CWA
COMPTEL	COMPTEL
Connected Nation	Connected Nation
Connectiv Solutions	Connectiv
Core Communications	Core
Cox Communications	Cox
Coalition for Rational Universal Service and Intercarrier Reform	CRUSIR
CTIA – The Wireless Association	CTIA
Custer Telephone Cooperative	Custer Telephone
Delhi Telephone Company	Delhi Telephone
District of Columbia Public Service Commission	DC Commission
Docomo Pacific, PR Wireless, Choice Communications, and	DoCoMo et al.

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AST Telecom, d/b/a BlueSky Communications	
Ducor Telephone Company	Ducor Telephone
EarthLink	EarthLink
Empirix	Empirix
FairPoint Communications	FairPoint
Farmers Mutual Telephone Company	Farmers Mutual
FeatureGroup IP	FeatureGroup IP
Fidelity Telephone Company	Fidelity Telephone
Filer Mutual Telephone – Idaho	Filer Mutual-ID
Filer Mutual Telephone – Nevada	Filer Mutual-NV
Florida Public Service Commission	Florida Commission
Free Press	Free Press
Free State Foundation	Free State
Frontier Communications Corporation	Frontier
General Communication	GCI
Global Crossing North America	Global Crossing
Google	Google
Greenlining Institute	Greenlining
Guadalupe Valley Telephone Cooperative	Guadalupe Valley Telephone
GVNW Consulting	GVNW
Hawaiian Telcom	Hawaiian Telcom
Hill Country Telephone Cooperative	Hill Country Telephone
Hospital Sisters Health System	HSBS
ICORE	ICORE
Independent Telephone & Telecommunications Alliance	ITTA
Indiana Utility Regulatory Commission	Indiana Commission
Information Technology Industry Council	ITI
InterBel Telephone Cooperative	InterBel Telephone
Internet2	Internet2
Internert2 Ad Hoc Health Group	Internet2 Health
Iowa Telecommunications Association	ITA
Iowa Utilities Board	IUB
John Staurulakis	JSI
Kalona Cooperative Telephone Company	Kalona Telephone
Kansas Corporation Commission	Kansas Commission
Kansas Rural Independent Telephone Companies, State Independent Telephone Associations and Rural Telecommunication Management Council	Kansas Rural Companies et al.
Level 3 Communications	Level 3
Louisiana Telecommunications Association Small Company Committee	Louisiana Small Company Committee
Madison Telephone	Madison Telephone
Massachusetts Department of Telecommunications and Cable	Massachusetts DTC
Mercatus Center	Mercatus
MetroPCS Communications	MetroPCS
Michigan Public Service Commission	Michigan Commission
Midvale Telephone Exchange – AZ	Midvale Telephone-AZ
Midvale Telephone Exchange – ID	Midvale Telephone-ID
Mississippi Public Service Commission	Mississippi Commission
Missouri Public Service Commission	Missouri Commission
Missouri Small Telephone Company Group	MoSTCG

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Mobile Future	Mobile Future
Moss Adams	Moss Adams
Motalla Telephone Company	Motalla Telephone
MTPCS, d/b/a Cellular One	Cellular One
MTPCS, d/b/a Cellular One, and NE Colorado Cellular, d/b/a Viaero Wireless	Cellular One and Viaero
National Association of Regulatory Utility Commissioners	NARUC
National Association of State Utility Consumer Advocates	NASUCA
National Association of Telecommunications Officers and Advisors	NATOA
National Cable & Telecommunications Association	NCTA
Native Telecom Coalition for Broadband	NTCB
Nebraska Public Service Commission	Nebraska Commission
Nebraska Rural Independent Companies	Nebraska Rural Companies
NECA, NTCA, OPASTCO, WTA and Concurring Associations	Rural Associations
Nehalem Telecommunications	Nehalem Telecom
Neutral Tandem	Neutral Tandem
New America Foundation, Consumers Union and Media Access Project	New America Foundation et al.
The New Jersey Board of Public Utilities	New Jersey Board
New Jersey Division of Rate Counsel	New Jersey Rate Counsel
New York State Public Service Commission	New York Commission
North County Communications Corporation	North County
North Dakota Public Service Commission	North Dakota Commission
Northern Telephone Cooperative	Northern Telephone
NTCH	NTCH
Odessa Office Equipment	Odessa
Ohio Public Utilities Commission	Ohio Commission
Oregon Telecommunications Association	OTA
Pac-West Telecomm	Pac-West
PAETEC, TelePacific RCN and TDS Metrocom	PAETEC et al.
Partner Communications Cooperative	Partner Communications
PCIA—The Wireless Infrastructure Association	PCIA
Pend Oreille Telephone Company	Pend Oreille Telephone
Pine Telephone System	Pine Telephone
Prepaid Card Providers	Prepaid Card Providers
Public Knowledge and the Benton Foundation	Public Knowledge and Benton
Puerto Rico Telephone Company	PRTC
Recently Converted Price Cap Carriers	Price Cap Carriers
Robert Hart	Robert Hart
Rural Broadband Alliance	RBA
Rural Carriers Supporting State Universal Service Funds	Rural Carriers-State USF
Rural Cellular Association	RCA
Rural Independent Competitive Alliance	RICA
Rural Telecommunications Carriers Coalition	RTCC
Rural Telecommunications Group	RTG
Rural Telephone Company – Idaho	Rural Telephone-ID
Rural Telephone Company – Nevada	Rural Telephone-NV
Rural Telephone Service Company	Rural Telephone Service
San Juan Cable, d/b/a OneLink Communications	OneLink
Satellite Broadband Providers	Satellite Providers
Schools, Health and Libraries Broadband Coalition	SHLB Coalition
Scio Mutual Telephone Association	Scio Telephone

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SE Acquisitions, d/b/a SouthEast Telephone	SouthEast Telephone
Smith Bagley	Smith Bagley
Sprint Nextel Corporation	Sprint
St. Louis Broadband	St. Louis Broadband
State Members of the Federal State Joint Board on Universal Service	State Members
SureWest Communications	SureWest
TCA	TCA
TDS Telecommunications Corporation	TDS
TechAmerica	TechAmerica
Telecommunications Association of Maine	TAM
Telecommunications Industry Association	TIA
T-Mobile USA	T-Mobile
Texas Statewide Telephone Cooperative	Texas Telephone
Time Warner Cable	Time Warner Cable
United States Cellular Corporation	U.S. Cellular
United States Telecom Association	USTelecom
Universal Service for America Coalition	USA Coalition
Utah Public Service Commission	Utah Commission
Utah Rural Telecom Association	URTA
Verizon and Verizon Wireless	Verizon
ViaSat	ViaSat
Virgin Islands Public Services Commission	Virgin Islands Commission
Virgin Islands Telephone Corporation	Vitelco
Vonage Holdings Corp.	Vonage
Warinner, Gesinger and Associates	WGA
Washington Independent Telecommunications Association	WITA
Washington Utilities and Transportation Commission	Washington Commission
Wheat State Telephone	Wheat State Telephone
Windstream Communications	Windstream
Wireless Internet Service Providers Association	WISPA
XO Communications	XO
ZipDX	ZipDX

Reply Commenter

Abbreviation

ADTRAN	ADTRAN
Alaska Federation of Natives	Alaska Federation
Alaska Regulatory Commission	Alaska Commission
Alliance for Community Media	Alliance for Community Media
American Cable Association	ACA
American Public Power Association and Iowa Association of Municipal Utilities	APPA and IAMU
Arizona Corporation Commission	Arizona Commission
AT&T	AT&T
Bandwidth.com	Bandwidth.com
Blooston Rural Carriers	Blooston
Brazos Valley Council of Governments, Health Information Exchange of Montana, New England Telehealth Consortium, Oregon Health Network and Utah Telehealth Network	Brazos Valley Council et al.

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Cablevision Systems Corporation	Cablevision
Cbeyond, Integra Telecom and tw telecom	Cbeyond et al.
Cellular South	Cellular South
CenturyLink	CenturyLink
Charter Communications	Charter
Cincinnati Bell	Cincinnati Bell
Comporium Companies	Comporium
Cox Communications	Cox
CTIA – The Wireless Association	CTIA
EarthLink	EarthLink
FairPoint Communications	FairPoint
Fiber-to-the-Home Council	Fiber-to-the-Home
Free State Foundation	Free State
Frontier Communications Corporation	Frontier
General Communication	GCI
Golden West Telecommunications Cooperative, Midstate Communications and Venture Communications Cooperative	Golden West et al.
Granite Telecommunications	Granite
GVNW Consulting	GVNW
Hargray Telephone Company	Hargray Telephone
Hawaii, State of	Hawaii
Hawaiian Telcom	Hawaiian Telcom
HyperCube Telecom	HyperCube
IMPACT 20/20	IMPACT 20/20
Independent Telephone & Telecommunications Alliance	ITTA
Iowa Utilities Board	IUB
IT&E	IT&E
JDS Uniphase Corporation	JDSU
John Staurulakis	JSI
Kansas Rural Independent Telephone Companies, State Independent Telephone Associations and Rural Telecommunication Management Council	Kansas Rural Companies, et al.
LARIAT	LARIAT
Louisiana Telecommunications Association Small Company Committee	Louisiana Small Company Committee
Maine Office of the Public Advocate	Maine Public Advocate
Michigan Public Service Commission	Michigan Commission
Mid-Atlantic Conference of Regulatory Utility Commissions	MACRUC
Mid-Rivers Communications	Mid-Rivers
Minnesota Independent Coalition	MIC
Missouri Small Telephone Company Group	MoSTCG
Montana Independent Telecommunications Systems	MITS
Montana Public Service Commission	Montana Commission
MTPCS, d/b/a Cellular One	Cellular One
National Association of State Utility Consumer Advocates	NASUCA
National Cable & Telecommunications Association	NCTA
Native Telecom Coalition for Broadband	NTCB
Nebraska Rural Independent Companies	Nebraska Rural Companies
NECA, NTCA, OPASTCO, WTA and Concurring Associations	Rural Associations
Neutral Tandem	Neutral Tandem
New America Foundation, Consumers Union and Media Access Project	New America Foundation et al.

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New Jersey Division of Rate Counsel	New Jersey Rate Counsel
New Mexico Public Regulation Commission	New Mexico Commission
NobelTel	NobelTel
Pac-West Telecomm	Pac-West
PAETEC, TelePacific, RCN and TDS Metrocom	PAETEC et al.
PCIA—The Wireless Infrastructure Association	PCIA
Pennsylvania Public Utility Commission	Pennsylvania Commission
Pennsylvania Telephone Association	PTA
Public Service Telephone Company	Public Service Telephone
Puerto Rico Telephone Company	PRTC
Robert Hart	Robert Hart
Rural Broadband Alliance	RBA
Rural Cellular Association	RCA
Rural Telecommunications Carriers Coalition	RTCC
Rural Telecommunications Group	RTG
Rural Telephone Service Company	Rural Telephone Service
San Juan Cable, d/b/a OneLink Communications	OneLink
Satellite Broadband Providers	Satellite Providers
South Dakota Public Utilities Commission	South Dakota Commission
South Dakota Telecommunications Association	SDTA
SouthernLINC Wireless	SouthernLINC
SureWest Communications	SureWest
TCA	TCA
T-Mobile USA	T-Mobile
Total Call International	Total Call
United States Cellular Corporation	U.S. Cellular
Universal Service for America Coalition	USA Coalition
Utah Rural Telecom Association	URTA
Verizon and Verizon Wireless	Verizon
Vermont Department of Public Service and Vermont Public Service Board	Vermont Board
Vonage Holdings Corp.	Vonage
Windstream Communications	Windstream
Wisconsin Public Service Commission	Wisconsin Commission
Wyoming Public Service Commission	Wyoming Commission
XO Communications	XO

APPENDIX K

List of *USF/ICC Transformation NPRM* Section XV Commenters and Reply Commenters

<u>Commenter</u>	<u>Abbreviation</u>
01 Communications and Vaya Telecom	01 and Vaya
Advanced Regional Communications Cooperative	Advanced Regional
Alaska Telephone Association	ATA
Alliance for Telecommunications Industry Solutions	ATIS
American Legislative Exchange Council	ALEC
Association of Teleservices International	Teleservices
AT&T	AT&T
Aventure Communications Technology	Aventure
Beehive Telephone Co.	Beehive
Blooston Rural Carriers	Blooston
Bluegrass Telephone Company, d/b/a Kentucky Telephone, and Northern Valley Communications	Bluegrass
Bright House Networks Information Services	Bright House
Cablevision Systems and Charter Communications	Cablevision and Charter
California Public Utilities Commission	California Commission
Cbeyond, Integra Telecom and tw telecom	Cbeyond et al.
CenturyLink	CenturyLink
Coalition for Rational Universal Service and Intercarrier Reform	CRUSIR
Comcast Corporation	Comcast
COMPTEL	COMPTEL
Connectiv Solutions	Connectiv
Consolidated Communications Holdings	Consolidated
Core Communications	Core
Cox Communications	Cox
CTIA – The Wireless Association	CTIA
Communications Workers of America	CWA
EarthLink	EarthLink
Empirix	Empirix
FairPoint Communications	FairPoint
FeatureGroup IP	FeatureGroup IP
Free Conferencing Corporation	Free Conferencing Corporation
Free State Foundation	Free State
Frontier Communications Corporation	Frontier
Global Conference Partners	Global
Google	Google
GVNW Consulting	GVNW
Hawaiian Telcom	Hawaiian Telcom
HyperCube Telecom	HyperCube
ICORE	ICORE
Independent Telephone & Telecommunications Alliance	ITTA
Indiana Utility Regulatory Commission	Indiana Commission
Iowa Utilities Board	IUB
Kansas Corporation Commission	Kansas Commission

Federal Communications Commission

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Louisiana Telecommunications Association Small Company Committee	Louisiana Small Company Committee
Leap Wireless International and Cricket Communications	Leap Wireless and Cricket
Level 3 Communications	Level 3
MegaPath and Covad Communications Company	MegaPath
MetroPCS Communications	MetroPCS
Michigan Public Service Commission	Michigan Commission
Mississippi Public Service Commission	Mississippi Commission
Missouri Public Service Commission	Missouri Commission
Missouri Small Telephone Company Group	MoSTCG
National Association of Regulatory Utility Commissioners	NARUC
National Association of State Utility Consumer Advocates and New Jersey Division of Rate Counsel	NASUCA and NJ Rate Counsel
Nebraska Rural Independent Companies	Nebraska Rural Companies
NECA, NTCA, OPASTCO, ERTA and WTA	Rural Associations
Neutral Tandem	Neutral Tandem
North County Communications Corporation	North County
Ohio Public Utilities Commission	Ohio Commission
OmniTel Communications and Tekstar Communications	OmniTel and Tekstar
Pennsylvania Public Utility Commission	Pennsylvania Commission
Pac-West Telecomm	Pac-West
PAETEC, TelePacific and RCN	PAETEC et al.
RNK Communications	RNK
Rural LEC Section XV Group	Rural LECs
Sprint Nextel Corporation	Sprint
St. Louis Broadband	St. Louis Broadband
SureWest Communications	SureWest
TCA	TCA
TDS Telecommunications Corporation	TDS
TEXALTEL	TEXALTEL
T-Mobile USA	T-Mobile
Texas Statewide Telephone Cooperative	Texas Telephone
Time Warner Cable	Time Warner Cable
Toledo Telephone Company	Toledo Telephone
United States Telecom Association	USTelecom
Verizon and Verizon Wireless	Verizon
Voice on the Net Coalition	VON Coalition
Vonage Holdings Corp.	Vonage
Warinner, Gesinger and Associates	WGA
Washington Utilities and Transportation Commission	Washington Commission
Windstream Communications	Windstream
XO Communications	XO
YMax Corporation	YMax
ZipDX	ZipDX

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Reply Commenter

Abbreviation

AT&T	AT&T
Beehive Telephone Co.	Beehive
Bluegrass Telephone Company, d/b/a Kentucky Telephone, and Northern Valley Communications	Bluegrass
Bright House Networks Information Services	Bright House
Cablevision Systems and Charter Communications	Cablevision and Charter
Cbeyond, Integra Telecom and tw telecom	Cbeyond et al.
CenturyLink	CenturyLink
Coalition for Rational Universal Service and Intercarrier Reform	Coalition for Reform
Comcast Corporation	Comcast
COMPTEL	COMPTEL
Consolidated Communications Holdings	Consolidated
Core Communications	Core
Cox Communications	Cox
Coalition for Rational Universal Service and Intercarrier Reform	CRUSIR
EarthLink	EarthLink
FeatureGroup IP	FeatureGroup IP
Free Conferencing Corporation	Free Conferencing Corporation
Frontier Communications Corporation	Frontier
Global Conference Partners	Global
Halo Wireless	Halo
HyperCube Telecom	HyperCube
Independent Telephone & Telecommunications Alliance	ITTA
Iowa Telecommunications Association	Iowa Telecom Association
Level 3 Communications	Level 3
Michigan Public Service Commission	Michigan Commission
Montana Independent Telecommunications Systems	Montana Telecom Systems
National Association of State Utility Consumer Advocates and New Jersey Division of Rate Counsel	NASUCA and NJ Rate Counsel
Nebraska Public Service Commission	Nebraska Commission
Nebraska Rural Independent Companies	Nebraska Rural Companies
NECA, NTCA, OPASTCO, ERTA and WTA	Rural Associations
North County Communications Corporation	North County
OmniTel Communications and Tekstar Communications	OmniTel and Tekstar
Pac-West Telecomm	Pac-West
PAETEC, TelePacific and RCN	PAETEC et al.
Sprint Nextel Corporation	Sprint
Time Warner Cable	Time Warner Cable
UTEX Communications Corp., d/b/a FeatureGroup IP	UTEX
Vonage Holdings Corp.	Vonage
Verizon and Verizon Wireless	Verizon
XO Communications	XO

APPENDIX L

WT Docket No. 10-208

**Lists of *Mobility Fund NPRM* and *Mobility Fund Tribal Public Notice Commenters*
and Reply Commenters**

Mobility Fund NPRM

Commenter**Abbreviation**

Alaska Communications Systems	ACS
Alaska Telephone Association	ATA
AT&T	AT&T
Blooston Rural Carriers	Blooston
California Public Utilities Commission	California Commission
Cellular South; NE Colorado Cellular, d/b/a Viaero Wireless; Rural Cellular Association; and Westlink Communications	Cellular South et al.
CenturyLink	CenturyLink
Commnet Wireless	Commnet
CTIA – The Wireless Association	CTIA
Free Press	Free Press
General Communication	GCI
Gila River Telecommunications	Gila River
Greenlining Institute	Greenlining
GVNW Consulting	GVNW
Independent Telephone & Telecommunications Alliance	ITTA
Indiana Utility Regulatory Commission	Indiana Commission
Joint Center for Political and Economic Studies	JCPES
MetroPCS Communications	MetroPCS
Mid-Rivers Telephone Cooperative and Cable & Communications Corporation, d/b/a Mid-Rivers Communications	Mid-Rivers
Mobile Future	Mobile Future
MTPCS, d/b/a Cellular One	Cellular One
National Association of State Utility Consumer Advocates	NASUCA
National Cable & Telecommunications Association	NCTA
National Tribal Telecommunications Association	NTTA
Native Public Media and the National Congress of American Indians	Native Public Media
NECA, NTCA, OPASTCO, ERTA and WTA	NECA et al.
New EA, d/b/a Flow Mobile	New EA
NTCH	NTCH
Ohio Public Utilities Commission	Ohio Commission
PCIA – The Wireless Infrastructure Association	PCIA
PR Wireless	PR Wireless
Rural Cellular Association	RCA
Rural Telecommunications Group	RTG
Sprint Nextel Corporation	Sprint

Federal Communications Commission

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TechAmerica
Telecommunications Industry Association
Texas Statewide Telephone Cooperative
T-Mobile USA
U.S. Cellular
United States Telecom Association
USA Coalition
Verizon and Verizon Wireless
Windstream Communications
Worldcall Interconnect

TechAmerica
TIA
Texas Statewide Coop
T-Mobile
US Cellular
USTelecom
USA Coalition
Verizon
Windstream
Worldcall

Reply Commenter

Alaska Governor’s Office
Alaska Regulatory Commission
American Cable Association
Benton Foundation, New America Foundation and Office of
Communication for the United Church of Christ
Communications Workers of America
CTIA – The Wireless Association
Florida Public Service Commission
General Communication
Greenlining Institute
Hispanic Information and Telecommunications Network
Native Public Media and the National Congress of American Indians
Navajo Nation Telecommunications Regulatory Commission
NE Colorado Cellular, d/b/a Viaero Wireless
PCIA – The Wireless Infrastructure Association
PR Wireless
Rural Cellular Association
Rural Independent Competitive Alliance
SouthernLINC Wireless
Telecommunications Industry Association
Texas Statewide Telephone Cooperative
U.S. Cellular
USA Coalition
Verizon and Verizon Wireless
Windstream Communications

Abbreviation

Alaska Governor
Alaska Commission
ACA
Benton et al.

CWA
CTIA
Florida Commission
GCI
Greenlining
HITN
Native Public Media
Navajo Commission
Viaero Wireless
PCIA
PR Wireless
RCA
RICA
SouthernLINC
TIA
Texas Statewide Coop
US Cellular
USA Coalition
Verizon
Windstream

Mobility Fund Tribal Public Notice

Commenter

Alaska Telephone Association, Alaska Communications
and General Communications
Kawerak
National Tribal Telecommunications Association
Native Public Media and the National Congress of American Indians

Abbreviation

ATA et al.

Kawerak
NTTA
Native Public Media

Federal Communications Commission

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NTCH
Smith Bagley
Southern California Tribal Digital Village
The Standing Rock Sioux Tribe and Standing Rock
Telecommunications
Twin Houses Consulting
Winnebago Tribe of Nebraska

NTCH
Smith Bagley
SoCal TDV
Standing Rock
Twin Houses
Winnebago Tribe

APPENDIX M

List of August 3, 2011 Public Notice Commenters and Reply Commenters

<u>Commenter</u>	<u>Abbreviation</u>
AARP	AARP
ADTRAN	ADTRAN
Ad Hoc Telecommunications Users Committee	Ad Hoc
Alaska Communications Systems Group	ACS
Alaska Rural Coalition	ARC
Alexicon Telecommunications Consulting	Alexicon
American Cable Association	ACA
Asian American Justice Center	AAJC
AT&T, CenturyLink, Fairpoint, Frontier, Verizon and Windstream	ABC Plan Proponents
Arizona Local Exchange Carrier Association	ALECA
Bright House Networks Information Services	Bright House
California Independent Telephone Companies, Colorado Telecommunications Association, Idaho Telecom Alliance, Montana Telecommunications Association, Oregon Telecommunications Association, Washington Independent Telecommunications Association and Wyoming Telecommunications Association	CITC et al.
California Public Utilities Commission	California Commission
Cbeyond, Integra Telecom and tw telecom	Cbeyond et al.
Cellular South	Cellular South
Charter Communications	Charter
Cincinnati Bell	Cincinnati Bell
Coalition for Rational Universal Service and Intercarrier Reform	CRUSIR
Comcast Corporation	Comcast
Communications Workers of America	CWA
COMPTEL	COMPTEL
Connecticut Public Utilities Regulatory Authority	Connecticut PURA
Consolidated Communications Holdings	Consolidated
Cox Communications	Cox
CTIA – The Wireless Association	CTIA
Delaware Public Service Commission	Delaware Commission
District of Columbia Public Service Commission	DC Commission
EarthLink	EarthLink
Free Conferencing Corporation	Free Conferencing Corporation
Free Press	Free Press
Free State Foundation	Free State
General Communication	GCI
Gila River Telecommunications	Gila River
Google	Google
Granite Telecommunications	Granite
Greenlining Institute	Greenlining
GTA Telecom	GTA
GVNW Consulting	GVNW

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Hargray Telephone Company	Hargray Telephone
Hawaii, State of	Hawaii
Hawaiian Telcom	Hawaiian Telcom
Hispanic Technology and Telecommunications Partnership	HTTP
HyperCube Telecom	HyperCube
iBasis Retail	iBasis
ICORE	ICORE
Illinois Independent Telephone Association	Illinois Independents
InCharge Systems	InCharge
Independent Telephone & Telecommunications Alliance, Cincinnati Bell, Hargray Telephone Company and HickoryTech Corporation	ITTA et al.
Indiana Telecommunications Association	ITA
Indiana Utility Regulatory Commission	Indiana Commission
Iowa Utilities Board	IUB
IT&E	IT&E
Kansas Rural Independent Telephone Companies, State Independent Telephone Associations and Rural Telecommunication Management Council	Kansas Rural Companies, et al.
Level 3 Communications	Level 3
Louisiana Public Service Commission	Louisiana Commission
Louisiana Public Service Commissioner Holloway	Louisiana Comm'r Holloway
Louisiana Public Service Commissioner Skrmetta	Louisiana Comm'r Skrmetta
Louisiana Telecommunications Association Small Company Committee	Louisiana Small Company Committee
Maine Public Utilities Commission and Vermont Public Service Board	Maine and Vermont Commissions
Massachusetts Department of Telecommunications and Cable	Massachusetts DTC
Mendocino Community Network	Mendocino
MetroPCS Communications	MetroPCS
Michigan Public Service Commission	Michigan Commission
Missouri Public Service Commission	Missouri Commission
Missouri Telecommunications Industry Association	MTIA
Mobile Future	Mobile Future
Moss Adams	Moss Adams
MTPCS, d/b/a Cellular One	Cellular One
National Association of Regulatory Utility Commissioners	NARUC
National Association of State Utility Consumer Advocates	NASUCA
National Cable & Telecommunications Association	NCTA
National Tribal Telecommunications Association	NTTA
Native Telecom Coalition for Broadband	NTCB
Nebraska Public Service Commission	Nebraska Commission
Nebraska Rural Independent Companies	Nebraska Rural Companies
NECA, NTCA, OPASTCO and WTA	Rural Associations
Nevada Telecommunications Association	NTA
New Hampshire Public Utilities Commission	New Hampshire Commission
New Jersey Board of Public Utilities	New Jersey Board
New Mexico Exchange Carrier Group	NMECG
New York State Public Service Commission	New York Commission
NE Colorado Cellular, d/b/a Viaero Wireless	Viaero Wireless
Ohio Public Utilities Commission	Ohio Commission

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Ohio Telecom Association	Ohio TA
Oklahoma Telephone Association	Oklahoma TA
Oregon Public Utility Commission	Oregon Commission
Pac-West Telecomm	Pac-West
PAETEC Holding Corp.	PAETEC
Pennsylvania Public Utility Commission	Pennsylvania Commission
Panhandle Telecommunication Systems	Panhandle
Public Knowledge and the Benton Foundation	Public Knowledge and Benton
Puerto Rico Telephone Company	PRTC
Reason Foundation	Reason
Rural Arkansas Telephone Systems	Rural Arkansas
Rural Broadband Alliance	RBA
Rural Cellular Association	RCA
Rural Independent Competitive Alliance	RICA
Rural Telecommunications Group	RTG
Satellite Broadband Providers	Satellite Providers
Schools, Health and Libraries Broadband Coalition	SHLB Coalition
Smith Bagley	Smith Bagley
South Dakota Public Utilities Commission	South Dakota Commission
South Dakota Telecommunications Association	SDTA
SouthernLINC Wireless	SouthernLINC
Sprint Nextel Corporation	Sprint
Standing Rock Sioux Tribe and Standing Rock Telecommunications	Standing Rock
SureWest Communications	SureWest
TCA	TCA
TDS Telecommunications Corporation	TDS
Telecommunications Industry Association	TIA
Tennessee Regulatory Authority	Tennessee Commission
Texas Statewide Telephone Cooperative	Texas Telephone
Time Warner Cable	Time Warner Cable
T-Mobile USA	T-Mobile
United States Cellular Corporation	U.S. Cellular
Universal Service for America Coalition	USA Coalition
U.S. Distance Learning Association	USDLA
Valley Telephone Cooperative	Valley Telephone
Virginia State Corporation Commission Staff	Virginia Commission
Vonage Holdings Corp.	Vonage
Voice on the Net Coalition	VON Coalition
Washington Utilities and Transportation Commission	Washington Commission
Wisconsin Public Service Commission	Wisconsin Commission
Wisconsin State Telecommunications Association	WSTA
XO Communications	XO

Federal Communications Commission**FCC 11-161****Reply Commenter**

Alaska Communications Systems Group
 Alaska Regulatory Commission
 Alaska Rural Coalition
 American Cable Association
 AT&T, CenturyLink, Fairpoint, Frontier, Verizon and Windstream
 Bandwidth.com
 Blooston Rural Carriers
 Bright House Networks Information Services
 BT Americas
 Cablevision Systems Corporation
 Cbeyond, Integra Telecom and tw telecom
 Cellular South
 Charter Communications
 Coalition of Large Tribes and Great Plains Tribal Chairman's
 Association
 Coalition for Rational Universal Service and Intercarrier Reform
 Consumer Federation of America and Consumers Union
 Cox Communications
 Docomo Pacific, PR Wireless and Choice Communications
 Fiber-to-the-Home Council
 Free Conferencing Corporation
 General Communication
 GVNW Consulting
 Hargray Telephone Company
 Hawaiian Telcom
 Home Telephone Company
 HyperCube Telecom
 Independent Telephone & Telecommunications Alliance, Cincinnati
 Bell, Hargray Telephone Company and HickoryTech
 Corporation
 Information Technology and Innovation Foundation
 Iowa Association of Municipal Utilities
 Iowa Telecommunications Association
 Kansas Corporation Commission
 LARIAT
 Level 3 Communications
 LightSquared Subsidiary
 Maryland Public Service Commission
 MegaPath and Covad Communications Company
 MetroPCS Communications
 Michigan Public Service Commission
 Midcontinent Communications
 Mid-Rivers Communications
 Minnesota Independent Coalition
 Montana Independent Telecommunications Systems
 Montana Public Service Commission
 MTPCS, d/b/a Cellular One
 National Association of State Utility Consumer Advocates

Abbreviation

ACS
 Alaska Commission
 ARC
 ACA
 ABC Plan Proponents
 Bandwidth.com
 Blooston
 Bright House
 BT
 Cablevision
 Cbeyond et al.
 Cellular South
 Charter
 COLT and GPTCA

 CRUSIR
 CFA and CU
 Cox
 Docomo et al.
 Fiber-to-the-Home
 Free Conferencing Corporation
 GCI
 GVNW
 Hargray Telephone
 Hawaiian Telcom
 Home Telephone
 HyperCube
 ITTA et al.

 ITIF
 IAMU
 ITA
 Kansas Commission
 LARIAT
 Level 3
 LightSquared
 Maryland Commission
 MegaPath
 MetroPCS
 Michigan Commission
 Midcontinent
 Mid-Rivers
 MIC
 MITS
 Montana Commission
 Cellular One
 NASUCA

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National Congress of Black Women	NCBW
Native Telecom Coalition for Broadband	NTCB
Nebraska Rural Independent Companies	Nebraska Rural Companies
NECA, NTCA, OPASTCO and WTA	Rural Associations
NE Colorado Cellular, d/b/a Viaero Wireless	Viaero Wireless
Neutral Tandem	Neutral Tandem
Nevada Public Utilities Commission	Nevada Commission
New America Foundation, Consumers Union and Media Access Project	New America Foundation et al.
Northern Telephone & Data Corporation	NTD
Pac-West Telecomm	Pac-West
PAETEC Holding Corp.	PAETEC
Pennsylvania Public Utility Commission	Pennsylvania Commission
Puerto Rico Telephone Company	PRTC
Ronan Telephone Company and Hot Springs Telephone Company	Ronan and Hot Springs
Rural Cellular Association	RCA
Rural Coalition	Rural Coalition
Rural Iowa Independent Telephone Association	RIITA
Rural Telecommunications Group	RTG
Satellite Broadband Providers	Satellite Providers
Smith Bagley	Smith Bagley
SouthernLINC Wireless	SouthernLINC
TDS Metrocom	TDS Metrocom
Texas Statewide Telephone Cooperative	Texas Telephone
United States Cellular Corporation	U.S. Cellular
Universal Service for America Coalition	USA Coalition
Virgin Islands Telephone Corporation	Vitelco
Vonage Holdings Corp.	Vonage
WideOpenWest Finance	WOW
Wyoming Public Service Commission	Wyoming Commission

APPENDIX N

Illustrative Form of Letter Of Credit

[Subject to Issuing Bank Requirements]

No. _____

[Name and Address of Issuing Bank]

[Date of Issuance]

[AMOUNT]

[EXPIRATION DATE]

BENEFICIARY

[USAC]

[Address]

LETTER OF CREDIT PROVIDER

[Winning Bidder Name]

[Address]

Ladies and Gentlemen:

We hereby establish, at the request and for the account of [Winning Bidder], in your favor, as required under the [Report and Order, adopted on October 27, 2011] issued by the Federal Communications Commission ("FCC") in the matter of [Connect America Fund, WC Docket 10-90] (the "Order"), our Irrevocable Standby Letter of Credit No. _____, in the amount of [State amount of Letter of Credit in words and figures]. NOTE: The amount of the Letter of Credit shall increase/additional letter(s) of credit shall be issued as additional funds are disbursed pursuant to the terms of the Order], expiring at the close of banking business at our office described in the following paragraph, on [the date which is ___ years from the date of issuance/ or the date which is one year from the date of issuance, provided the Issuing Bank includes an evergreen clause that provides for automatic renewal unless the Issuing Bank gives notice of non-renewal to USAC by a nationally recognized overnight delivery service, with a copy to the FCC, at least sixty days but not more than ninety days prior to the expiry thereof], or such earlier date as the Letter of Credit is terminated by [USAC] (the "Expiration Date"). Capitalized terms used herein but not defined herein shall have the meanings accorded such terms in the Order.

Funds under this Letter of Credit are available to you against your draft in the form attached hereto as Annex A, drawn on our office described below, and referring thereon to the number of this Letter of Credit, accompanied by your written and completed certificate signed by you substantially in the form of Annex B attached hereto. Such draft and certificates shall be dated the date of presentation or an earlier date, which presentation shall be made at our office located at [BANK ADDRESS] and shall

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be effected either by personal delivery or delivery by a nationally recognized overnight delivery service. We hereby commit and agree to accept such presentation at such office, and if such presentation of documents appears on its face to comply with the terms and conditions of this Letter of Credit, on or prior to the Expiration Date, we will honor the same not later than the first banking day after presentation thereof in accordance with your payment instructions. Payment under this Letter of Credit shall be made by [check/wire transfer of Federal Reserve Bank of New York funds] to the payee and for the account you designate, in accordance with the instructions set forth in a draft presented in connection with a draw under this Letter of Credit.

Partial drawings are not permitted under this Letter of Credit. This Letter of Credit is not transferable or assignable in whole or in part.

This Letter of Credit shall be canceled and terminated upon receipt by us of the [USAC's] certificate purportedly signed by two authorized representatives of [USAC] in the form attached as Annex C.

This Letter of Credit sets forth in full the undertaking of the Issuer, and such undertaking shall not in any way be modified, amended, amplified or limited by reference to any document, instrument or agreement referred to herein, except only the certificates and the drafts referred to herein and the ISP (as defined below); and any such reference shall not be deemed to incorporate herein by reference any document, instrument or agreement except for such certificates and such drafts and the ISP.

This Letter of Credit shall be subject to, governed by, and construed in accordance with, the International Standby Practices 1998, International Chamber of Commerce Publication No. 590 (the "ISP"), which is incorporated into the text of this Letter of Credit by this reference, and, to the extent not inconsistent therewith, the laws of the State of New York, including the Uniform Commercial Code as in effect in the State of New York. Communications with respect to this Letter of Credit shall be addressed to us at our address set forth below, specifically referring to the number of this Letter of Credit.

[NAME OF BANK]

[BANK SIGNATURE]

Federal Communications Commission

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ANNEX A

Form of Draft

To: [Issuing Bank]

DRAWN ON LETTER OF CREDIT No: _____

AT SIGHT

PAY TO THE ORDER OF [USAC] BY [CHECK/WIRE TRANSFER OF FEDERAL
RESERVE BANK OF NEW YORK]

FUNDS TO: _____

Account (_____)

AS [MOBILITY FUND REPAYMENT]

[AMOUNT IN WORDS] DOLLARS AND NO/CENTS

[\$AMOUNT IN NUMBERS]

Universal Service Administrative Company

By: _____
Name:
Title:

ANNEX B

Draw Certificate

The undersigned hereby certifies to [Name of Bank] (the "Bank"), with reference to (a) Irrevocable Standby Letter of Credit No. [Number] (the "Letter of Credit") issued by the Bank in favor of the Universal Service Administrative Company ("USAC") and (b) [paragraph ___] of the [Report and Order, adopted on October 27, 2011] issued by the Federal Communications Commission in the matter of [Connect America Fund, WC Docket 10-90] (the "Order"), pursuant to which [Name of Winning Bidder] (the "LC Provider") has provided the Letter of Credit (all capitalized terms used herein but not defined herein having the meaning stated in the Order), that:

[The [Name of Winning Bidder] has [describe the event that triggers the draw], and is evidenced by a letter signed by the Chief of the [Wireless Telecommunications Bureau/Wireline Competition Bureau] or [his/her] designee, dated __, 20__, a true copy of which is attached hereto.] Accordingly, a draw of the entire amount of the Letter of Credit No. _____ is authorized.]

OR

[USAC certifies that given notice of non-renewal of Letter of Credit No. _____ and failure of the account party to obtain a satisfactory replacement thereof, pursuant to the Order, USAC is entitled to receive payment of \$_____ representing the entire amount of Letter of Credit No. _____.]

IN WITNESS WHEREOF, the undersigned has executed this certificate as of [specify time of day] on the ___ day of _____, 201__.

Universal Service Administrative Company

By: _____

Name:

Title:

ANNEX C

Certificate Regarding Termination of Letter of Credit

The undersigned hereby certifies to [Name of Bank] (the "Bank"), with reference to (a) Irrevocable Standby Letter of Credit No. [Number] (the "Letter of Credit") issued by the Bank in favor of the Universal Service Administrative Company ("USAC"), and (b) paragraph [____] of the [Report and Order adopted on October 27, 2011] issued by the Federal Communications Commission ("FCC") in the matter of [Connect America Fund, WC Docket 10-90] (the "Order"), (all capitalized terms used herein but not defined herein having the meaning stated or described in the Order), that:

(1) [include one of the following clauses, as applicable]

(a) The Order has been fulfilled in accordance with the provisions thereof; or

(b) [LC Provider/Winning Bidder] has provided a replacement letter of credit satisfactory to the FCC.

(2) By reason of the event or circumstance described in paragraph (1) of this certificate and effective upon the receipt by the Bank of this certificate (countersigned as set forth below), the Letter of Credit is terminated.

IN WITNESS WHEREOF, the undersigned has executed this certificate as of the ____ day of _____, 201_.

Universal Service Administrative Company

By: _____ Name:
Title:

By: _____
Name:
Title:

COUNTERSIGNED:

Federal Communications Commission

By: _____
Name:
Its Authorized Signatory

APPENDIX O

Final Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980 (RFA),¹ as amended, Initial Regulatory Flexibility Analyses (IRFAs) were incorporated in the *Notice of Proposed Rule Making and Further Notice of Proposed Rulemaking (USF/ICC Transformation NRPM)*, in the *Notice of Inquiry and Notice of Proposed Rulemaking (USF Reform NOI/NPRM)*, and in the *Notice of Proposed Rulemaking (Mobility Fund NPRM)* for this proceeding.² The Commission sought written public comment on the proposals in the *USF/ICC Transformation NRPM*, including comment on the IRFA. The Commission received comments on the *USF/ICC Transformation NPRM* IRFA.³ The comments received are discussed below. The Commission did not receive comments on the *USF Reform NOI/NPRM* IRFA or the *Mobility Fund NPRM* IRFA. This present Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.⁴

A. Need for, and Objectives of, the Order

2. The Order adopts fiscally responsible, accountable, incentive-based policies to transition outdated universal service and intercarrier compensation (ICC) systems to the Connect America Fund (CAF), ensuring fairness for consumers and addressing the challenges of today and tomorrow, instead of yesterday. We adopt measured but firm glide paths to provide industry with certainty and sufficient time to adapt to a changed landscape, and establish a regulatory framework which will ultimately distribute all universal service funding in the most efficient and technologically neutral manner possible.

3. For decades, the Commission and the states have administered a complex system of explicit and implicit subsidies to support voice connectivity to the highest cost, most rural, and insular communities in the nation. Networks that provide only voice service, however, are no longer adequate for the country's communication needs. Broadband and mobility have become crucial to our nation's economic development, global competitiveness, and civic life. Businesses need broadband and mobile communications to attract customers and employees, job-seekers need them to find jobs and training, and children need them to get a world-class education. Broadband and mobility also help lower the costs and improve the quality of health care, and enable people with disabilities and Americans of all income levels

¹ 5 U.S.C. § 603. The RFA, 5 U.S.C. §§ 601-612 has been amended by the Contract With America Advancement Act of 1996, Public Law No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

² *Connect America Fund; A National Broadband Plan for Our Future; Establishing Just and Reasonable Rates for Local Exchange Carriers; High-Cost Universal Service Support; Developing an Unified Intercarrier Compensation Regime; Federal-State Joint Board on Universal Service; Lifeline and Link-Up*, WC Docket Nos. 10-90, 07-135, 05-337, 03-109, GN Docket No. 09-51, CC Docket Nos. 01-92, 96-45, Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking, 26 FCC Rcd 4554 (2011) (*USF/ICC Transformation NRPM*); *Universal Service Reform – Mobility Fund*, WT Docket No. 10-208, Notice of Proposed Rulemaking, 25 FCC Rcd 14,716 (2010) (*"Mobility Fund NPRM"*).

³ See Furchtgott-Roth Economic Enterprises *USF/ICC Transformation NPRM Ex Parte* Comments at 14; Bluegrass Telephone Company *USF/ICC Transformation NPRM* Comments at 35-36; Letter from Brenda Crosby, President, Cascade Utilities, Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 10-90, et al., at 3 (filed April 6, 2011); Molalla Telephone Company *USF/ICC Transformation NPRM* at 3; Letter from John Hemphill, Vice President, Pine Telephone System, Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 10-90, et al., at 3 (filed March 30, 2011); Letter from Dave Osborn, Valley Telephone Cooperative, Inc. to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 10-90, et al., at 3 (filed August 29, 2011).

⁴ See 5 U.S.C. § 604.

to participate more fully in society. Broadband-enabled jobs are critical to our nation's economic recovery and long-term economic health, particularly in small towns, rural and insular areas, and Tribal lands.

4. Too many Americans today, however, do not have access to modern networks that support mobility and broadband. Millions of Americans live in areas where there is no access to any broadband network. And millions of Americans live, work, or travel in areas without mobile broadband. There are unserved areas in every state of the nation and its territories, and in many of these areas there is little reason to believe that access to broadband service will be provided to these areas in the near future with current policies.⁵

5. Consistent with the challenge of ensuring that all Americans are offered basic voice service and access to networks that support high-speed Internet access where they live, work and travel, extending and accelerating broadband and advanced mobile wireless deployment have been two of the Commission's top priorities over the past few years. The Order focuses on those remote and expensive-to-serve communities where the immediate prospect for stand-alone private sector action is limited.

6. Our existing voice-centric universal service system is built on decades-old assumptions that fail to reflect today's networks, the evolving nature of communications services, or the current competitive landscape. As a result, the current system is not equipped to address the universal service challenges raised by broadband, mobility, and the transition to Internet Protocol (IP) networks.⁶

7. With respect to voice services, consumers are increasingly obtaining such services over broadband networks as well as over traditional circuit switched telephone networks. In the Order, the Commission amends its rules to specify that the functionalities of eligible voice telephony services. The amended definition shifts to a technologically neutral approach, allowing companies to provision voice service over any platform, including the PSTN and IP networks.

8. With respect to broadband, the component of the Universal Service Fund (USF) that supports telecommunications service in high-cost areas has grown from \$2.6 billion in 2001 to a projected \$4.5 billion in 2011, but recipients lack any accountability for advancing broadband-capable infrastructure that delivers voice service. We also lack sufficient mechanisms to ensure all Commission funded broadband investments are prudent and efficient, including the means to target investment to areas that lack a private business case to build broadband. In addition, the "rural-rural" divide must also be addressed—some parts of rural America are connected to state-of-the-art broadband, while other parts of rural America have no broadband access, because the existing program fails to direct money to all parts of rural America where it is needed. Similarly, the Fund supports some mobile providers, but only based on cost characteristics and locations of wireline providers. As a result, the universal service program provides more than \$1 billion in annual support to wireless carriers, yet there remain many areas of the country where people live, work, and travel that lack mobile voice coverage, and still larger geographic areas that lack mobile broadband coverage.⁷

9. For the first time, the Commission establishes a defined budget for the high-cost component of the universal service fund.⁸ Establishing a CAF budget ensures that individual consumers will not pay more in contributions due to the reforms we adopt today. We therefore establish an annual funding target, set at the same level as our current estimate for the size of the high-cost program for FY

⁵ See *supra* Section I.

⁶ See *id.*

⁷ See *id.*

⁸ See *supra* Section VII.B.

2011, of no more than \$4.5 billion. The total \$4.5 billion budget will include CAF support resulting from intercarrier compensation reform, as well as new CAF funding for broadband and support for legacy programs during a transitional period.

10. In the Order, the Commission adopts rules that transform the existing high-cost program—the component of USF directed toward high-cost, rural, and insular areas—into a new, more efficient, broadband-focused Connect America Fund (CAF). In particular, we adopt a framework for the Connect America Fund that will provide support in price cap territories based on a combination of competitive bidding and a forward-looking cost model.

11. In order to take immediate steps to accelerate broadband deployment to unserved areas across America, we modify our rules to provide support to price cap carriers under a transitional distribution mechanism, CAF Phase I, while the cost model is being developed and competitive bidding rules finalized. Specifically, effective in 2012, we freeze support to price cap carriers and their rate-of-return affiliates under our existing high-cost support mechanism: high-cost loop support (HCLS) including safety net additive (SNA), forward-looking model support, local switching support (LSS), interstate access support (IAS), and frozen interstate common line support (ICLS).⁹ In addition, we will dedicate up to \$300 million in incremental support to price cap carriers each year of CAF Phase I, allocated to carriers serving areas with the highest costs; carriers accepting incremental support will be required to meet defined broadband deployment obligations.¹⁰

12. We adopt an approach that enables competitive bidding for CAF Phase II support in the near-term in some price cap areas, while in other areas holding the incumbent carrier to broadband and other public interest obligations over large geographies in return for five years of CAF support. Specifically, we adopt the following methodology for providing CAF support in price cap areas. First, the Commission will model forward-looking costs to estimate the cost of deploying broadband-capable networks in high-cost areas and identify at a granular level the areas where support will be available. Second, using the cost model, the Commission will offer each price cap LEC annual support for a period of five years in exchange for a commitment to offer voice across its service territory within a state and broadband service to supported locations within that service territory, subject to robust public interest obligations and accountability standards. Third, for all territories for which price cap LECs decline to make that commitment, the Commission will award ongoing support through a competitive bidding mechanism.

13. We reform legacy support mechanisms for rate-of-return carriers to transition towards a more incentive-based form of regulation with better incentives for efficient operations. In particular, we implement a number of reforms to eliminate waste and inefficiency and improve incentives for rational investment and operation by rate-of-return LECs. Consistent with the framework we establish for support in price cap territories that combines a new forward-looking cost model and competitive bidding, we also lay the foundation for subsequent Commission action that will advance rate-of-return companies on a path toward a more incentive-based form of regulation.¹¹

14. We adopt the following reforms that will ensure that the overall size of the Fund is kept within budget while we transition a system that supports only telephone service to a system that will enable the deployment of modern high-speed networks capable of delivering 21st century broadband services and applications, including voice: First, we establish benchmarks that, for the first time, will establish parameters for what actual costs carriers may seek recovery under the federal universal service

⁹ See *supra* Section VII.C.

¹⁰ See *id.*

¹¹ See *supra* Section VII.D.

program. Second, we take immediate steps to ensure that carriers in rural areas are not unfairly burdening consumers across the nation by using excess universal service support to subsidize artificially low end-user rates. Third, we eliminate the safety net additive program, which is no longer meeting its intended purpose. Fourth, we eliminate local switching support in July 2012 whereby recovery for switching investment will occur through the ICC recovery mechanism. Fifth, we eliminate support for rate-of-return companies in any study area that is completely overlapped by an unsubsidized facilities-based terrestrial competitor that offers fixed voice as well as broadband services meeting specified performance standards, as there is no need for universal service subsidies in these cases. Sixth, starting January 1, 2012, support in excess of \$250 per line per month will no longer be provided to any carrier.¹²

15. We eliminate the identical support rule. Over a decade of experience with the operation of the current rule and having received a multitude of comments noting that the current rule fails to efficiently target support where it is needed, we conclude that this rule has not functioned as intended. Identical support does not provide appropriate levels of support for the efficient deployment of mobile services in areas that do not support a private business case for mobile voice and broadband. Because the explicit support for mobility that we adopt today will be designed to appropriately target funds to such areas, the identical support rule is no longer necessary or in the public interest.¹³

16. We transition existing competitive ETC support to the CAF, including our reformed system for supporting mobile service over a five-year period beginning July 1, 2012. We find that a transition is desirable in order to avoid shocks to service providers that may result in service disruptions for consumers. During this period, competitive ETCs offering mobile wireless services will have the opportunity to bid in the Mobility Fund Phase I auction in 2012 and participate in the second phase of the Mobility Fund in 2013. Competitive ETCs offering broadband services that meet the performance standards described above will also have the opportunity to participate in competitive bidding for CAF support in areas where price cap companies decline to make a state-level broadband commitment in exchange for model-determined support in 2013. With these new funding opportunities, many carriers, including wireless carriers, could receive similar or even greater amounts of funding after our reforms than before, albeit with that funding more appropriately targeted to the areas that need additional support.¹⁴

17. For the purpose of this transition, we conclude that each competitive ETC's baseline support amount will be equal to its total 2011 support in a given study area, or an amount equal to \$3,000 times the number of reported lines as of year-end 2011, whichever is lower. Using a full calendar year of support to set the baseline will provide a reasonable approximation of the amount that competitive ETCs would currently expect to receive, absent reform, and a natural starting point for the phase-down of support. In addition, we limit the baseline to \$3,000 per line in order to reflect similar changes to our rules limiting support for incumbent wireline carriers to \$3,000 per line per year.¹⁵

18. Competitive ETC support per study area will be frozen at the 2011 baseline, and that monthly baseline amount will be provided from January 1, 2012 to June 30, 2012. Each competitive ETC will then receive 80 percent of its monthly baseline amount from July 1, 2012 to June 30, 2013, 60 percent of its baseline amount from July 1, 2013, to June 30, 2014, 40 percent from July 1, 2014, to June 30, 2015, 20 percent from July 1, 2015, to June 30, 2016, and no support beginning July 1, 2016. The purpose of this phase down is to avoid unnecessary consumer disruption as we transition to new programs that will

¹² *See id.*

¹³ *See Supra* Section VII.E.4.

¹⁴ *See Supra* Section VII.E.5.

¹⁵ *Id.*

be better designed to achieve universal service goals, especially with respect to promoting investment in and deployment of mobile service to areas not yet served. We do not wish to encourage further investment based on the inefficient subsidy levels generated by the identical support rule. We conclude that phasing down and transitioning existing competitive support will not create significant or widespread risks that consumers in areas that currently have service, including mobile service, will be left without any viable mobile service provider serving their area. We do, however, delay by two years the phasedown for certain carriers serving remote parts of Alaska and a Tribally-owned competitive ETC, Standing Rock Telecommunications, that received its ETC designation in 2011.¹⁶

19. We establish the Mobility Fund based on our conclusion that mobile voice and broadband services provide unique consumer benefits and that promoting the universal availability of advanced mobile services is a vital component of the Commission's universal service mission. The Mobility Fund, which will have two phases, will allow funding for mobility while rationalizing how universal service funding is provided, thereby ensuring that funds are cost-effective and targeted to areas that require public funding to receive the benefits of mobility.¹⁷ The purpose of the Mobility Fund is to accelerate the deployment of advanced mobile networks in areas where a private-sector business case is lacking. Mobility Fund recipients will be subject to public interest obligations, including data roaming and collocation requirements.

20. The first phase of the Mobility Fund will provide \$300 million in one-time support to immediately accelerate deployment of networks for mobile broadband services in unserved areas. Mobility Fund Phase I support will be awarded through a nationwide reverse auction. Eligible areas will include census blocks unserved today by advanced mobile wireless services. Carriers will be prohibited from receiving support for areas they have previously stated they plan to cover. The auction will maximize coverage of unserved road miles, with the lowest per-unit bids winning. A 25 percent bidding credit will be available for Tribally-owned or controlled providers that participate in the auction and place bids for the eligible census blocks located within the geographic area defined by the boundaries of the Tribal land associated with the Tribal entity seeking support. The auction will also help the Commission develop expertise in running reverse auctions for universal service support. We expect to distribute this support as quickly as feasible, with the goal of holding an auction in the third quarter of 2012. As part of this first phase, we also establish a separate and complementary one-time Tribal Mobility Fund Phase I to award \$50 million in additional universal service funding for advanced mobile services on Tribal lands and Alaska Native regions.¹⁸ We do so in order to accelerate mobile broadband availability in these remote and underserved areas.

21. We also establish a Mobility Fund Phase II, which will provide up to \$500 million per year in ongoing support to ensure universal availability of advanced mobile services.¹⁹ The Fund will expand and sustain mobile voice and broadband service in communities in which service would be unavailable absent federal support. The Mobility Fund Phase II will include ongoing support for Tribal lands of up to \$100 million per year, as part of the \$500 million total budget. We also establish a budget of at least \$100 million annually for CAF support in remote areas. This reflects our commitment to ensuring that Americans living in the most remote areas of the nation, where the cost of deploying wireline or cellular terrestrial broadband technologies is extremely high, can obtain affordable broadband through alternative technology platforms such as satellite and unlicensed wireless. By setting aside

¹⁶ *Id.*

¹⁷ *See supra* Section VII.E.

¹⁸ *See id.*

¹⁹ *See id.*

designated funding for these difficult-to-serve areas, we can ensure that those who live and work in remote locations also have access to affordable broadband service.²⁰

22. In the Order, we also take steps to comprehensively reform the intercarrier compensation system to bring substantial benefits to consumers, including reduced rates for all wireless and long distance customers, more innovative communications offerings, and improved quality of service for wireless consumers and consumers of long distance services. The existing intercarrier compensation system—built on geographic and per-minute charges and implicit subsidies—is fundamentally in tension with and a deterrent to deployment of all-IP networks. And the system is eroding rapidly as demand for traditional telephone service falls, with consumers increasingly opting for wireless, VoIP, texting, email, and other phone alternatives. To address these issues, we take immediate action to combat two of the most prevalent arbitrage activities today, phantom traffic and access stimulation. We also launch long-term intercarrier compensation reform by adopting bill-and-keep as the ultimate uniform, national methodology for all telecommunications traffic exchanged with a local exchange carrier (LEC). We begin the transition to bill-and-keep with terminating switched access rates, which are the main source of arbitrage today. We also begin the process of reforming originating access and other rate elements by capping all interstate rates and most intrastate rates. We provide for a measured, gradual transition to bill-and-keep for these rates, and adopt a recovery mechanism that provides carriers with certain and predictable revenue streams. We make clear the prospective payment obligations for VoIP traffic and adopt a transitional intercarrier compensation framework for VoIP. And finally, we clarify certain aspects of CMRS-LEC compensation to reduce disputes and eliminate ambiguities in our rules.

23. We first adopt revisions to our interstate switched access charge rules to address access stimulation.²¹ Access stimulation occurs when a LEC with high switched access rates enters into an arrangement with a provider of high call volume operations such as chat lines, adult entertainment calls, and “free” conference calls. Consistent with the approach proposed in the *USF/ICC Transformation NPRM*, we adopt a definition of access stimulation which has two conditions: (1) a revenue sharing condition, revised slightly from the proposal in the *USF/ICC Transformation NPRM*; and (2) an additional traffic volume condition, which is met where the LEC either: (a) has a three-to-one interstate terminating-to-originating traffic ratio in a calendar month; or (b) has had more than a 100 percent growth in interstate originating and/or terminating switched access minutes of use in a month compared to the same month in the preceding year. If both conditions are satisfied, the LEC generally must file revised tariffs to account for its increased traffic and will be required to reduce its interstate switched access tariffed rates to the rates of the price cap LEC in the state with the lowest rates, which are presumptively consistent with the Act. The new access stimulation rules will facilitate enforcement when a LEC does not refile as required.

24. Next, we amend the Commission’s rules to address “phantom traffic” by ensuring that terminating service providers receive sufficient information to bill for telecommunications traffic sent to their networks, including interconnected VoIP traffic.²² “Phantom traffic” refers to traffic that terminating networks receive that lacks certain identifying information. Collectively, problems involving unidentifiable or misidentified traffic appear to be widespread and this sort of gamesmanship distorts the intercarrier compensation system. To address the problem, we adopt the core of the proposal contained in the *USF/ICC Transformation NPRM* – we modify our call signaling rules to require originating service providers to provide signaling information that includes calling party number (“CPN”) for all voice traffic, regardless of jurisdiction, and to prohibit interconnecting carriers from stripping or altering that

²⁰ See *supra* Section VII.F.

²¹ See *supra* Section XI.A.

²² See *supra* Section XI.B.

call signaling information. Service providers that originate interstate or intrastate traffic on the PSTN, or that originate inter- or intrastate interconnected VoIP traffic destined for the PSTN, will now be required to transmit the telephone number associated with the calling party to the next provider in the call path. Intermediate providers must pass calling party number or charge number signaling information they receive from other providers unaltered, to subsequent providers in the call path.

25. We adopt bill-and-keep as the methodology for all intercarrier compensation traffic, consistent with the National Broadband Plan's recommendation to phase out per-minute intercarrier compensation rates.²³ Under bill-and-keep arrangements, a carrier generally looks to its end-users—who are the entities making the choice to subscribe to the carrier's network—rather than looking to other carriers and their customers to recover its costs. We have legal authority to adopt a bill-and-keep methodology as the end point for reform pursuant to our rulemaking authority to implement sections 251(b)(5) and 252(d)(2), in addition to authority under other provisions of the Act, including sections 201 and 332.²⁴

26. We conclude that a uniform, national framework for the transition of intercarrier compensation to bill-and-keep, with an accompanying federal recovery mechanism, best advances our policy goals of accelerating the migration to all IP networks, facilitating IP-to-IP interconnection, and promoting deployment of new broadband networks by providing certainty and predictability to carriers and investors.²⁵ We adopt a gradual transition for terminating access, providing price cap carriers six years and rate-of-return carriers nine years to reach the end state.²⁶ We believe that initially focusing the bill-and-keep transition on terminating access rates will allow a more manageable process and will focus reform where some of the most pressing problems, such as access charge arbitrage, currently arise. The transition we adopt sets a default framework, leaving carriers free to enter into negotiated agreements that allow for different terms.

27. We conclude it is appropriate to clarify certain aspects of the obligations the Commission adopted in the 2005 *T-Mobile Order*, especially as parties have asked the Commission to make clear when they have the ability to require other carriers to negotiate to reach an interconnection agreement.²⁷ We reaffirm the findings in the *T-Mobile Order* that incumbent LECs can compel CMRS providers to negotiate in good faith to reach an interconnection agreement, and make clear we have authority to do so pursuant to Sections 332, 201, 251 as well as our ancillary authority under 4(i). We also clarify that this requirement does not impose any section 251(c) obligations on CMRS providers, nor does it extend section 252 of the Act to CMRS providers. We decline, at this time, to extend the obligation to negotiate in good faith and the ability to compel arbitration to other contexts.

28. As part of our comprehensive reforms, we adopt a recovery mechanism to facilitate incumbent LECs' gradual transition away from existing intercarrier revenues.²⁸ This mechanism allows the LECs to recover ICC revenues reduced due to our reforms, up to a defined baseline, from alternate revenue sources: reasonable, incremental increases in end user rates and, where appropriate, through ICC CAF support. The recovery mechanism is limited in time and carefully balances the benefits of certainty and a gradual transition with the need to contain the size of the federal universal service fund and

²³ See *supra* Section XII.A.

²⁴ See *supra* Section XII.A.2.

²⁵ See *supra* Sections XII-XIII.

²⁶ See *supra* Section XII.C.

²⁷ See *supra* Section XII.C.

²⁸ See *supra* Section XIII.

minimize the overall burden on end users. The recovery mechanism is not 100 percent revenue neutral relative to today's revenues, but it eliminates much of the uncertainty carriers face under the existing ICC system, allowing them to make investment decisions based on a full understanding of their revenues from ICC for the next several years.

29. In setting the framework for recovery, we believe that carriers should first look to reasonable but limited recovery from their own end users, consistent with the principle of bill-and-keep and the model in the wireless industry, but take measures to ensure that rates remain affordable and reasonably comparable.²⁹ Our recovery mechanism has two basic components.³⁰ First, we define the revenue incumbent LECs are eligible to recover, which we refer to as "Eligible Recovery." Second, we specify how incumbent LECs may recover Eligible Recovery through end-user charges and CAF support. Although we limit a specific recovery mechanism to incumbent LECs, competitive LECs are free to recover their reduced revenues through end user charges.

30. Consistent with past ICC reforms, we permit carriers to recover a reasonable, limited portion of their Eligible Recovery from their end users through a monthly fixed charge called an Access Recovery Charge (ARC).³¹ We take measures to help ensure that any ARC increase on consumers does not impact affordability of rates and the annual increase is limited to \$0.50 per month. To protect consumers, and to recognize states that have already rebalanced rates in prior state intercarrier compensation reforms, we adopt a \$30 Residential Rate Ceiling to ensure that consumers paying \$30 or more do not see any increases through ARCs as a result of our current reform. We also take measures to ensure that multi-line businesses' total subscriber line charge (SLC) plus ARC line items are just and reasonable, we do not permit LECs to charge a multi-line business ARC where the SLC plus ARC would exceed \$12.20 per line. Although we limit a specific recovery mechanism to incumbent LECs, competitive LECs are free to recover their reduced revenues through end user charges.

31. The Commission has recognized that some areas are uneconomic to serve absent implicit or explicit support. As we continue the transition from implicit to explicit support that the Commission began in 1997, recovery from the CAF for incumbent LECs will be available to the extent their Eligible Recovery exceeds their permitted ARCs. For price cap carriers that elect to receive CAF support, such support is transitional and phases out over three years, beginning in 2017. For rate-of-return carriers, ICC-replacement CAF support will phase down with Eligible Recovery over time. All incumbent LECs that elect to receive CAF support as part of this recovery mechanism will have broadband obligations and be held to the same accountability and oversight requirements adopted in section VI. Competitive LECs, which have greater freedom in setting rates and picking which customers to serve, will not be eligible for CAF support to replace reductions in ICC revenues.

32. We establish a rebuttable presumption that the reforms adopted in this Order, including the recovery of Eligible Recovery from the ARC and CAF, allow incumbent LECs to earn a reasonable return on their investment.³² We establish a "Total Cost and Earnings Review," through which a carrier may petition the Commission to rebut this presumption and request additional support. We identify certain factors in addition to switched access costs and revenues that *may* affect our analysis of requests for additional support, including: (1) other revenues derived from regulated services provided over the

²⁹ See *supra* Section XIII.

³⁰ See *supra* Section XIII.

³¹ See *supra* Section XIII.

³² See *supra* Section XIII.

local network, such as special access; (2) productivity gains; (3) incumbent LEC ICC expense reductions and other cost savings, and (4) other services provided over the local network.

33. Under the new intercarrier compensation regime, all traffic—including VoIP traffic—ultimately will be subject to a bill-and-keep framework.³³ As part of our transition to that end point, we adopt a prospective intercarrier compensation framework for VoIP traffic. In particular, we address the prospective treatment of VoIP-PSTN traffic by adopting a transitional compensation framework for such traffic proposed by commenters in the record. Under this transitional framework: we bring all VoIP-PSTN traffic within the section 251(b)(5) framework; default intercarrier compensation rates for toll VoIP-PSTN traffic are equal to interstate access rates; default intercarrier compensation rates for other VoIP-PSTN traffic are the otherwise-applicable reciprocal compensation rates; and carriers may tariff these default charges for toll VoIP-PSTN traffic in the absence of an agreement for different intercarrier compensation.³⁴ We also make clear providers' ability to use existing section 251(c)(2) interconnection arrangements to exchange VoIP-PSTN traffic pursuant to compensation addressed in the providers' interconnection agreement, and address the application of Commission policies regarding call blocking in this context.³⁵

34. To adopt this prospective regime we rely on our general authority to specify a transition to bill-and-keep for section 251(b)(5) traffic.³⁶ As a result, tariffing of charges for toll VoIP-PSTN traffic can occur through both federal and state tariffs. We do recognize concerns regarding providers' ability to distinguish VoIP-PSTN traffic from other traffic, and, consistent with the recommendations of a number of commenters, we permit LECs to address this issue through their tariffs, much as they do with jurisdictional issues today.

35. As part of our comprehensive ICC reform, we also believe it is also appropriate for the Commission to clarify the system of intercarrier compensation applicable to non-access traffic exchanged between LECs and CMRS providers. Accordingly, we clarify that the compensation obligations under section 20.11 are coextensive with the reciprocal compensation requirements under section 251(b)(5).³⁷ Although we have adopted a glide path to a bill-and-keep methodology for access charges generally and for reciprocal compensation between two wireline carriers, we find that a different approach is warranted for non-access traffic between LECs and CMRS providers for several reasons. We find a greater need for immediate application of a bill-and-keep methodology in this context to address traffic stimulation. In addition, consistent with our overall reform approach, we adopt bill-and-keep as the default compensation for non-access traffic exchanged between LECs and CMRS providers. We adopt an additional measure to further ease the move to bill-and-keep LEC-CMRS traffic for rate-of-return carriers. Specifically, we limit rate-of-return carriers' responsibility for the costs of transport involving non-access traffic exchanged between CMRS providers and rural, rate-of-return regulated LECs. We find that these steps are consistent with our overall reform and will support our goal of modernizing and unifying the intercarrier compensation system.

36. We address certain pending issues and disputes regarding what is now commonly known as the intraMTA rule, which provides that traffic exchanged between a LEC and a CMRS provider that originates and terminates within the same Major Trading Area (MTA) is subject to reciprocal

³³ See *supra* Section XIV.

³⁴ See *supra* Section XIV.

³⁵ See *supra* Section XIV.

³⁶ See *supra* Section XIV.

³⁷ See *supra* Section XV.

compensation obligations rather than interstate or intrastate access charges.³⁸ We resolve two issues that have been raised before the Commission regarding the correct application of this rule to specific traffic patterns. First, we clarify that a call is considered to be originated by a CMRS provider for purposes of the intraMTA rule only if the calling party initiating the call has done so through a CMRS provider. Second, we affirm that all traffic routed to or from a CMRS provider that, at the beginning of a call, originates and terminates within the same MTA, is subject to reciprocal compensation, without exception. In addition to these clarifications, we also deny requests that the intraMTA rule be modified to encompass a geographic license area known as the regional economic area grouping (REAG).

37. Finally, recognizing that IP interconnection between providers is critical, we agree with the record that, as the industry transitions to all IP networks, carriers should begin planning for the transition to all-IP networks, and that such a transition will likely be appropriate before the completion of the intercarrier compensation phase down. Even while our FNPRM is pending, we expect all carriers to negotiate in good faith in response to requests for IP-to-IP interconnection for the exchange of voice traffic. The duty to negotiate in good faith has been a longstanding element of interconnection requirements under the Communications Act and does not depend upon the network technology underlying the interconnection, whether TDM, IP, or otherwise.³⁹

B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA

38. No comments were filed in response to the *Mobility Fund NPRM* IRFA. In response to the *USF/ICC Transformation NPRM* IRFA, four parties filed comments that specifically address the IRFA with respect to proposed universal service reform. Valley Telephone Cooperative, Cascade Utilities, Molalla Communications and Pine Telephone System filed identical but separate comments contending that, since the Commission's universal service proposals will cause significant financial difficulties for many small companies operating in rural America, the Commission's IRFA contained in the *Notice* is inadequate.⁴⁰ These commenters state that the Commission needs to do a full analysis of the effect that the proposals will have on small companies serving rural areas.⁴¹ In making the determinations reflected in the Order, we have considered the impact of our actions on small entities.

39. In comments filed in response to the IRFA, concerns were also raised regarding the adequacy of the IRFA with respect to proposed intercarrier compensation reforms. Bluegrass Telephone Company stated that the IRFA was insufficiently specific regarding the proposed access stimulation rules, and that the Commission should decline to act on the proposed access stimulation rules until the Commission releases a more detailed analysis of the rules.⁴² Likewise, Furchtgott-Roth Economic Enterprises also states that the IRFA was insufficiently specific regarding the proposed rule for revenue sharing and access charges.⁴³ We disagree: we believe that the IRFA was adequate and that the

³⁸ See *supra* Section XV.

³⁹ See *supra* Section XVI.

⁴⁰ See Letter from Brenda Crosby, President, Cascade Utilities, Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 10-90, et al., at 3 (filed April 6, 2011); Comments of Molalla Telephone Company at 3 (filed April 18, 2011); Letter from John Hemphill, Vice President, Pine Telephone System, Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 10-90, et al., at 3 (filed March 30, 2011); Letter from Dave Osborn, Valley Telephone Cooperative, Inc. to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 10-90, et al., at 3 (filed August 29, 2011).

⁴¹ *Id.*

⁴² Bluegrass Telephone Company *USF/ICC Transformation NPRM* Comments at 35-36.

⁴³ Furchtgott-Roth Economic Enterprises *USF/ICC Transformation NPRM* Comments at 14.

opportunity for parties, including small business enterprises to comment in a publicly accessible docket on the proposed rule revisions and other proposals contained in the *USF/ICC Transformation NPRM* was sufficient. The IRFA described that the *USF/ICC Transformation NPRM* sought comment on amendments to the Commission's rules to address access stimulation as well as a range of outcomes for access charge reform.⁴⁴ The IRFA further identified carriers, including small entities as possibly being subject to these reforms,⁴⁵ including projected reporting or other compliance-related requirements.⁴⁶

C. Description and Estimate of the Number of Small Entities to which the Proposed Rules Will Apply

40. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.⁴⁷ The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."⁴⁸ In addition, the term "small business" has the same meaning as the term "small-business concern" under the Small Business Act.⁴⁹ A small-business concern" is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.⁵⁰

41. **Small Businesses.** Nationwide, there are a total of approximately 27.5 million small businesses, according to the SBA.⁵¹

42. **Wired Telecommunications Carriers.** The SBA has developed a small business size standard for Wired Telecommunications Carriers, which consists of all such companies having 1,500 or fewer employees.⁵² According to Census Bureau data for 2007, there were 3,188 firms in this category, total, that operated for the entire year.⁵³ Of this total, 3144 firms had employment of 999 or fewer employees, and 44 firms had employment of 1000 employees or more.⁵⁴ Thus, under this size standard, the majority of firms can be considered small.

43. **Local Exchange Carriers (LECs).** Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to local exchange services. The closest

⁴⁴ *USF/ICC Transformation NPRM*, 26 FCC Rcd at 4803.

⁴⁵ *See id.* at 4803-4825.

⁴⁶ *See id.* at

⁴⁷ *See* 5 U.S.C. § 603(b)(3).

⁴⁸ *See* 5 U.S.C. § 601(6).

⁴⁹ *See* 5 U.S.C. § 601(3) (incorporating by reference the definition of "small-business concern" in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."

⁵⁰ *See* 15 U.S.C. § 632.

⁵¹ *See* SBA, Office of Advocacy, "Frequently Asked Questions," <http://www.sba.gov/advo/stats/sbfaq.pdf> (accessed Dec. 2010).

⁵² 13 C.F.R. § 121.201, NAICS code 517110.

⁵³ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, Table 5, "Establishment and Firm Size: Employment Size of Firms for the United States: 2007 NAICS Code 517110" (issued Nov. 2010).

⁵⁴ *See id.*

applicable size standard under SBA rules is for Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁵⁵ According to Commission data, 1,307 carriers reported that they were incumbent local exchange service providers.⁵⁶ Of these 1,307 carriers, an estimated 1,006 have 1,500 or fewer employees and 301 have more than 1,500 employees.⁵⁷ Consequently, the Commission estimates that most providers of local exchange service are small entities that may be affected by the rules and policies proposed in the Order.

44. **Incumbent Local Exchange Carriers (incumbent LECs).** Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to incumbent local exchange services. The closest applicable size standard under SBA rules is for Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁵⁸ According to Commission data, 1,307 carriers reported that they were incumbent local exchange service providers.⁵⁹ Of these 1,307 carriers, an estimated 1,006 have 1,500 or fewer employees and 301 have more than 1,500 employees.⁶⁰ Consequently, the Commission estimates that most providers of incumbent local exchange service are small businesses that may be affected by rules adopted pursuant to the Order

45. We have included small incumbent LECs in this present RFA analysis. As noted above, a “small business” under the RFA is one that, *inter alia*, meets the pertinent small business size standard (e.g., a telephone communications business having 1,500 or fewer employees), and “is not dominant in its field of operation.”⁶¹ The SBA’s Office of Advocacy contends that, for RFA purposes, small incumbent LECs are not dominant in their field of operation because any such dominance is not “national” in scope.⁶² We have therefore included small incumbent LECs in this RFA analysis, although we emphasize that this RFA action has no effect on Commission analyses and determinations in other, non-RFA contexts.

46. **Competitive Local Exchange Carriers (competitive LECs), Competitive Access Providers (CAPs), Shared-Tenant Service Providers, and Other Local Service Providers.** Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁶³ According to Commission data, 1,442 carriers reported that they were engaged in the provision of either

⁵⁵ 13 C.F.R. § 121.201, NAICS code 517110.

⁵⁶ See *Trends in Telephone Service*, Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division at Table 5.3 (Sept. 2010) (*Trends in Telephone Service*).

⁵⁷ See *id.*

⁵⁸ See 13 C.F.R. § 121.201, NAICS code 517110.

⁵⁹ See *Trends in Telephone Service* at Table 5.3.

⁶⁰ See *id.*

⁶¹ 5 U.S.C. § 601(3).

⁶² See Letter from Jere W. Glover, Chief Counsel for Advocacy, SBA, to William E. Kennard, Chairman, FCC (May 27, 1999). The Small Business Act contains a definition of “small business concern,” which the RFA incorporates into its own definition of “small business.” See 15 U.S.C. § 632(a); see also 5 U.S.C. § 601(3). SBA regulations interpret “small business concern” to include the concept of dominance on a national basis. See 13 C.F.R. § 121.102(b).

⁶³ See 13 C.F.R. § 121.201, NAICS code 517110.

competitive local exchange services or competitive access provider services.⁶⁴ Of these 1,442 carriers, an estimated 1,256 have 1,500 or fewer employees and 186 have more than 1,500 employees.⁶⁵ In addition, 17 carriers have reported that they are Shared-Tenant Service Providers, and all 17 are estimated to have 1,500 or fewer employees.⁶⁶ In addition, 72 carriers have reported that they are Other Local Service Providers.⁶⁷ Of the 72, seventy have 1,500 or fewer employees and two have more than 1,500 employees.⁶⁸ Consequently, the Commission estimates that most providers of competitive local exchange service, competitive access providers, Shared-Tenant Service Providers, and Other Local Service Providers are small entities that may be affected by rules adopted pursuant to the Order.

47. **Interexchange Carriers (IXCs).** Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to interexchange services. The closest applicable size standard under SBA rules is for Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁶⁹ According to Commission data, 359 companies reported that their primary telecommunications service activity was the provision of interexchange services.⁷⁰ Of these 359 companies, an estimated 317 have 1,500 or fewer employees and 42 have more than 1,500 employees.⁷¹ Consequently, the Commission estimates that the majority of interexchange service providers are small entities that may be affected by rules adopted pursuant to the Order.

48. **Prepaid Calling Card Providers.** Neither the Commission nor the SBA has developed a small business size standard specifically for prepaid calling card providers. The appropriate size standard under SBA rules is for the category Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁷² According to Commission data, 193 carriers have reported that they are engaged in the provision of prepaid calling cards.⁷³ Of these, an estimated all 193 have 1,500 or fewer employees and none have more than 1,500 employees.⁷⁴ Consequently, the Commission estimates that the majority of prepaid calling card providers are small entities that may be affected by rules adopted pursuant to the Order.

49. **Local Resellers.** The SBA has developed a small business size standard for the category of Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁷⁵ According to Commission data, 213 carriers have reported that they are engaged in the provision of local resale services.⁷⁶ Of these, an estimated 211 have 1,500 or fewer employees and

⁶⁴ See *Trends in Telephone Service* at Table 5.3.

⁶⁵ See *id.*

⁶⁶ See *id.*

⁶⁷ See *id.*

⁶⁸ See *id.*

⁶⁹ See 13 C.F.R. § 121.201, NAICS code 517110.

⁷⁰ See *Trends in Telephone Service* at Table 5.3.

⁷¹ See *id.*

⁷² See 13 C.F.R. § 121.201, NAICS code 517911.

⁷³ See *Trends in Telephone Service* at Table 5.3.

⁷⁴ See *id.*

⁷⁵ See 13 C.F.R. § 121.201, NAICS code 517911.

⁷⁶ See *Trends in Telephone Service* at Table 5.3.

two have more than 1,500 employees.⁷⁷ Consequently, the Commission estimates that the majority of local resellers are small entities that may be affected by rules adopted pursuant to the Order.

50. **Toll Resellers.** The SBA has developed a small business size standard for the category of Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁷⁸ According to Commission data, 881 carriers have reported that they are engaged in the provision of toll resale services.⁷⁹ Of these, an estimated 857 have 1,500 or fewer employees and 24 have more than 1,500 employees.⁸⁰ Consequently, the Commission estimates that the majority of toll resellers are small entities that may be affected by rules adopted pursuant to the Order.

51. **Other Toll Carriers.** Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to Other Toll Carriers. This category includes toll carriers that do not fall within the categories of interexchange carriers, operator service providers, prepaid calling card providers, satellite service carriers, or toll resellers. The closest applicable size standard under SBA rules is for Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁸¹ According to Commission data, 284 companies reported that their primary telecommunications service activity was the provision of other toll carriage.⁸² Of these, an estimated 279 have 1,500 or fewer employees and five have more than 1,500 employees.⁸³ Consequently, the Commission estimates that most Other Toll Carriers are small entities that may be affected by the rules and policies adopted pursuant to the Order.

52. **800 and 800-Like Service Subscribers.**⁸⁴ Neither the Commission nor the SBA has developed a small business size standard specifically for 800 and 800-like service (toll free) subscribers. The appropriate size standard under SBA rules is for the category Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁸⁵ The most reliable source of information regarding the number of these service subscribers appears to be data the Commission collects on the 800, 888, 877, and 866 numbers in use.⁸⁶ According to our data, as of September 2009, the number of 800 numbers assigned was 7,860,000; the number of 888 numbers assigned was 5,588,687; the number of 877 numbers assigned was 4,721,866; and the number of 866 numbers assigned was 7,867,736.⁸⁷ We do not have data specifying the number of these subscribers that are not independently owned and operated or have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of toll free subscribers that would qualify as small businesses under the SBA size standard. Consequently, we estimate that there are 7,860,000 or fewer small entity 800 subscribers;

⁷⁷ *See id.*

⁷⁸ *See* 13 C.F.R. § 121.201, NAICS code 517911.

⁷⁹ *See Trends in Telephone Service* at Table 5.3.

⁸⁰ *See id.*

⁸¹ *See* 13 C.F.R. § 121.201, NAICS code 517110.

⁸² *See Trends in Telephone Service* at Table 5.3.

⁸³ *See id.*

⁸⁴ We include all toll-free number subscribers in this category, including those for 888 numbers.

⁸⁵ *See* 13 C.F.R. § 121.201, NAICS code 517911.

⁸⁶ *See Trends in Telephone Service* at Tables 18.7-18.10.

⁸⁷ *See id.*

5,588,687 or fewer small entity 888 subscribers; 4,721,866 or fewer small entity 877 subscribers; and 7,867,736 or fewer small entity 866 subscribers.

53. **Wireless Telecommunications Carriers (except Satellite).** Since 2007, the SBA has recognized wireless firms within this new, broad, economic census category.⁸⁸ Prior to that time, such firms were within the now-superseded categories of Paging and Cellular and Other Wireless Telecommunications.⁸⁹ Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees.⁹⁰ For this category, census data for 2007 show that there were 1,383 firms that operated for the entire year.⁹¹ Of this total, 1,368 firms had employment of 999 or fewer employees and 15 had employment of 1000 employees or more.⁹² Similarly, according to Commission data, 413 carriers reported that they were engaged in the provision of wireless telephony, including cellular service, Personal Communications Service (PCS), and Specialized Mobile Radio (SMR) Telephony services.⁹³ Of these, an estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees.⁹⁴ Consequently, the Commission estimates that approximately half or more of these firms can be considered small. Thus, using available data, we estimate that the majority of wireless firms can be considered small.

54. **Broadband Personal Communications Service.** The broadband personal communications service (PCS) spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission defined “small entity” for Blocks C and F as an entity that has average gross revenues of \$40 million or less in the three previous calendar years.⁹⁵ For Block F, an additional classification for “very small business” was added and is defined as an entity that, together with its affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years.⁹⁶ These standards defining “small entity” in the context of broadband PCS auctions have been approved by the SBA.⁹⁷ No small businesses, within the SBA-approved small business size standards bid successfully for licenses in Blocks A and B. There were 90

⁸⁸ See 13 C.F.R. § 121.201, NAICS code 517210.

⁸⁹ U.S. Census Bureau, 2002 NAICS Definitions, “517211 Paging”; <http://www.census.gov/epcd/naics02/def/NDEF517.HTM>; U.S. Census Bureau, 2002 NAICS Definitions, “517212 Cellular and Other Wireless Telecommunications”; <http://www.census.gov/epcd/naics02/def/NDEF517.HTM>.

⁹⁰ 13 C.F.R. § 121.201, NAICS code 517210. The now-superseded, pre-2007 C.F.R. citations were 13 C.F.R. § 121.201, NAICS codes 517211 and 517212 (referring to the 2002 NAICS).

⁹¹ U.S. Census Bureau, Subject Series: Information, Table 5, “Establishment and Firm Size: Employment Size of Firms for the United States: 2007 NAICS Code 517210” (issued Nov. 2010).

⁹² *Id.* Available census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with “100 employees or more.”

⁹³ See *Trends in Telephone Service* at Table 5.3.

⁹⁴ See *id.*

⁹⁵ See generally *Amendment of Parts 20 and 24 of the Commission’s Rules – Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap*, WT Docket No. 96-59, GN Docket No. 90-314, Report and Order, 11 FCC Rcd 7824 (1996); see also 47 C.F.R. § 24.720(b)(1).

⁹⁶ See generally *Amendment of Parts 20 and 24 of the Commission’s Rules – Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap*, WT Docket No. 96-59, GN Docket No. 90-314, Report and Order, 11 FCC Rcd 7824 (1996); see also 47 C.F.R. § 24.720(b)(2).

⁹⁷ See, e.g., *Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, PP Docket No. 93-253, Fifth Report and Order, 9 FCC Rcd 5532 (1994).

winning bidders that qualified as small entities in the Block C auctions. A total of 93 small and very small business bidders won approximately 40 percent of the 1,479 licenses for Blocks D, E, and F.⁹⁸ In 1999, the Commission re-auctioned 347 C, E, and F Block licenses.⁹⁹ There were 48 small business winning bidders. In 2001, the Commission completed the auction of 422 C and F Broadband PCS licenses in Auction 35.¹⁰⁰ Of the 35 winning bidders in this auction, 29 qualified as “small” or “very small” businesses. Subsequent events, concerning Auction 35, including judicial and agency determinations, resulted in a total of 163 C and F Block licenses being available for grant. In 2005, the Commission completed an auction of 188 C block licenses and 21 F block licenses in Auction 58. There were 24 winning bidders for 217 licenses.¹⁰¹ Of the 24 winning bidders, 16 claimed small business status and won 156 licenses. In 2007, the Commission completed an auction of 33 licenses in the A, C, and F Blocks in Auction 71.¹⁰² Of the 14 winning bidders, six were designated entities.¹⁰³ In 2008, the Commission completed an auction of 20 Broadband PCS licenses in the C, D, E and F block licenses in Auction 78.¹⁰⁴

55. **Advanced Wireless Services.** In 2008, the Commission conducted the auction of Advanced Wireless Services (“AWS”) licenses.¹⁰⁵ This auction, which as designated as Auction 78, offered 35 licenses in the AWS 1710-1755 MHz and 2110-2155 MHz bands (“AWS-1”). The AWS-1 licenses were licenses for which there were no winning bids in Auction 66. That same year, the Commission completed Auction 78. A bidder with attributed average annual gross revenues that exceeded \$15 million and did not exceed \$40 million for the preceding three years (“small business”) received a 15 percent discount on its winning bid. A bidder with attributed average annual gross revenues that did not exceed \$15 million for the preceding three years (“very small business”) received a 25 percent discount on its winning bid. A bidder that had combined total assets of less than \$500 million and combined gross revenues of less than \$125 million in each of the last two years qualified for entrepreneur status.¹⁰⁶ Four winning bidders that identified themselves as very small businesses won 17

⁹⁸ See FCC News, Broadband PCS, D, E and F Block Auction Closes, No. 71744 (rel. Jan. 14, 1997). See also *Amendment of the Commission’s Rules Regarding Installment Payment Financing for Personal Communications Services (PCS) Licensees*, WT Docket No. 97-82, Second Report and Order and Further Notice of Proposed Rulemaking, 12 FCC Rcd 16436 (1997).

⁹⁹ See “C, D, E, and F Block Broadband PCS Auction Closes” *Public Notice*, 14 FCC Rcd 6688 (WTB 1999).

¹⁰⁰ See “C and F Block Broadband PCS Auction Closes; Winning Bidders Announced,” *Public Notice*, 16 FCC Rcd 2339 (2001).

¹⁰¹ See “Broadband PCS Spectrum Auction Closes; Winning Bidders Announced for Auction No. 58,” *Public Notice*, 20 FCC Rcd 3703 (2005).

¹⁰² See “Auction of Broadband PCS Spectrum Licenses Closes; Winning Bidders Announced for Auction No. 71,” *Public Notice*, 22 FCC Rcd 9247 (2007).

¹⁰³ *Id.*

¹⁰⁴ See “Auction of AWS-1 and Broadband PCS Licenses Rescheduled For August 13, 3008, Notice of Filing Requirements, Minimum Opening Bids, Upfront Payments and Other Procedures For Auction 78,” *Public Notice*, 23 FCC Rcd 7496 (2008) (*AWS-1 and Broadband PCS Procedures Public Notice*).

¹⁰⁵ See *AWS-1 and Broadband PCS Procedures Public Notice*, 23 FCC Rcd 7496. Auction 78 also included an auction of Broadband PCS licenses.

¹⁰⁶ *Id.* at 7521-22.

licenses.¹⁰⁷ Three of the winning bidders that identified themselves as a small business won five licenses. Additionally, one other winning bidder that qualified for entrepreneur status won 2 licenses.

56. **Narrowband Personal Communications Services.** In 1994, the Commission conducted an auction for Narrowband PCS licenses. A second auction was also conducted later in 1994. For purposes of the first two Narrowband PCS auctions, “small businesses” were entities with average gross revenues for the prior three calendar years of \$40 million or less.¹⁰⁸ Through these auctions, the Commission awarded a total of 41 licenses, 11 of which were obtained by four small businesses.¹⁰⁹ To ensure meaningful participation by small business entities in future auctions, the Commission adopted a two-tiered small business size standard in the Narrowband PCS Second Report and Order.¹¹⁰ A “small business” is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than \$40 million.¹¹¹ A “very small business” is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than \$15 million.¹¹² The SBA has approved these small business size standards.¹¹³ A third auction was conducted in 2001. Here, five bidders won 317 (Metropolitan Trading Areas and nationwide) licenses.¹¹⁴ Three of these claimed status as a small or very small entity and won 311 licenses.

57. **Paging (Private and Common Carrier).** In the *Paging Third Report and Order*, we developed a small business size standard for “small businesses” and “very small businesses” for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.¹¹⁵ A “small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$15 million for the preceding three years. Additionally, a “very small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$3 million for the preceding three years. The SBA has approved these

¹⁰⁷ See “Auction of AWS-1 and Broadband PCS Licenses Closes, Winning Bidders Announced for Auction 78, Down Payments Due September 9, 2008, FCC Forms 601 and 602 Due September 9, 2008, Final Payments Due September 23, 2008, Ten-Day Petition to Deny Period,” *Public Notice*, 23 FCC Rcd 12749 (2008).

¹⁰⁸ *Implementation of Section 309(j) of the Communications Act – Competitive Bidding Narrowband PCS*, PP Docket No. 93-253, GEN Docket No. 90-314, ET Docket No. 92-100, Third Memorandum Opinion and Order and Further Notice of Proposed Rulemaking, 10 FCC Rcd 175, 196, para. 46 (1994).

¹⁰⁹ See *Announcing the High Bidders in the Auction of Ten Nationwide Narrowband PCS Licenses, Winning Bids Total \$617,006,674*, Public Notice, PNWL 94-004 (rel. Aug. 2, 1994); *Announcing the High Bidders in the Auction of 30 Regional Narrowband PCS Licenses; Winning Bids Total \$490,901,787*, Public Notice, PNWL 94-27 (rel. Nov. 9, 1994).

¹¹⁰ *Amendment of the Commission’s Rules to Establish New Personal Communications Services*, GEN Docket No. 90-314, ET Docket No. 92-100, PP Docket No. 93-253, Narrowband PCS, Second Report and Order and Second Further Notice of Proposed Rule Making, 15 FCC Rcd 10456, 10476, para. 40 (2000) (*Narrowband PCS Second Report and Order*).

¹¹¹ *Narrowband PCS Second Report and Order*, 15 FCC Rcd at 10476, para. 40.

¹¹² *Id.*

¹¹³ See Letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC, from A. Alvarez, Administrator, SBA (Dec. 2, 1998) (*Alvarez Letter 1998*).

¹¹⁴ See “Narrowband PCS Auction Closes,” *Public Notice*, 16 FCC Rcd 18663 (WTB 2001).

¹¹⁵ See *Revision of Part 22 and Part 90 of the Commission’s Rules to Facilitate Future Development of Paging Systems*, WT Docket No. 96-18, PR Docket No. 93-253, Memorandum Opinion and Order on Reconsideration and Third Report and Order, 14 FCC Rcd 10030, 10085–88, paras. 98–107 (1999) (*Paging Third Report and Order*).

small business size standards.¹¹⁶ According to Commission data, 291 carriers have reported that they are engaged in Paging or Messaging Service.¹¹⁷ Of these, an estimated 289 have 1,500 or fewer employees, and two have more than 1,500 employees.¹¹⁸ Consequently, the Commission estimates that the majority of paging providers are small entities that may be affected by our action. An auction of Metropolitan Economic Area licenses commenced on February 24, 2000, and closed on March 2, 2000. Of the 2,499 licenses auctioned, 985 were sold. Fifty-seven companies claiming small business status won 440 licenses.¹¹⁹ A subsequent auction of MEA and Economic Area (“EA”) licenses was held in the year 2001. Of the 15,514 licenses auctioned, 5,323 were sold.¹²⁰ One hundred thirty-two companies claiming small business status purchased 3,724 licenses. A third auction, consisting of 8,874 licenses in each of 175 EAs and 1,328 licenses in all but three of the 51 MEAs, was held in 2003. Seventy-seven bidders claiming small or very small business status won 2,093 licenses.¹²¹ A fourth auction, consisting of 9,603 lower and upper paging band licenses was held in the year 2010. Twenty-nine bidders claiming small or very small business status won 3,016 licenses.¹²²

58. **220 MHz Radio Service – Phase I Licensees.** The 220 MHz service has both Phase I and Phase II licenses. Phase I licensing was conducted by lotteries in 1992 and 1993. There are approximately 1,515 such non-nationwide licensees and four nationwide licensees currently authorized to operate in the 220 MHz band. The Commission has not developed a small business size standard for small entities specifically applicable to such incumbent 220 MHz Phase I licensees. To estimate the number of such licensees that are small businesses, we apply the small business size standard under the SBA rules applicable to Wireless Telecommunications Carriers (except Satellite). Under this category, the SBA deems a wireless business to be small if it has 1,500 or fewer employees.¹²³ The Commission estimates that nearly all such licensees are small businesses under the SBA’s small business size standard that may be affected by rules adopted pursuant to the Order.

59. **220 MHz Radio Service – Phase II Licensees.** The 220 MHz service has both Phase I and Phase II licenses. The Phase II 220 MHz service is subject to spectrum auctions. In the *220 MHz Third Report and Order*, we adopted a small business size standard for “small” and “very small” businesses for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.¹²⁴ This small business size standard indicates that a “small business” is an entity

¹¹⁶ See *Alvarez Letter 1998*.

¹¹⁷ See *Trends in Telephone Service* at Table 5.3.

¹¹⁸ See *id.*

¹¹⁹ See *id.*

¹²⁰ See “*Lower and Upper Paging Band Auction Closes*,” Public Notice, 16 FCC Rcd 21821 (WTB 2002).

¹²¹ See “*Lower and Upper Paging Bands Auction Closes*,” Public Notice, 18 FCC Rcd 11154 (WTB 2003). The current number of small or very small business entities that hold wireless licenses may differ significantly from the number of such entities that won in spectrum auctions due to assignments and transfers of licenses in the secondary market over time. In addition, some of the same small business entities may have won licenses in more than one auction.

¹²² See “*Auction of Lower and Upper Paging Bands Licenses Closes*,” Public Notice, 25 FCC Rcd 18,164 (WTB 2010).

¹²³ See 13 C.F.R. § 121.201, NAICS code 517210.

¹²⁴ See *Amendment of Part 90 of the Commission’s Rules to Provide for the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service*, PR Docket No. 89-552, GN Docket No. 93-252, PP Docket No. 93-253, Third Report and Order and Fifth Notice of Proposed Rulemaking, 12 FCC Rcd 10943, 11068–70, paras. 291–295 (1997) (*220 MHz Third Report and Order*).

that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$15 million for the preceding three years.¹²⁵ A “very small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues that do not exceed \$3 million for the preceding three years.¹²⁶ The SBA has approved these small business size standards.¹²⁷ Auctions of Phase II licenses commenced on September 15, 1998, and closed on October 22, 1998.¹²⁸ In the first auction, 908 licenses were auctioned in three different-sized geographic areas: three nationwide licenses, 30 Regional Economic Area Group (EAG) Licenses, and 875 Economic Area (EA) Licenses. Of the 908 licenses auctioned, 693 were sold. Thirty-nine small businesses won licenses in the first 220 MHz auction. The second auction included 225 licenses: 216 EA licenses and 9 EAG licenses. Fourteen companies claiming small business status won 158 licenses.¹²⁹

60. **Specialized Mobile Radio.** The Commission awards small business bidding credits in auctions for Specialized Mobile Radio (“SMR”) geographic area licenses in the 800 MHz and 900 MHz bands to entities that had revenues of no more than \$15 million in each of the three previous calendar years.¹³⁰ The Commission awards very small business bidding credits to entities that had revenues of no more than \$3 million in each of the three previous calendar years.¹³¹ The SBA has approved these small business size standards for the 800 MHz and 900 MHz SMR Services.¹³² The Commission has held auctions for geographic area licenses in the 800 MHz and 900 MHz bands. The 900 MHz SMR auction was completed in 1996.¹³³ Sixty bidders claiming that they qualified as small businesses under the \$15 million size standard won 263 geographic area licenses in the 900 MHz SMR band.¹³⁴ The 800 MHz SMR auction for the upper 200 channels was conducted in 1997. Ten bidders claiming that they qualified as small businesses under the \$15 million size standard won 38 geographic area licenses for the upper 200 channels in the 800 MHz SMR band.¹³⁵ A second auction for the 800 MHz band was conducted in 2002 and included 23 BEA licenses. One bidder claiming small business status won five licenses.¹³⁶

61. The auction of the 1,053 800 MHz SMR geographic area licenses for the General Category channels was conducted in 2000. Eleven bidders won 108 geographic area licenses for the General Category channels in the 800 MHz SMR band qualified as small businesses under the \$15

¹²⁵ See *id.* at 11068–69, para. 291.

¹²⁶ See *id.* at 11068–70, paras. 291–95.

¹²⁷ See Letter to D. Phythyon, Chief, Wireless Telecommunications Bureau, FCC, from Aida Alvarez, Administrator, SBA (Jan. 6, 1998) (*Alvarez to Phythyon Letter 1998*).

¹²⁸ See “Phase II 220 MHz Service Auction Closes,” *Public Notice*, 14 FCC Rcd 605 (1998).

¹²⁹ See “Phase II 220 MHz Service Spectrum Auction Closes,” *Public Notice*, 14 FCC Rcd 11218 (1999).

¹³⁰ 47 C.F.R. §§ 90.810, 90.814(b), 90.912.

¹³¹ 47 C.F.R. §§ 90.810, 90.814(b), 90.912.

¹³² See Letter from Aida Alvarez, Administrator, SBA, to Thomas Sugrue, Chief, Wireless Telecommunications Bureau, FCC (Aug. 10, 1999) (*Alvarez Letter 1999*).

¹³³ “FCC Announces Winning Bidders in the Auction of 1,020 Licenses to Provide 900 MHz SMR in Major Trading Areas: Down Payments due April 22, 1996, FCC Form 600s due April 29, 1996,” *Public Notice*, 11 FCC Rcd 18599 (WTB 1996).

¹³⁴ *Id.*

¹³⁵ See “Correction to Public Notice DA 96-586 ‘FCC Announces Winning Bidders in the Auction of 1020 Licenses to Provide 900 MHz SMR in Major Trading Areas,’” *Public Notice*, 11 FCC Rcd 18,637 (WTB 1996).

¹³⁶ See *Multi-Radio Service Auction Closes*, *Public Notice*, 17 FCC Rcd 1446 (WTB 2002).

million size standard.¹³⁷ In an auction completed in 2000, a total of 2,800 Economic Area licenses in the lower 80 channels of the 800 MHz SMR service were awarded.¹³⁸ Of the 22 winning bidders, 19 claimed small business status and won 129 licenses. Thus, combining all three auctions, 40 winning bidders for geographic licenses in the 800 MHz SMR band claimed status as small business.

62. In addition, there are numerous incumbent site-by-site SMR licensees and licensees with extended implementation authorizations in the 800 and 900 MHz bands. We do not know how many firms provide 800 MHz or 900 MHz geographic area SMR pursuant to extended implementation authorizations, nor how many of these providers have annual revenues of no more than \$15 million. One firm has over \$15 million in revenues. In addition, we do not know how many of these firms have 1,500 or fewer employees.¹³⁹ We assume, for purposes of this analysis, that all of the remaining existing extended implementation authorizations are held by small entities, as that small business size standard is approved by the SBA.

63. **Broadband Radio Service and Educational Broadband Service.** Broadband Radio Service systems, previously referred to as Multipoint Distribution Service (“MDS”) and Multichannel Multipoint Distribution Service (“MMDS”) systems, and “wireless cable,” transmit video programming to subscribers and provide two-way high speed data operations using the microwave frequencies of the Broadband Radio Service (“BRS”) and Educational Broadband Service (“EBS”) (previously referred to as the Instructional Television Fixed Service (“ITFS”).¹⁴⁰ In connection with the 1996 BRS auction, the Commission established a small business size standard as an entity that had annual average gross revenues of no more than \$40 million in the previous three calendar years.¹⁴¹ The BRS auctions resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas (“BTAs”). Of the 67 auction winners, 61 met the definition of a small business. BRS also includes licensees of stations authorized prior to the auction. At this time, we estimate that of the 61 small business BRS auction winners, 48 remain small business licensees. In addition to the 48 small businesses that hold BTA authorizations, there are approximately 392 incumbent BRS licensees that are considered small entities.¹⁴² After adding the number of small business auction licensees to the number of incumbent licensees not already counted, we find that there are currently approximately 440 BRS licensees that are defined as small businesses under either the SBA or the Commission’s rules. The Commission has adopted three levels of bidding credits for BRS: (i) a bidder with attributed average annual gross revenues that exceed \$15 million and do not exceed \$40 million for the preceding three years (small business) is eligible to receive a 15 percent discount on its winning bid; (ii) a bidder with attributed average annual gross revenues that exceed \$3 million and do not exceed \$15 million for the preceding three years (very small business) is eligible to receive a 25 percent discount on its winning bid; and (iii) a bidder with attributed

¹³⁷ See “800 MHz Specialized Mobile Radio (SMR) Service General Category (851-854 MHz) and Upper Band (861-865 MHz) Auction Closes; Winning Bidders Announced,” *Public Notice*, 15 FCC Rcd 17162 (WTB 2000).

¹³⁸ See “800 MHz SMR Service Lower 80 Channels Auction Closes; Winning Bidders Announced,” *Public Notice*, 16 FCC Rcd 1736 (WTB 2000).

¹³⁹ See generally 13 C.F.R. § 121.201, NAICS code 517210.

¹⁴⁰ *Amendment of Parts 21 and 74 of the Commission’s Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, MM Docket No. 94-131 and PP Docket No. 93-253, Report and Order, 10 FCC Rcd 9589, 9593 para. 7 (1995).

¹⁴¹ 47 C.F.R. § 21.961(b)(1).

¹⁴² 47 U.S.C. § 309(j). Hundreds of stations were licensed to incumbent MDS licensees prior to implementation of Section 309(j) of the Communications Act of 1934, 47 U.S.C. § 309(j). For these pre-auction licenses, the applicable standard is SBA’s small business size standard.

average annual gross revenues that do not exceed \$3 million for the preceding three years (entrepreneur) is eligible to receive a 35 percent discount on its winning bid.¹⁴³ In 2009, the Commission conducted Auction 86, which offered 78 BRS licenses.¹⁴⁴ Auction 86 concluded with ten bidders winning 61 licenses.¹⁴⁵ Of the ten, two bidders claimed small business status and won 4 licenses; one bidder claimed very small business status and won three licenses; and two bidders claimed entrepreneur status and won six licenses.

64. In addition, the SBA's Cable Television Distribution Services small business size standard is applicable to EBS. There are presently 2,032 EBS licensees. All but 100 of these licenses are held by educational institutions. Educational institutions are included in this analysis as small entities.¹⁴⁶ Thus, we estimate that at least 1,932 licensees are small businesses. Since 2007, Cable Television Distribution Services have been defined within the broad economic census category of Wired Telecommunications Carriers; that category is defined as follows: "This industry comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies."¹⁴⁷ The SBA defines a small business size standard for this category as any such firms having 1,500 or fewer employees. The SBA has developed a small business size standard for this category, which is: all such firms having 1,500 or fewer employees. According to Census Bureau data for 2007, there were a total of 955 firms in this previous category that operated for the entire year.¹⁴⁸ Of this total, 939 firms had employment of 999 or fewer employees, and 16 firms had employment of 1000 employees or more.¹⁴⁹ Thus, under this size standard, the majority of firms can be considered small and may be affected by rules adopted pursuant to the Order.

65. **Lower 700 MHz Band Licenses.** The Commission previously adopted criteria for defining three groups of small businesses for purposes of determining their eligibility for special provisions such as bidding credits.¹⁵⁰ The Commission defined a "small business" as an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$40 million for the preceding three years.¹⁵¹ A "very small business" is defined as an entity that, together with

¹⁴³ 47 C.F.R. § 27.1218. *See also* "Auction of Broadband Radio Service (BRS) Licenses, Scheduled for October 27, 2009, Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments, and Other Procedures for Auction 86," *Public Notice*, 24 FCC Rcd 8277, 8296 (WTB 2009) (*Auction 86 Procedures Public Notice*).

¹⁴⁴ *Auction 86 Procedures Public Notice*, 24 FCC Rcd at 8280.

¹⁴⁵ "Auction of Broadband Radio Service Licenses Closes, Winning Bidders Announced for Auction 86, Down Payments Due November 23, 2009, Final Payments Due December 8, 2009, Ten-Day Petition to Deny Period," *Public Notice*, 24 FCC Rcd 13572 (WTB 2009).

¹⁴⁶ The term "small entity" within SBREFA applies to small organizations (nonprofits) and to small governmental jurisdictions (cities, counties, towns, townships, villages, school districts, and special districts with populations of less than 50,000). 5 U.S.C. §§ 601(4)-(6). We do not collect annual revenue data on EBS licensees.

¹⁴⁷ U.S. Census Bureau, 2007 NAICS Definitions, "517110 Wired Telecommunications Carriers" (partial definition); <http://www.census.gov/naics/2007/def/ND517110.HTM#N517110>.

¹⁴⁸ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, Table 5, Employment Size of Firms for the United States: 2007, NAICS code 5171102 (issued Nov. 2010).

¹⁴⁹ *See id.*

¹⁵⁰ *See Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59)*, GN Docket No. 01-74, Report and Order, 17 FCC Rcd 1022 (2002) (*Channels 52-59 Report and Order*).

¹⁵¹ *See Channels 52-59 Report and Order*, 17 FCC Rcd at 1087-88 para. 172.

its affiliates and controlling principals, has average gross revenues that are not more than \$15 million for the preceding three years.¹⁵² Additionally, the Lower 700 MHz Band had a third category of small business status for Metropolitan/Rural Service Area (“MSA/RSA”) licenses, identified as “entrepreneur” and defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$3 million for the preceding three years.¹⁵³ The SBA approved these small size standards.¹⁵⁴ The Commission conducted an auction in 2002 of 740 Lower 700 MHz Band licenses (one license in each of the 734 MSAs/RSAs and one license in each of the six Economic Area Groupings (EAGs)). Of the 740 licenses available for auction, 484 licenses were sold to 102 winning bidders.¹⁵⁵ Seventy-two of the winning bidders claimed small business, very small business or entrepreneur status and won a total of 329 licenses.¹⁵⁶ The Commission conducted a second Lower 700 MHz Band auction in 2003 that included 256 licenses: 5 EAG licenses and 476 Cellular Market Area licenses.¹⁵⁷ Seventeen winning bidders claimed small or very small business status and won 60 licenses, and nine winning bidders claimed entrepreneur status and won 154 licenses.¹⁵⁸ In 2005, the Commission completed an auction of 5 licenses in the Lower 700 MHz Band, designated Auction 60. There were three winning bidders for five licenses. All three winning bidders claimed small business status.¹⁵⁹

66. In 2007, the Commission reexamined its rules governing the 700 MHz band in the *700 MHz Second Report and Order*.¹⁶⁰ The *700 MHz Second Report and Order* revised the band plan for the commercial (including Guard Band) and public safety spectrum, adopted services rules, including stringent build-out requirements, an open platform requirement on the C Block, and a requirement on the D Block licensee to construct and operate a nationwide, interoperable wireless broadband network for public safety users.¹⁶¹ An auction of A, B and E block licenses in the Lower 700 MHz band was held in

¹⁵² *See id.*

¹⁵³ *See id.* at 1088 para. 173.

¹⁵⁴ *See Alvarez Letter 1999.*

¹⁵⁵ *See* “Lower 700 MHz Band Auction Closes,” *Public Notice*, 17 FCC Rcd 17272 (WTB 2002).

¹⁵⁶ *Id.*

¹⁵⁷ *See* “Lower 700 MHz Band Auction Closes,” *Public Notice*, 18 FCC Rcd 11873 (WTB 2003).

¹⁵⁸ *See id.*

¹⁵⁹ “Auction of Lower 700 MHz Band Licenses Closes, Winning Bidders Announced for Auction No. 60, Down Payments due August 19, 2005, FCC Forms 601 and 602 due August 19, 2005, Final Payment due September 2, 2005, Ten-Day Petition to Deny Period,” *Public Notice*, 20 FCC Rcd 13424 (WTB 2005).

¹⁶⁰ *Service Rules for the 698-746, 747-762 and 777-792 MHz Band, WT Docket No. 06-150, Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, Section 68.4(a) of the Commission’s Rules Governing Hearing Aid-Compatible Telephone, Biennial Regulatory Review – Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services, Former Nextel Communications, Inc. Upper700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission’s Rules, Implementing a Nationwide, Broadband Interoperable Public Safety Network in the 700 MHz Band, Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Communications Requirements Through the Year 2010, WT Docket Nos. 96-86, 01-309, 03-264, 06-169, PS Docket No. 06-229, Second Report and Order, 22 FCC Rcd 15289 (2007) (700 MHz Second Report and Order).*

¹⁶¹ *Service Rules for the 698-746, 747-762 and 777-792 MHz Band, WT Docket No. 06-150, Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, Section 68.4(a) of the Commission’s Rules Governing Hearing Aid-Compatible Telephone, WT Docket No. 01-309, Biennial Regulatory Review – Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services, WT Docket No. 03-264, Former Nextel Communications, Inc. Upper700 (continued...)*

2008.¹⁶² Twenty winning bidders claimed small business status (those with attributable average annual gross revenues that exceed \$15 million and do not exceed \$40 million for the preceding three years). Thirty three winning bidders claimed very small business status (those with attributable average annual gross revenues that do not exceed \$15 million for the preceding three years). In 2011, the Commission conducted Auction 92, which offered 16 Lower 700 MHz band licenses that had been made available in Auction 73 but either remained unsold or were licenses on which a winning bidder defaulted. Two of the seven winning bidders in Auction 92 claimed very small business status, winning a total of four licenses.¹⁶³

67. **Upper 700 MHz Band Licenses.** In the *700 MHz Second Report and Order*, the Commission revised its rules regarding Upper 700 MHz band licenses.¹⁶⁴ In 2008, the Commission conducted Auction 73 in which C and D block licenses in the Upper 700 MHz band were available.¹⁶⁵ Three winning bidders claimed very small business status (those with attributable average annual gross revenues that do not exceed \$15 million for the preceding three years).

68. **700 MHz Guard Band Licensees.** In the *700 MHz Guard Band Order*, we adopted a small business size standard for “small businesses” and “very small businesses” for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.¹⁶⁶ A “small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$40 million for the preceding three years.¹⁶⁷ Additionally, a “very small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$15 million for the preceding three years.¹⁶⁸ An auction of 52 Major Economic Area (MEA) licenses commenced on September 6, 2000, and closed on September 21, 2000.¹⁶⁹ Of the 104 licenses auctioned, 96 licenses were sold to nine bidders. Five of these bidders were small businesses that won a total of 26 licenses. A second auction of 700 MHz Guard Band licenses commenced on February 13, 2001 and closed on February 21, 2001. All eight of the licenses auctioned were sold to three bidders. One of these bidders was a small business that won a total of two licenses.¹⁷⁰

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MHz Guard Band Licenses and Revisions to Part 27 of the Commission’s Rules, WT Docket No. 06-169, *Implementing a Nationwide, Broadband Interoperable Public Safety Network in the 700 MHz Band*, PS Docket No. 06-229, *Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Communications Requirements Through the Year 2010*, WT Docket No. 96-86, Second Report and Order, 22 FCC Rcd 15289 (2007) (“*700 MHz Second Report and Order*”).

¹⁶² See Auction of 700 MHz Band Licenses Closes, *Public Notice*, 23 FCC Rcd 4572 (WTB 2008).

¹⁶³ See “Auction of 700 MHz Band Licenses Closes, Winning Bidders Announced for Auction 92, Down Payments and FCC Forms 601 and 602 Due August 11, 2011, Final Payments Due August 25, 2011, Ten-Day Petition to Deny Period,” *Public Notice*, 26 FCC Rcd 10,494 (WTB 2011).

¹⁶⁴ 700 MHz Second Report and Order, 22 FCC Rcd 15,289.

¹⁶⁵ See Auction of 700 MHz Band Licenses Closes, *Public Notice*, 23 FCC Rcd 4572 (2008).

¹⁶⁶ See *Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission’s Rules*, WT Docket No. 99-168, Second Report and Order, 15 FCC Rcd 5299 (2000) (*700 MHz Guard Band Order*).

¹⁶⁷ See *id.* at 5343–45 paras. 106–10.

¹⁶⁸ See *id.*

¹⁶⁹ See “700 MHz Guard Band Auction Closes,” *Public Notice*, 15 FCC Rcd 18026 (2000).

¹⁷⁰ See “700 MHz Guard Band Auction Closes,” *Public Notice*, 16 FCC Rcd 4590 (2001).

69. **Cellular Radiotelephone Service.** Auction 77 was held to resolve one group of mutually exclusive applications for Cellular Radiotelephone Service licenses for unserved areas in New Mexico.¹⁷¹ Bidding credits for designated entities were not available in Auction 77.¹⁷² In 2008, the Commission completed the closed auction of one unserved service area in the Cellular Radiotelephone Service, designated as Auction 77. Auction 77 concluded with one provisionally winning bid for the unserved area totaling \$25,002.¹⁷³

70. **Private Land Mobile Radio (“PLMR”).** PLMR systems serve an essential role in a range of industrial, business, land transportation, and public safety activities. These radios are used by companies of all sizes operating in all U.S. business categories, and are often used in support of the licensee’s primary (non-telecommunications) business operations. For the purpose of determining whether a licensee of a PLMR system is a small business as defined by the SBA, we use the broad census category, Wireless Telecommunications Carriers (except Satellite). This definition provides that a small entity is any such entity employing no more than 1,500 persons.¹⁷⁴ The Commission does not require PLMR licensees to disclose information about number of employees, so the Commission does not have information that could be used to determine how many PLMR licensees constitute small entities under this definition. We note that PLMR licensees generally use the licensed facilities in support of other business activities, and therefore, it would also be helpful to assess PLMR licensees under the standards applied to the particular industry subsector to which the licensee belongs.¹⁷⁵

71. As of March 2010, there were 424,162 PLMR licensees operating 921,909 transmitters in the PLMR bands below 512 MHz. We note that any entity engaged in a commercial activity is eligible to hold a PLMR license, and that any revised rules in this context could therefore potentially impact small entities covering a great variety of industries.

72. **Rural Radiotelephone Service.** The Commission has not adopted a size standard for small businesses specific to the Rural Radiotelephone Service.¹⁷⁶ A significant subset of the Rural Radiotelephone Service is the Basic Exchange Telephone Radio System (“BETRS”).¹⁷⁷ In the present context, we will use the SBA’s small business size standard applicable to Wireless Telecommunications Carriers (except Satellite), *i.e.*, an entity employing no more than 1,500 persons.¹⁷⁸ There are approximately 1,000 licensees in the Rural Radiotelephone Service, and the Commission estimates that there are 1,000 or fewer small entity licensees in the Rural Radiotelephone Service that may be affected by the rules and policies proposed herein.

73. **Air-Ground Radiotelephone Service.** The Commission has not adopted a small business size standard specific to the Air-Ground Radiotelephone Service.¹⁷⁹ We will use SBA’s small

¹⁷¹ See “Closed Auction of Licenses for Cellular Unserved Service Area Scheduled for June 17, 2008, Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments, and Other Procedures for Auction 77,” *Public Notice*, 23 FCC Rcd 6670 (WTB 2008).

¹⁷² *Id.* at 6685.

¹⁷³ See *Auction of Cellular Unserved Service Area License Closes, Winning Bidder Announced for Auction 77, Down Payment due July 2, 2008, Final Payment due July 17, 2008*, Public Notice, 23 FCC Rcd 9501 (WTB 2008).

¹⁷⁴ See 13 C.F.R. § 121.201, NAICS code 517210.

¹⁷⁵ See generally 13 C.F.R. § 121.201.

¹⁷⁶ The service is defined in 47 C.F.R. § 22.99.

¹⁷⁷ BETRS is defined in 47 C.F.R. §§ 22.757 and 22.759.

¹⁷⁸ 13 C.F.R. § 121.201, NAICS code 517210.

¹⁷⁹ See 47 C.F.R. § 22.99.

business size standard applicable to Wireless Telecommunications Carriers (except Satellite), *i.e.*, an entity employing no more than 1,500 persons.¹⁸⁰ There are approximately 100 licensees in the Air-Ground Radiotelephone Service, and we estimate that almost all of them qualify as small under the SBA small business size standard and may be affected by rules adopted pursuant to the Order.

74. **Aviation and Marine Radio Services.** Small businesses in the aviation and marine radio services use a very high frequency (VHF) marine or aircraft radio and, as appropriate, an emergency position-indicating radio beacon (and/or radar) or an emergency locator transmitter. The Commission has not developed a small business size standard specifically applicable to these small businesses. For purposes of this analysis, the Commission uses the SBA small business size standard for the category Wireless Telecommunications Carriers (except Satellite), which is 1,500 or fewer employees.¹⁸¹ Census data for 2007, which supersede data contained in the 2002 Census, show that there were 1,383 firms that operated that year.¹⁸² Of those 1,383, 1,368 had fewer than 100 employees, and 15 firms had more than 100 employees. Most applicants for recreational licenses are individuals. Approximately 581,000 ship station licensees and 131,000 aircraft station licensees operate domestically and are not subject to the radio carriage requirements of any statute or treaty. For purposes of our evaluations in this analysis, we estimate that there are up to approximately 712,000 licensees that are small businesses (or individuals) under the SBA standard. In addition, between December 3, 1998 and December 14, 1998, the Commission held an auction of 42 VHF Public Coast licenses in the 157.1875-157.4500 MHz (ship transmit) and 161.775-162.0125 MHz (coast transmit) bands. For purposes of the auction, the Commission defined a “small” business as an entity that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed \$15 million dollars.¹⁸³ In addition, a “very small” business is one that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed \$3 million dollars.¹⁸⁴ There are approximately 10,672 licensees in the Marine Coast Service, and the Commission estimates that almost all of them qualify as “small” businesses under the above special small business size standards and may be affected by rules adopted pursuant to the Order.

75. **Fixed Microwave Services.** Fixed microwave services include common carrier,¹⁸⁵ private operational-fixed,¹⁸⁶ and broadcast auxiliary radio services.¹⁸⁷ At present, there are approximately

¹⁸⁰ See 13 C.F.R. § 121.201, NAICS code 517210.

¹⁸¹ See 13 C.F.R. § 121.201, NAICS code 517210.

¹⁸² U.S. Census Bureau, 2007 Economic Census, Sector 51, 2007 NAICS code 517210 (rel. Oct. 20, 2009), http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-fds_name=EC0700A1&-_skip=700&-ds_name=EC0751SSSZ5&-_lang=en.

¹⁸³ See generally *Amendment of the Commission's Rules Concerning Maritime Communications*, PR Docket No. 92-257, Third Report and Order and Memorandum Opinion and Order, 13 FCC Rcd 19853, 19884–88 paras. 64–73 (1998).

¹⁸⁴ See *id.*

¹⁸⁵ See 47 C.F.R. §§ 101 *et seq.* (formerly, Part 21 of the Commission's Rules) for common carrier fixed microwave services (except Multipoint Distribution Service).

¹⁸⁶ Persons eligible under parts 80 and 90 of the Commission's Rules can use Private Operational-Fixed Microwave services. See 47 C.F.R. Parts 80 and 90. Stations in this service are called operational-fixed to distinguish them from common carrier and public fixed stations. Only the licensee may use the operational-fixed station, and only for communications related to the licensee's commercial, industrial, or safety operations.

¹⁸⁷ Auxiliary Microwave Service is governed by Part 74 of Title 47 of the Commission's Rules. See 47 C.F.R. Part 74. This service is available to licensees of broadcast stations and to broadcast and cable network entities. (continued...)

22,015 common carrier fixed licensees and 61,670 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services. The Commission has not created a size standard for a small business specifically with respect to fixed microwave services. For purposes of this analysis, the Commission uses the SBA small business size standard for Wireless Telecommunications Carriers (except Satellite), which is 1,500 or fewer employees.¹⁸⁸ The Commission does not have data specifying the number of these licensees that have more than 1,500 employees, and thus is unable at this time to estimate with greater precision the number of fixed microwave service licensees that would qualify as small business concerns under the SBA's small business size standard. Consequently, the Commission estimates that there are up to 22,015 common carrier fixed licensees and up to 61,670 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services that may be small and may be affected by the rules and policies adopted herein. We note, however, that the common carrier microwave fixed licensee category includes some large entities.

76. **Offshore Radiotelephone Service.** This service operates on several UHF television broadcast channels that are not used for television broadcasting in the coastal areas of states bordering the Gulf of Mexico.¹⁸⁹ There are presently approximately 55 licensees in this service. The Commission is unable to estimate at this time the number of licensees that would qualify as small under the SBA's small business size standard for the category of Wireless Telecommunications Carriers (except Satellite). Under that SBA small business size standard, a business is small if it has 1,500 or fewer employees.¹⁹⁰ Census data for 2007, which supersede data contained in the 2002 Census, show that there were 1,383 firms that operated that year.¹⁹¹ Of those 1,383, 1,368 had fewer than 100 employees, and 15 firms had more than 100 employees. Thus, under this category and the associated small business size standard, the majority of firms can be considered small.

77. **39 GHz Service.** The Commission created a special small business size standard for 39 GHz licenses – an entity that has average gross revenues of \$40 million or less in the three previous calendar years.¹⁹² An additional size standard for “very small business” is: an entity that, together with affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years.¹⁹³ The SBA has approved these small business size standards.¹⁹⁴ The auction of the 2,173 39 GHz licenses began on April 12, 2000 and closed on May 8, 2000. The 18 bidders who claimed small business status won 849 licenses. Consequently, the Commission estimates that 18 or fewer 39 GHz licensees are small entities that may be affected by rules adopted pursuant to the Order.

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Broadcast auxiliary microwave stations are used for relaying broadcast television signals from the studio to the transmitter, or between two points such as a main studio and an auxiliary studio. The service also includes mobile television pickups, which relay signals from a remote location back to the studio.

¹⁸⁸ See 13 C.F.R. § 121.201, NAICS code 517210.

¹⁸⁹ This service is governed by Subpart I of Part 22 of the Commission's Rules. See 47 C.F.R. §§ 22.1001-22.1037.

¹⁹⁰ *Id.*

¹⁹¹ U.S. Census Bureau, 2007 Economic Census, Sector 51, 2007 NAICS code 517210 (rel. Oct. 20, 2009), http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-fds_name=EC0700A1&-_skip=700&-ds_name=EC0751SSSZ5&-_lang=en.

¹⁹² See *Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands*, ET Docket No. 95-183, PP Docket No. 93-253, Report and Order, 12 FCC Rcd 18600, 18661-64, paras. 149-151 (1997).

¹⁹³ See *id.*

¹⁹⁴ See Letter to Kathleen O'Brien Ham, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC, from Aida Alvarez, Administrator, SBA (Feb. 4, 1998).

78. **Local Multipoint Distribution Service.** Local Multipoint Distribution Service (“LMDS”) is a fixed broadband point-to-multipoint microwave service that provides for two-way video telecommunications.¹⁹⁵ The auction of the 986 LMDS licenses began and closed in 1998. The Commission established a small business size standard for LMDS licenses as an entity that has average gross revenues of less than \$40 million in the three previous calendar years.¹⁹⁶ An additional small business size standard for “very small business” was added as an entity that, together with its affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years.¹⁹⁷ The SBA has approved these small business size standards in the context of LMDS auctions.¹⁹⁸ There were 93 winning bidders that qualified as small entities in the LMDS auctions. A total of 93 small and very small business bidders won approximately 277 A Block licenses and 387 B Block licenses. In 1999, the Commission re-auctioned 161 licenses; there were 32 small and very small businesses winning that won 119 licenses.

79. **218-219 MHz Service.** The first auction of 218-219 MHz spectrum resulted in 170 entities winning licenses for 594 Metropolitan Statistical Area (MSA) licenses. Of the 594 licenses, 557 were won by entities qualifying as a small business. For that auction, the small business size standard was an entity that, together with its affiliates, has no more than a \$6 million net worth and, after federal income taxes (excluding any carry over losses), has no more than \$2 million in annual profits each year for the previous two years.¹⁹⁹ In the *218-219 MHz Report and Order and Memorandum Opinion and Order*, we established a small business size standard for a “small business” as an entity that, together with its affiliates and persons or entities that hold interests in such an entity and their affiliates, has average annual gross revenues not to exceed \$15 million for the preceding three years.²⁰⁰ A “very small business” is defined as an entity that, together with its affiliates and persons or entities that hold interests in such an entity and its affiliates, has average annual gross revenues not to exceed \$3 million for the preceding three years.²⁰¹ These size standards will be used in future auctions of 218-219 MHz spectrum.

80. **2.3 GHz Wireless Communications Services.** This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses. The Commission defined “small business” for the wireless communications services (“WCS”) auction as an entity with average gross revenues of \$40 million for each of the three preceding years, and a “very small business” as an entity with average gross revenues of \$15 million for each of the three preceding years.²⁰² The SBA has

¹⁹⁵ See *Rulemaking to Amend Parts 1, 2, 21, 25, of the Commission’s Rules to Redesignate the 27.5-29.5 GHz Frequency Band, Reallocate the 29.5-30.5 Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services*, CC Docket No. 92-297, Second Report and Order, Order on Reconsideration, and Fifth Notice of Proposed Rule Making, 12 FCC Rcd 12545, 12689-90, para. 348 (1997) (“*LMDS Second Report and Order*”).

¹⁹⁶ See *LMDS Second Report and Order*, 12 FCC Rcd at 12689-90, para. 348.

¹⁹⁷ See *id.*

¹⁹⁸ See *Alvarez to Phythyon Letter 1998*.

¹⁹⁹ See generally *Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, PP Docket No. 93-253, Fourth Report and Order, 9 FCC Rcd 2330 (1994).

²⁰⁰ See generally *Amendment of Part 95 of the Commission’s Rules to Provide Regulatory Flexibility in the 218-219 MHz Service*, WT Docket No. 98-169, Report and Order and Memorandum Opinion and Order, 15 FCC Rcd 1497 (1999).

²⁰¹ See *id.*

²⁰² *Amendment of the Commission’s Rules to Establish Part 27, the Wireless Communications Service (WCS)*, GN Docket No. 96-228, Report and Order, 12 FCC Rcd 10785, 10879 para. 194 (1997).

approved these definitions.²⁰³ The Commission auctioned geographic area licenses in the WCS service. In the auction, which was conducted in 1997, there were seven bidders that won 31 licenses that qualified as very small business entities, and one bidder that won one license that qualified as a small business entity.

81. **1670-1675 MHz Band.** An auction for one license in the 1670-1675 MHz band was conducted in 2003. The Commission defined a “small business” as an entity with attributable average annual gross revenues of not more than \$40 million for the preceding three years and thus would be eligible for a 15 percent discount on its winning bid for the 1670-1675 MHz band license. Further, the Commission defined a “very small business” as an entity with attributable average annual gross revenues of not more than \$15 million for the preceding three years and thus would be eligible to receive a 25 percent discount on its winning bid for the 1670-1675 MHz band license. One license was awarded. The winning bidder was not a small entity.

82. **3650–3700 MHz band.** In March 2005, the Commission released a *Report and Order and Memorandum Opinion and Order* that provides for nationwide, non-exclusive licensing of terrestrial operations, utilizing contention-based technologies, in the 3650 MHz band (*i.e.*, 3650–3700 MHz).²⁰⁴ As of April 2010, more than 1270 licenses have been granted and more than 7433 sites have been registered. The Commission has not developed a definition of small entities applicable to 3650–3700 MHz band nationwide, non-exclusive licensees. However, we estimate that the majority of these licensees are Internet Access Service Providers (ISPs) and that most of those licensees are small businesses.

83. **24 GHz – Incumbent Licensees.** This analysis may affect incumbent licensees who were relocated to the 24 GHz band from the 18 GHz band, and applicants who wish to provide services in the 24 GHz band. For this service, the Commission uses the SBA small business size standard for the category “Wireless Telecommunications Carriers (except satellite),” which is 1,500 or fewer employees.²⁰⁵ To gauge small business prevalence for these cable services we must, however, use the most current census data. Census data for 2007, which supersede data contained in the 2002 Census, show that there were 1,383 firms that operated that year.²⁰⁶ Of those 1,383, 1,368 had fewer than 100 employees, and 15 firms had more than 100 employees. Thus under this category and the associated small business size standard, the majority of firms can be considered small. The Commission notes that the Census’ use of the classifications “firms” does not track the number of “licenses”. The Commission believes that there are only two licensees in the 24 GHz band that were relocated from the 18 GHz band, Teligent²⁰⁷ and TRW, Inc. It is our understanding that Teligent and its related companies have less than 1,500 employees, though this may change in the future. TRW is not a small entity. Thus, only one incumbent licensee in the 24 GHz band is a small business entity.

84. **24 GHz – Future Licensees.** With respect to new applicants in the 24 GHz band, the size standard for “small business” is an entity that, together with controlling interests and affiliates, has

²⁰³ See Letter from Aida Alvarez, Administrator, SBA, to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC (Dec. 2, 1998) (*Alvarez Letter 1998*).

²⁰⁴ The service is defined in section 90.1301 *et seq.* of the Commission’s Rules, 47 C.F.R. § 90.1301 *et seq.*

²⁰⁵ 13 C.F.R. § 121.201, NAICS code 517210.

²⁰⁶ U.S. Census Bureau, 2007 Economic Census, Sector 51, 2007 NAICS code 517210 (rel. Oct. 20, 2009), http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-fds_name=EC0700A1&-_skip=700&-ds_name=EC0751SSSZ5&-_lang=en.

²⁰⁷ Teligent acquired the DEMS licenses of FirstMark, the only licensee other than TRW in the 24 GHz band whose license has been modified to require relocation to the 24 GHz band.

average annual gross revenues for the three preceding years not in excess of \$15 million.²⁰⁸ “Very small business” in the 24 GHz band is an entity that, together with controlling interests and affiliates, has average gross revenues not exceeding \$3 million for the preceding three years.²⁰⁹ The SBA has approved these small business size standards.²¹⁰ These size standards will apply to a future 24 GHz license auction, if held.

85. **Satellite Telecommunications.** Since 2007, the SBA has recognized satellite firms within this revised category, with a small business size standard of \$15 million.²¹¹ The most current Census Bureau data are from the economic census of 2007, and we will use those figures to gauge the prevalence of small businesses in this category. Those size standards are for the two census categories of “Satellite Telecommunications” and “Other Telecommunications.” Under the “Satellite Telecommunications” category, a business is considered small if it had \$15 million or less in average annual receipts.²¹² Under the “Other Telecommunications” category, a business is considered small if it had \$25 million or less in average annual receipts.²¹³

86. The first category of Satellite Telecommunications “comprises establishments primarily engaged in providing point-to-point telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications.”²¹⁴ For this category, Census Bureau data for 2007 show that there were a total of 512 firms that operated for the entire year.²¹⁵ Of this total, 464 firms had annual receipts of under \$10 million, and 18 firms had receipts of \$10 million to \$24,999,999.²¹⁶ Consequently, we estimate that the majority of Satellite Telecommunications firms are small entities that might be affected by rules adopted pursuant to the Order.

87. The second category of Other Telecommunications “primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems. Establishments providing Internet services or voice over Internet protocol (VoIP) services via client-supplied telecommunications connections are also included in this industry.”²¹⁷ For this category, Census

²⁰⁸ See *Amendments to Parts 1, 2, 87 and 101 of the Commission’s Rules to License Fixed Services at 24 GHz*, WT Docket No. 99-327, Report and Order, 15 FCC Rcd 16934, 16967 para. 77 (2000); see also 47 C.F.R. § 101.538(a)(2).

²⁰⁹ See *Amendments to Parts 1, 2, 87 and 101 of the Commission’s Rules to License Fixed Services at 24 GHz*, WT Docket No. 99-327, Report and Order, 15 FCC Rcd 16934, 16967 para. 77 (2000); see also 47 C.F.R. § 101.538(a)(1).

²¹⁰ See Letter to Margaret W. Wiener, Deputy Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC, from Gary M. Jackson, Assistant Administrator, SBA (July 28, 2000).

²¹¹ See 13 C.F.R. § 121.201, NAICS code 517410.

²¹² *Id.*

²¹³ See 13 C.F.R. § 121.201, NAICS code 517919.

²¹⁴ U.S. Census Bureau, 2007 NAICS Definitions, “517410 Satellite Telecommunications”.

²¹⁵ See 13 C.F.R. § 121.201, NAICS code 517410.

²¹⁶ See *id.* An additional 38 firms had annual receipts of \$25 million or more.

²¹⁷ U.S. Census Bureau, 2007 NAICS Definitions, “517919 Other Telecommunications”, <http://www.census.gov/naics/2007/def/ND517919.HTM>.

Bureau data for 2007 show that there were a total of 2,383 firms that operated for the entire year.²¹⁸ Of this total, 2,346 firms had annual receipts of under \$25 million.²¹⁹ Consequently, we estimate that the majority of Other Telecommunications firms are small entities that might be affected by our action.

88. **Cable and Other Program Distribution.** Since 2007, these services have been defined within the broad economic census category of Wired Telecommunications Carriers; that category is defined as follows: “This industry comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies.”²²⁰ The SBA has developed a small business size standard for this category, which is: all such firms having 1,500 or fewer employees.²²¹ According to Census Bureau data for 2007, there were a total of 955 firms in this previous category that operated for the entire year.²²² Of this total, 939 firms had employment of 999 or fewer employees, and 16 firms had employment of 1000 employees or more.²²³ Thus, under this size standard, the majority of firms can be considered small and may be affected by rules adopted pursuant to the Order.

89. **Cable Companies and Systems.** The Commission has developed its own small business size standards, for the purpose of cable rate regulation. Under the Commission’s rules, a “small cable company” is one serving 400,000 or fewer subscribers, nationwide.²²⁴ Industry data indicate that, of 1,076 cable operators nationwide, all but eleven are small under this size standard.²²⁵ In addition, under the Commission’s rules, a “small system” is a cable system serving 15,000 or fewer subscribers.²²⁶ Industry data indicate that, of 7,208 systems nationwide, 6,139 systems have under 10,000 subscribers, and an additional 379 systems have 10,000-19,999 subscribers.²²⁷ Thus, under this second size standard, most cable systems are small and may be affected by rules adopted pursuant to the Order.

²¹⁸ See 13 C.F.R. § 121.201, NAICS code 517919.

²¹⁹ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, Table 5, “Establishment and Firm Size: Employment Size of Firms for the United States: 2007 NAICS Code 517919” (issued Nov. 2010).

²²⁰ U.S. Census Bureau, 2007 NAICS Definitions, “517110 Wired Telecommunications Carriers” (partial definition), <http://www.census.gov/naics/2007/def/ND517110.HTM#N517110>.

²²¹ 13 C.F.R. § 121.201, NAICS code 517110.

²²² U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, Table 5, Employment Size of Firms for the United States: 2007, NAICS code 5171102 (issued Nov. 2010).

²²³ See *id.*

²²⁴ See 47 C.F.R. § 76.901(e). The Commission determined that this size standard equates approximately to a size standard of \$100 million or less in annual revenues. See *Implementation of Sections of the 1992 Cable Television Consumer Protection and Competition Act: Rate Regulation*, MM Docket Nos. 92-266, 93-215, Sixth Report and Order and Eleventh Order on Reconsideration, 10 FCC Rcd 7393, 7408 para. 28 (1995).

²²⁵ These data are derived from R.R. BOWKER, BROADCASTING & CABLE YEARBOOK 2006, “Top 25 Cable/Satellite Operators,” pages A-8 & C-2 (data current as of June 30, 2005); WARREN COMMUNICATIONS NEWS, TELEVISION & CABLE FACTBOOK 2006, “Ownership of Cable Systems in the United States,” pages D-1805 to D-1857.

²²⁶ See 47 C.F.R. § 76.901(c).

²²⁷ WARREN COMMUNICATIONS NEWS, TELEVISION & CABLE FACTBOOK 2006, “U.S. Cable Systems by Subscriber Size,” page F-2 (data current as of Oct. 2005). The data do not include 718 systems for which classifying data were not available.

90. **Cable System Operators.** The Act also contains a size standard for small cable system operators, which is “a cable operator that, directly or through an affiliate, serves in the aggregate fewer than 1 percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed \$250,000,000.”²²⁸ The Commission has determined that an operator serving fewer than 677,000 subscribers shall be deemed a small operator, if its annual revenues, when combined with the total annual revenues of all its affiliates, do not exceed \$250 million in the aggregate.²²⁹ Industry data indicate that, of 1,076 cable operators nationwide, all but ten are small under this size standard.²³⁰ We note that the Commission neither requests nor collects information on whether cable system operators are affiliated with entities whose gross annual revenues exceed \$250 million,²³¹ and therefore we are unable to estimate more accurately the number of cable system operators that would qualify as small under this size standard.

91. **Open Video Services.** The open video system (“OVS”) framework was established in 1996, and is one of four statutorily recognized options for the provision of video programming services by local exchange carriers.²³² The OVS framework provides opportunities for the distribution of video programming other than through cable systems. Because OVS operators provide subscription services,²³³ OVS falls within the SBA small business size standard covering cable services, which is “Wired Telecommunications Carriers.”²³⁴ The SBA has developed a small business size standard for this category, which is: all such firms having 1,500 or fewer employees. According to Census Bureau data for 2007, there were a total of 955 firms in this previous category that operated for the entire year.²³⁵ Of this total, 939 firms had employment of 999 or fewer employees, and 16 firms had employment of 1000 employees or more.²³⁶ Thus, under this second size standard, most cable systems are small and may be affected by rules adopted pursuant to the Order. In addition, we note that the Commission has certified some OVS operators, with some now providing service.²³⁷ Broadband service providers

²²⁸ 47 U.S.C. § 543(m)(2); *see also* 47 C.F.R. § 76.901(f) & nn.1–3.

²²⁹ 47 C.F.R. § 76.901(f); *see FCC Announces New Subscriber Count for the Definition of Small Cable Operator*, Public Notice, 16 FCC Rcd 2225 (Cable Services Bureau 2001).

²³⁰ These data are derived from R.R. BOWKER, BROADCASTING & CABLE YEARBOOK 2006, “Top 25 Cable/Satellite Operators,” pages A-8 & C-2 (data current as of June 30, 2005); WARREN COMMUNICATIONS NEWS, TELEVISION & CABLE FACTBOOK 2006, “Ownership of Cable Systems in the United States,” pages D-1805 to D-1857.

²³¹ The Commission does receive such information on a case-by-case basis if a cable operator appeals a local franchise authority’s finding that the operator does not qualify as a small cable operator pursuant to § 76.901(f) of the Commission’s rules.

²³² 47 U.S.C. § 571(a)(3)-(4). *See Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, MB Docket No. 06-189, Thirteenth Annual Report, 24 FCC Rcd 542, 606 para. 135 (2009) (“*Thirteenth Annual Cable Competition Report*”).

²³³ *See* 47 U.S.C. § 573.

²³⁴ U.S. Census Bureau, 2007 NAICS Definitions, “517110 Wired Telecommunications Carriers”; <http://www.census.gov/naics/2007/def/ND517110.HTM#N517110>.

²³⁵ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, Table 5, Employment Size of Firms for the United States: 2007, NAICS code 5171102 (issued Nov. 2010).

²³⁶ *See id.*

²³⁷ A list of OVS certifications may be found at <http://www.fcc.gov/mb/ovs/csovsr.html>.

(“BSPs”) are currently the only significant holders of OVS certifications or local OVS franchises.²³⁸ The Commission does not have financial or employment information regarding the entities authorized to provide OVS, some of which may not yet be operational. Thus, again, at least some of the OVS operators may qualify as small entities.

92. **Internet Service Providers.** Since 2007, these services have been defined within the broad economic census category of Wired Telecommunications Carriers; that category is defined as follows: “This industry comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies.”²³⁹ The SBA has developed a small business size standard for this category, which is: all such firms having 1,500 or fewer employees.²⁴⁰ According to Census Bureau data for 2007, there were 3,188 firms in this category, total, that operated for the entire year.²⁴¹ Of this total, 3,144 firms had employment of 999 or fewer employees, and 44 firms had employment of 1000 employees or more.²⁴² Thus, under this size standard, the majority of firms can be considered small. In addition, according to Census Bureau data for 2007, there were a total of 396 firms in the category Internet Service Providers (broadband) that operated for the entire year.²⁴³ Of this total, 394 firms had employment of 999 or fewer employees, and two firms had employment of 1000 employees or more.²⁴⁴ Consequently, we estimate that the majority of these firms are small entities that may be affected by rules adopted pursuant to the Order.

93. **Internet Publishing and Broadcasting and Web Search Portals.** Our action may pertain to interconnected VoIP services, which could be provided by entities that provide other services such as email, online gaming, web browsing, video conferencing, instant messaging, and other, similar IP-enabled services. The Commission has not adopted a size standard for entities that create or provide these types of services or applications. However, the Census Bureau has identified firms that “primarily engaged in 1) publishing and/or broadcasting content on the Internet exclusively or 2) operating Web sites that use a search engine to generate and maintain extensive databases of Internet addresses and content in an easily searchable format (and known as Web search portals).”²⁴⁵ The SBA has developed a small business size standard for this category, which is: all such firms having 500 or fewer employees.²⁴⁶ According to Census Bureau data for 2007, there were 2,705 firms in this category that

²³⁸ See *Thirteenth Annual Cable Competition Report*, 24 FCC Rcd at 606-07 para. 135. BSPs are newer firms that are building state-of-the-art, facilities-based networks to provide video, voice, and data services over a single network.

²³⁹ U.S. Census Bureau, 2007 NAICS Definitions, “517110 Wired Telecommunications Carriers” (partial definition), <http://www.census.gov/naics/2007/def/ND517110.HTM#N517110>.

²⁴⁰ 13 C.F.R. § 121.201, NAICS code 517110.

²⁴¹ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, Table 5, “Establishment and Firm Size: Employment Size of Firms for the United States: 2007 NAICS Code 517110” (issued Nov. 2010).

²⁴² See *id.*

²⁴³ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, Table 5, Employment Size of Firms for the United States: 2007, NAICS code 5171103 (issued Nov. 2010).

²⁴⁴ See *id.*

²⁴⁵ U.S. Census Bureau, “2007 NAICS Definitions: 519130 Internet Publishing and Broadcasting and Web Search Portals,” <http://www.naics.com/censusfiles/ND519130.HTM>.

²⁴⁶ See 13 C.F.R. § 121.201, NAICS code 519130.

operated for the entire year.²⁴⁷ Of this total, 2,682 firms had employment of 499 or fewer employees, and 23 firms had employment of 500 employees or more.²⁴⁸ Consequently, we estimate that the majority of these firms are small entities that may be affected by rules adopted pursuant to the Order.

94. **Data Processing, Hosting, and Related Services.** Entities in this category “primarily ... provid[e] infrastructure for hosting or data processing services.”²⁴⁹ The SBA has developed a small business size standard for this category; that size standard is \$25 million or less in average annual receipts.²⁵⁰ According to Census Bureau data for 2007, there were 8,060 firms in this category that operated for the entire year.²⁵¹ Of these, 7,744 had annual receipts of under \$24,999,999.²⁵² Consequently, we estimate that the majority of these firms are small entities that may be affected by rules adopted pursuant to the Order. .

95. **All Other Information Services.** The Census Bureau defines this industry as including “establishments primarily engaged in providing other information services (except news syndicates, libraries, archives, Internet publishing and broadcasting, and Web search portals).”²⁵³ Our action pertains to interconnected VoIP services, which could be provided by entities that provide other services such as email, online gaming, web browsing, video conferencing, instant messaging, and other, similar IP-enabled services. The SBA has developed a small business size standard for this category; that size standard is \$7.0 million or less in average annual receipts.²⁵⁴ According to Census Bureau data for 2007, there were 367 firms in this category that operated for the entire year.²⁵⁵ Of these, 334 had annual receipts of under \$5.0 million, and an additional 11 firms had receipts of between \$5 million and \$9,999,999. Consequently, we estimate that the majority of these firms are small entities that may be affected by our action.

D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements

96. This Order has two components, modernization of the Commission’s universal service system and reform of the Commission’s intercarrier compensation mechanism. We summarize below the recordkeeping and other obligations of the accompanying Order. Additional information on each of these requirements can be found in the Order.

97. In the Order, the Commission takes several steps to harmonize and update annual reporting requirements relating to universal service recipients. We extend current reporting requirements

²⁴⁷ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, Table 5, “Establishment and Firm Size: Employment Size of Firms for the United States: 2007 NAICS Code 519130” (issued Nov. 2010).

²⁴⁸ *Id.*

²⁴⁹ U.S. Census Bureau, “2007 NAICS Definitions: 518210 Data Processing, Hosting, and Related Services”, <http://www.census.gov/naics/2007/def/NDEF518.HTM>.

²⁵⁰ *See* 13 C.F.R. § 121.201, NAICS code 518210.

²⁵¹ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, Table 4, “Establishment and Firm Size: Receipts Size of Firms for the United States: 2007 NAICS Code 518210” (issued Nov. 2010).

²⁵² *Id.*

²⁵³ U.S. Census Bureau, “2007 NAICS Definitions: 519190 All Other Information Services”, <http://www.census.gov/naics/2007/def/ND519190.HTM>.

²⁵⁴ *See* 13 C.F.R. § 121.201, NAICS code 519190.

²⁵⁵ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, Table 4, “Establishment and Firm Size: Receipts Size of Firms for the United States: 2007 NAICS Code 519190” (issued Nov. 2010).

for voice service to all ETCs, and we adopt uniform broadband reporting requirements for all ETCs. We also adopt rules requiring the reporting of financial and ownership information to assist our discharge of statutory requirements.²⁵⁶

98. We extend the current federal annual reporting requirements to all ETCs that receive high-cost support, except recipients of only Mobility Fund Phase I support, as a baseline requirement.²⁵⁷ We also revise the Commission's annual reporting and certification requirements and create new requirements applicable to all ETCs that receive high-cost support, except recipients of only Mobility Fund Phase I support, to ensure carriers are complying with public interest obligations, including new broadband-related requirements, and that they are using the funds they receive for the intended purposes. These requirements include reports and certifications concerning deployment, performance requirements, service quality, rates, and financial and ownership information. Included in these requirements is a requirement that recipients of funding test their broadband networks for compliance with speed and latency metrics and certify to and report the results to the Universal Service Administrative Company on an annual basis. These results will be subject to audit.²⁵⁸ We also create new reporting requirements for carriers electing to receive CAF Phase I incremental support. Specifically, carriers will be required to file notices identifying where they will deploy broadband to in connection with their incremental support, and they will be required, as part of their annual filings, to certify that they have met required deployment milestones. Mobility Fund recipients will be required to file annual reports demonstrating the coverage provided with the Mobility Fund support for a period of five years after qualifying for the support. These annual reports must include information such as project descriptions and data from network coverage drive tests.²⁵⁹ We also establish certain reporting requirements for applicants seeking to participate in an auction to bid for Mobility Fund support. These requirements include the disclosure of information such as parties' ownership information and the source of the spectrum they plan to use to meet their Mobility Fund obligations in the particular area(s) for which they plan to bid. Winning bidders who apply for funds awarded through the reverse auction must satisfy additional reporting requirements, including the provision of detailed ownership information. These winning bidders must also provide an irrevocable stand-by Letter of Credit in an amount equal to the amount of Mobility Fund support as it is disbursed. All winning bidders, regardless of criteria such as capitalization level, will be required to meet the Letter of Credit requirement. The Commission concluded that limiting the requirement to bidders below a certain level of capitalization would likely disproportionately burden small business entities, even though small entities are often less able to sustain the additional cost burden of posting financial security while still being able to compete with larger entities.

99. Recognizing that existing five-year build out plans may need to change to account for new broadband obligations adopted in the Order, we require all ETCs to file a new five-year build-out plan in a manner consistent with our rules. ETCs will also be required to include in their annual reports information regarding their progress on this five-year broadband build-out plan beginning April 1, 2014. We require all rate-of-return ETCs receiving support to include a self-certification letter certifying that they are taking reasonable steps to offer broadband service throughout their service area and that requests for such service are met within a reasonable amount of time. We also require all ETCs receiving CAF support in price cap territories based on a forward-looking cost model to include a self-certification letter certifying that they are meeting the interim deployment milestones as set forth under our revised public

²⁵⁶ See *supra* Section VIII.A.2.

²⁵⁷ See *id.*

²⁵⁸ See *supra* Section VI.B.

²⁵⁹ See *supra* Section VII.E.

interest obligations and that they are taking reasonable steps to meet increased speed obligations that will exist for all supported locations before the expiration of the five-year term for CAF Phase II funding.²⁶⁰

100. The rules adopted to address arbitrage practices will affect certain carriers, potentially including small entities. Carriers that meet the definition of access stimulation will generally be required to file revised tariffs to account for the change in the volume of their traffic. Further, the modifications to address phantom traffic will apply to all service providers, including small entities, that originate interstate or intrastate traffic on the PSTN, or that originate inter- or intrastate interconnected VoIP traffic. These measures will require service providers to transmit the telephone number associated with the calling party to the next provider in the call path and intermediate providers to pass calling party number or charge number signaling information they receive from other providers unaltered, to subsequent providers in the call path. Service providers, including small entities, may need to modify some administrative processes relating to their signaling and billing systems as a result of these rule changes.

101. As part of our comprehensive reform of the intercarrier compensation system, we establish a uniform, national transition for default intercarrier compensation rate levels. We set forth two separate transition paths – one for price cap carriers and competitive LECs that benchmark to price cap rates and one for rate-of-return carriers and competitive LECs that benchmark to rate-of-return rates. For the transition of default rates, carriers, including small entities, may be required to adjust their record-keeping, administrative and billing systems, and interstate and intrastate tariff filings in order to effectuate necessary changes to rate levels. At the same time, carriers will remain free to enter into alternative intercarrier compensation agreements.

102. We also adopt a transitional recovery mechanism in order to facilitate incumbent LECs' gradual transition away from existing revenues. The mechanism will allow LECs to partially recover ICC revenues reduced as part of our intercarrier compensation reforms from sources such as reasonable increases to end user charges and, where appropriate, universal service support. As part of our recovery mechanism and to evaluate compliance with the Order and rules, incumbent local exchange carriers electing to participate in the recovery mechanism, including small entities, will be required to file data annually regarding rates, revenues, expenses and demand with the Commission, states, and Universal Service Administrative Company (USAC), as applicable. These data are needed to monitor compliance as well as the impact of the reforms we adopt today and to enable the Commission to resolve the issues teed up in the FNPRM regarding the appropriate transition to bill-and-keep. To minimize any burden, filings will be aggregated at the holding company level when possible, limited to the preceding fiscal year, and will include data carriers must monitor to comply with our recovery mechanism rules. For carriers eligible and electing to receive ICC CAF support, we will ensure that the data filed with USAC is consistent with our request, so that carriers can use the same format for both filings. All such information may be filed under protective order and will be treated as confidential

103. We adopt a prospective intercarrier compensation framework for VoIP traffic. Pursuant to this framework, we allow carriers to tariff default intercarrier compensation charges for toll VoIP-PSTN traffic in the absence of an agreement for different intercarrier compensation. VoIP and other service providers, including small entities, may need to modify or adopt administrative, record-keeping or other processes to implement the new intercarrier compensation framework applicable to VoIP traffic. Service providers may also need to revise their interstate and intrastate tariffs to account for these changes. For interstate toll VoIP-PSTN traffic, the relevant language will be included in a tariff filed with the Commission, and for intrastate toll VoIP-PSTN traffic, the rates may be included in a state tariff.

²⁶⁰ See *supra* Section VIII.A.2.

104. Finally, we clarify that the compensation obligations under section 20.11 of our rules, 47 C.F.R. § 20.11 are coextensive with the reciprocal compensation requirements under 251(b)(5) and we adopt bill-and-keep as the default compensation for non-access traffic exchanged between LECs and CMRS providers. To further ease the move to bill-and-keep LEC-CMRS traffic for rate-of-return carriers, we limit rate-of-return carriers' responsibility for the costs of transport involving non-access traffic exchanged between CMRS providers and rural, rate-of-return regulated LECs. In addition, as described above, we make clarifications surrounding the intraMTA rule. As a result of these actions, service providers, including small entities, may need to modify some of their processes surrounding the billing and collection of intercarrier compensation.

E. Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered

105. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its approach, which may include the following four alternatives, among others: (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.²⁶¹

1. Universal Service

106. The Commission is aware that some of the universal service proposals under consideration may impact small entities. The Commission held meetings with small carriers that operate in the most rural areas of the nation and considered the economic impact on small entities, as identified in comments filed in response to the *USF/ICC Transformation NPRM* and the *Mobility Fund NPRM*, in reaching its final conclusions and taking action in this proceeding. In addition, the Commission held a workshop in Nebraska in order to hear directly from small companies serving rural America. The Commission also held various meetings in Alaska and other rural areas, including those in South Dakota.

107. The Commission recognizes that, in the absence of any federal mandate to provide broadband, rate-of-return carriers have been deploying broadband to millions of rural Americans, often with support from a combination of loans from lenders and ongoing universal service support. Rather than establishing a mandatory requirement to deploy broadband-capable facilities to all locations within their service territory, we continue to offer a more flexible approach for these smaller carriers. They will be required to provide their customers with at least the same initial minimum level of broadband service as those carriers who receive model-based support, but given their size, we determine that they should be provided more flexibility in how they make incremental progress in edging out their broadband-capable networks in response to consumer demand; we do not adopt nor impose intermediate build-out milestones. The broadband deployment obligation we adopt is similar to the voice deployment obligations many of these carriers are subject to today.²⁶²

108. The Commission also considered the economical impact on smaller rate-of-return carriers. Although they serve a smaller portion of access lines in the U.S, smaller rate-of-return carriers operate in many of the most difficult and expensive areas to serve. Recognizing the economic challenges of extending service in the high-cost areas of the country served by rate-of-return carriers, especially smaller carriers, our flexible approach does not require rate-of-return carriers to extend service to customers absent a reasonable request by customers. In addition, we also do not specifically shift these

²⁶¹ 5 U.S.C. § 603.

²⁶² See *supra*, Section VII.D.2.

smaller rate-of-return carriers from current support mechanisms or shift them to a model or reverse auction mechanism because we realize that these smaller rate-of-return carriers are indeed unique.

109. Many small carriers operating in more remote rural areas have argued that universal service support provides a significant share of their revenues, and thus sudden changes in the current support mechanisms could have a significant impact on their operations. The reforms we adopt today are interim steps that are necessary to allow these rate-of-return carriers to continue receiving support based on existing mechanisms for the time being, but also begins the process of transitioning carriers to a more incentive-based form of regulation.²⁶³

110. The Commission further recognizes that the existing regulatory structure and competitive trends places many small carriers under financial strain and inhibits the ability of these providers to raise capital. We take a number of important steps to enhance the sustainability of the universal service mechanism in the Order and are careful to implement these changes in a gradual manner so that our efforts do not jeopardize investments made consistent with existing rules. Our goal is to ensure the continued availability and affordability of offerings in the rural and remote communities served by many of these smaller carriers. We provide rate-of-return carriers the predictability of remaining under the legacy universal service system in the near-term, while giving notice that we intend to transition to more incentive-based regulation in the near future. We believe that this approach will provide a more stable base going forward for these carriers and the communities they serve. Today's package of universal service reforms is targeted at eliminating inefficiencies and closing gaps in our system, not at making indiscriminate industry-wide reductions.²⁶⁴

111. The Commission also considered the significant economic impact of the CAF Phase I incremental support mechanism on small entities. Most price cap carriers that may receive support under the mechanism are not small. To the extent small carriers elect to receive incremental support, there are additional obligations on such carriers. However, the Commission believes that the burdens associated with meeting these obligations are outweighed by the support provided to meet those obligations, as well as the accompanying public benefits. Carriers may also decline to receive incremental support, and the obligations associated with such support, by filing a notice to that effect.

112. The Commission considered the significant economic impact of eliminating the identical support rule on small entities. Small entities here impacted include small competitive ETCs that receive high-cost universal service support pursuant to the identical support rule. Although retaining the identical support rule may have minimized the significant economic impact for some small competitive ETCs, the Commission concluded that the rule did not efficiently or effectively promote the Commission's universal service goals, including the deployment of mobile services. The Commission did, however, minimize the significant economic impact on small entities by phasing down support over a period of five years, by which time support will be available for many small entities pursuant to Mobility Fund Phase II, Tribal Mobility Fund Phase II, and CAF Phase II. We note that Tribal Mobility Fund Phase II will provide a dedicated form of support for areas that historically have been served by small entities.

113. Further, the Commission took steps to minimize significant economic impacts by automatically pausing the phase-down of support received pursuant to the identical support rule if the Mobility Fund Phase II or, for some small entities, Tribal Mobility Fund Phase II is not operational by June 30, 2014. In addition, the Commission delayed the phase-down for certain carriers serving remote parts of Alaska and a Tribally-owned competitive ETC, Standing Rock Telecommunications, that received its ETC designation in 2011. In the Commission's consideration, these small entities are

²⁶³ See *supra*, Section VII.D.1.

²⁶⁴ See *supra*, Section VII.D.10.

potentially subject to significant economic impact as a result of an immediate commencement of the phase-down and the delayed phase-down will minimize the impact.

114. The Order harmonizes and updates the Commission's Universal Service reporting requirements, extending current requirements for voice service to all ETCs. This extension of the reporting requirements will benefit the public interest. The Order seeks to minimize reporting burdens where possible by requiring certifications rather than data collections and by permitting the use of reports already filed with other government agencies, rather than requiring the production of new ones. The Order extends the record retention requirement from a period of five to ten years for purposes of litigation under the False Claims Act. The Commission believes that any burdens that may be associated with these requirements is outweighed by the accompanying public benefits.

2. Intercarrier Compensation

115. As a general matter, our actions in the accompanying Order should benefit all service providers, including small entities, by facilitating the exchange of traffic and providing greater regulatory certainty and reduced litigation costs. In the *USF/ICC Transformation NPRM*, we encouraged small entities to bring to the Commission's attention any specific concerns that they had, including on any issues or measures that may apply to small entities in a unique fashion.²⁶⁵ As described below, in many cases, including for transition paths, recovery, and for certain reporting requirements, we sought to tailor the impact of our reforms to the needs of small entities. In other cases, however, we did not identify any feasible alternatives that would have lessened the economic impact on small entities while achieving the vital reform of the intercarrier compensation system.

116. We considered a range of alternative proposals in regard to our rules designed to address access stimulation.²⁶⁶ As detailed in the Order,²⁶⁷ in response to the record, we found it appropriate to include a traffic measurement condition in the definition of access stimulation. Unlike some proposals in the record, however, as part of this measurement condition, we do not require all LECs, including small entities, to file traffic reports. Instead, we allow carriers paying switched access charges to observe and file complaints based on their own traffic patterns. We concluded that this approach is less burdensome to all LECs, including small entities, than a system that would require all LECs to file traffic reports, as some proposed in the record.²⁶⁸ Similarly, we also rejected the use of alternative definitional triggers for access stimulation, such as per line MOU limits, in part, to avoid the creation of new self-reporting requirements that could prove burdensome to carriers, including small entities. Finally, our access stimulation rules respond to a concern raised by the Louisiana Small Carrier Committee. Specifically, if a carrier terminates its access revenue sharing agreement before the date on which it would be required to file a revised tariff, then that carrier will not be required to file a revised tariff. This will serve to eliminate any potential to burden such carriers when there is no reason to do so.

117. In the Order, we set forth default transition paths for terminating end office switching and certain transport rate elements as part of the transition to a bill-and-keep framework.²⁶⁹ In adopting these default paths, we take into account the unique concerns facing small entities, including many rate-of-return LECs as well as entities that operate in rate-of-return service areas. Accordingly, we set forth a six-year transition for price cap carriers and competitive LECs that benchmark to price cap rates. We

²⁶⁵ See *USF/ICC Transformation NPRM*, 26 FCC Rcd at 4827-28, App E paras. 78-84.

²⁶⁶ See *supra* Section XI.A.

²⁶⁷ See *supra* Section XI.A.

²⁶⁸ See *supra* Section XI.A.

²⁶⁹ See *supra* Section XII.C.

adopt a longer nine-year transition for rate-of-return carriers and competitive LECs that benchmark to rate-of-return carrier rates. We found that additional time for rate-of-return carriers and those that benchmark to their rates recognizes the often higher rates of and circumstances unique to these carriers. The longer transition also provides them with a predictable glide path and appropriately balances any adverse impact that could arise from moving carriers too quickly from the existing intercarrier compensation system.

118. The Order establishes a transitional recovery mechanism to help transition incumbent LECs away from existing revenues, but tailored by type of carrier.²⁷⁰ To this end, we set forth different methodologies for the calculation of Eligible Recovery for price cap carriers and rate-of-return carriers. As we describe in the Order,²⁷¹ for price cap carriers, our recovery mechanism will allow them to determine at the outset exactly how much their Eligible Recovery will be each year. For rate-of-return carriers, we adopt a recovery mechanism that provides more certainty and predictability than exists today and rewards carriers for efficiencies achieved in switching costs. Rate-of-return carriers will be able to determine their total intercarrier compensation and recovery revenues for all transitioned elements, for each year of the transition. We find that providing this greater degree of certainty for rate-of-return carriers, which are generally smaller and less able to respond to changes in market conditions than price cap carriers, is necessary to provide a reasonable transition from the existing intercarrier compensation system. And, we further tailor the obligations for broadband deployment applicable to rate-of-return and price cap carriers as well as the phase out period applicable to each for the receipt of CAF support. Whereas the phase out of CAF support for price cap carriers will be three years beginning in 2017, ICC CAF support for smaller rate-of-return carriers will phase down as Eligible Revenue decreases over time, but not be subject to other reductions. In addition, as we note above,²⁷² we establish a presumption that our reforms allow incumbent LECs to earn a reasonable return on investment, but at the same time establish a “Total Costs and Earnings Review” through which a carrier may petition the Commission to rebut this presumption. This will ensure that individual carriers, including small entities, are able to seek additional recovery to prevent a taking, where necessary. For competitive LECs, which are not subject to the Commission’s end user rate regulations and have greater freedom to set rates and determine which customer to serve, CAF support will not be available for recovery. Competitive LECs may recover lost intercarrier compensation revenues through their end user charges.

119. Above all, our tailored approach to transitional recovery is designed to balance the different circumstances facing the different carrier types and provide all carriers with necessary predictability, certainty and stability to transition from the current intercarrier compensation system. With regard to small carriers in particular, our transitional recovery mechanism includes an assortment of measures to moderate the impact of our reforms on small carriers and provide such carriers with certainty and predictability with regard to their recovery.

120. With respect to the prospective VoIP traffic, we believe that the VoIP-PSTN intercarrier compensation framework that we adopt best balances the policy considerations of providing certainty regarding prospective intercarrier compensation obligations for VoIP-PSTN traffic, while acknowledging the flaws with the current intercarrier compensation regimes. With regard to the scope of our reform, as intercarrier disputes have encompassed all forms of what we define as VoIP-PSTN traffic, including “one-way” VoIP services, we believe addressing this traffic comprehensively will help guard against new forms of arbitrage. As part of our reform, we adopt transitional rules that will specify, prospectively, the default compensation for VoIP-PSTN traffic. We reject approaches, including an immediate adoption of

²⁷⁰ See *supra* Section XIII.

²⁷¹ See *supra* Section XIII.

²⁷² See *supra* Section XIII.

a bill-and-keep methodology for VoIP traffic or to delay reform of VoIP traffic to a future point on the glide path. Instead, the framework that we adopt in the Order will provide greater certainty to service providers, including small entities, regarding intercarrier compensation revenue and reduce intercarrier compensation disputes. Our transitional VoIP-PSTN intercarrier compensation framework provides the opportunity for some revenues in conjunction with other appropriate recovery opportunities adopted as part of comprehensive intercarrier compensation and universal service reform. We rely on existing mechanisms, including tariffs to implement our approach. Carriers may tariff charges at rates equal to interstate access rates for toll VoIP-PSTN traffic in federal or state tariffs, though remain free to negotiate interconnection agreements specifying alternative compensation for that traffic. This prospective regime facilitates the benefits that can arise from negotiated agreements, without sacrificing the revenue predictability traditionally associated with tariffing regimes. In contrast to proposals to require certifications regarding carriers' reported VoIP-PSTN traffic,²⁷³ we also provide all carriers, including small entities, with tools to use in their tariffs to help distinguish VoIP-PSTN traffic. The transitional regime for VoIP-PSTN intercarrier compensation, which allows LECs to tariff charges, also mitigates the concerns of some commenters regarding disparate leverage that may exist in interconnection negotiations.²⁷⁴

121. Finally, with respect to our reforms applicable to intercarrier compensation for wireless traffic, we note that our decision to treat "reasonable compensation" requirements under section 20.11, 47 C.F.R. § 20.11, as coextensive with the scope of reciprocal compensation requirements under section 251(b)(5) of the Act. We also find it in the public interest to set a default pricing methodology of bill-and-keep for LEC-CMRS intraMTA traffic, which shall reduce growing confusion and litigation for these carriers. This action presents a smaller risk of market disruption than would an immediate shift to bill-and-keep more generally and our recovery mechanism provides incumbent LECs with a stable, predictable recovery for reduced intercarrier compensation revenues and we further limit rate-of-return carriers' responsibility for the costs of transport involving non-access traffic exchange between CMRS providers and rural, rate-of-return LECs.

F. Report to Congress

122. The Commission will send a copy of the Order, including this FRFA, in a report to be sent to Congress and the Government Accountability Office pursuant to the Small Business Regulatory Enforcement Fairness Act of 1996.²⁷⁵ In addition, the Commission will send a copy of the Order, including the FRFA, to the Chief Counsel for Advocacy of the Small Business Administration. A copy of the Order and FRFA (or summaries thereof) will also be published in the Federal Register.²⁷⁶

²⁷³ See *supra* Section XIV.

²⁷⁴ See *supra* Section XV.

²⁷⁵ 5 U.S.C. § 801(a)(1)(A).

²⁷⁶ See *id.* § 604(b).

APPENDIX P

Initial Regulatory Flexibility Act Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),¹ the Commission has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in this FNPRM. Written comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the FNPRM. The Commission will send a copy of the FNPRM, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).² In addition, the FNPRM and IRFA (or summaries thereof) will be published in the Federal Register.³

A. Need for, and Objectives of, the Proposed Rules

2. The FNPRM seeks comment on a variety of issues relating to comprehensive reform of universal service and intercarrier compensation. As discussed in the Order accompanying the FNPRM, the Commission believes that such reform will eliminate waste and inefficiency while modernizing and reorienting these programs on a fiscally responsible path to extending the benefits of broadband throughout America. Bringing robust, affordable broadband to all Americans is the infrastructure challenge of the 21st century. To allow the Commission to help meet this challenge, the FNPRM asks for comment in a number of specific areas.

1. Universal Service

3. First, for providers receiving Connect America Fund (CAF) support, the FNPRM seeks further comment on what public interest obligations should apply to the receipt of these funds.⁴ How should broadband service be measured, and how should “reasonable comparability” be determined for fixed and mobile voice and broadband services.⁵

4. The FNPRM also seeks comment on several proposed additional requirements, including whether the Commission should require CAF recipients to offer IP-to-IP interconnection for voice service, beyond whatever framework it adopts more broadly, whether CAF recipients be required to make interconnection points and backhaul capacity available so that unserved high-cost communities could deploy their own broadband networks, and whether the Commission should create a fund for a Technology Opportunities Program in order to assist communities with deploying their own broadband networks.

5. In the Order, the Commission concludes that high-cost support received by incumbent rate-of-return carriers should be phased out over five years in study areas where an unsubsidized facilities-based provider offers voice and broadband services meeting the specified public interest

¹ See 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. §§ 601–612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

² See 5 U.S.C. § 603(a).

³ See *id.*

⁴ See *supra* Section XVII.A.

⁵ See *supra* Section XVII.A.2.

obligations.⁶ The FNPRM seeks comment on the specific methodology that should be used to identify those areas, including the appropriateness of the preliminary analysis staff performed.⁷

6. The Commission also begins a prescription of the authorized interstate rate of return,⁸ and the FNPRM asks parties to identify what data the Commission should collect to complete the prescription, the current applicability of the formulas contained in the Commission's rules for performing necessary calculations, as well as whether the remaining Regional Bell Operating Companies (RBOCs) or some other group of carriers should be used as a surrogate for incumbent local exchange carriers (ILECs) that do not issue stock or borrow money solely to support interstate services.⁹

7. In the Order, the Commission adopts a rule to use benchmarks for reasonable costs to impose limits on reimbursable capital and operating costs for high-cost loop support received by rate-of-return companies, and concludes that it should also impose limits on reimbursable capital and operating costs for interstate common line support received by rate-of-return companies. In the FNPRM, the Commission seeks comments on a specific methodology for calculating individual company caps for HCLS set forth in Appendix H, and seeks comment on how specifically to implement such a limit for ICLS.

8. In response to the *USF/ICC Transformation NPRM*, several associations representing rural ILECs (Rural Associations) proposed the creation of a new broadband-focused CAF mechanism that ultimately would entirely replace existing support mechanisms for rate-of-return carriers. Subsequently, the Rural Associations provided draft rules that provide additional context regarding the operation of their proposed CAF. In the FNPRM, we seek comment on this proposal and ask whether and how it could be modified consistent with the framework adopted in the Order to provide a path forward for rate-of-return or carriers to invest in extending broadband to unserved areas.¹⁰

9. In the FNPRM, the Commission proposes that a recipient of high-cost and CAF support should be required to post financial security as a condition to receiving support to ensure that it has committed sufficient financial resources to complying with its public interest obligations under the Commission's rules.¹¹ For example, should an irrevocable standby letter of credit be required, and if so, for what amount?¹² Further, the FNPRM seeks comment on what penalties might be appropriate for failure to meet build-out requirements, service quality standards, or failure to provide information to verify continuing eligibility to receive support.¹³

10. The CAF will target funding to areas where federal support is needed to maintain and expand modern networks capable of delivering broadband and voice services. In the FNPRM, aiming to ensure that obligations and funding are appropriately matched while avoiding consumer disruption in access to communications services, we seek comment on what Commission action may be appropriate to adjust existing service obligations for eligible telecommunications carriers (ETCs) as funding shifts to

⁶ See *supra* Section VII.D.2.

⁷ See *supra* Section XVII.D.

⁸ See *supra* Section XVII.C.

⁹ See *supra* Section XVII.C.

¹⁰ See *supra* Section XVII.B.

¹¹ See *supra* Section XVII.G.

¹² See *id.*

¹³ See *id.*

new, more targeted support mechanisms.¹⁴

11. The FNPRM describes the Phase II of the Mobility Fund, which will provide ongoing support for mobile broadband and high quality voice-grade services.¹⁵ The Commission seeks comment on the overall design for this phase of the Mobility Fund, including the use of reverse auctions, or the possible use of a model.¹⁶ Funding in the second phase of the Mobility Fund is intended for geographic areas where there is no private sector business case to provide mobile broadband and high quality voice-grade services. Comment is sought on how best to: (1) identify these areas; (2) establish bidding and coverage units; (3) maximize consumer benefits; (4) establish the term of support; (5) identify provider eligibility requirements; and (6) set public interest obligations.¹⁷

12. The FNPRM next proposes general auction rules for Phase II of the Mobility Fund to govern the initial auction process, including options for basic auction design, application procedures, permissible communications and public disclosure of auction-related information, auction defaults, and auction suspension or cancellation.¹⁸ The FNPRM reaffirms the Commission's commitment to address Tribal needs and seeks comment on how ongoing universal service support for mobile advanced services could be tailored to meet the needs in Tribal lands.¹⁹ The Commission seeks comment on the adoption for Mobility Fund Phase II of two bidding mechanisms intended to promote greater service on Tribal lands: a bidding credit for Tribally-owned or controlled entities and a mechanism that would allocate a specified number of "priority units" to particular unserved geographic areas within Tribal lands that would reduce the per-unit amount of bids covering those unserved areas. The Commission also seeks comment on the adoption of a small business bidding preference and the small business definition that should apply if it adopts such a bidding preference. In addition, comment is sought on accountability and oversight rules applicable to the second phase of the Mobility Fund.²⁰ Finally, the FNPRM seeks comment on the use of an economic model to determine support for mobile wireless providers rather than competitive bidding, including possible model design and potential changes to the proposed framework for mobility support that could be necessary if support is determined using a model.²¹

13. In the Order, the Commission adopts a framework for USF support in areas served by price cap carriers where support will be determined using a combination of a forward-looking broadband cost model and competitive bidding. The FNPRM addresses proposals for this competitive bidding process, where applicable. Comment is sought on: (1) the use of a forward looking engineering cost model to identify areas eligible for competitive bidding; (2) establishing bidding and coverage units; (3) maximizing consumer benefits; (4) establishing the term of support; (5) identifying provider eligibility requirements; and (6) setting public interest obligations.²²

14. The FNPRM next proposes general auction rules governing the auction process, including options for basic auction design, application procedures, permissible communications and

¹⁴ See *supra* Section XVII.F.

¹⁵ See *supra* Section XVII.I.

¹⁶ See *supra* Section XVII.I.1.

¹⁷ See *supra* Section XVII.I.2.

¹⁸ See *supra* Section XVII.I.3.

¹⁹ See *supra* Section XVII.I.4.

²⁰ See *supra* Section XVII.I.5.

²¹ See *supra* Section XVII.I.6.

²² See *supra* Section XVII.I.2.

public disclosure of auction-related information, auction defaults, and auction suspension or cancellation.²³ The FNPRM also seeks comment on whether to establish special provisions to help ensure service in Tribal lands.²⁴ The FNPRM seeks comment on the adoption for the competitive bidding process of a bidding credit for Tribally-owned or controlled entities and a Tribal priority units mechanism along the same lines proposed for Phase II of the Tribal Mobility Fund.²⁵ The Commission also seeks comment on the adoption of a small business bidding preference and the small business definition that should apply if it adopts such a bidding preference.²⁶ In addition, comment is sought on accountability and oversight rules that would apply to recipients of CAF support awarded through a competitive bidding process.²⁷

15. In establishing a new Remote Areas Fund (RAF), the budget of which will be at least \$100 million, the Order addresses the Commission's commitment to ensure that the less than one percent of Americans living in areas where the cost of deploying traditional terrestrial broadband networks is extremely high can obtain affordable broadband through other technology platforms.²⁸ The FNPRM seeks comment on how RAF support should be provided and how the program should be implemented.²⁹ Comment is sought on how to: (1) identify geographic areas eligible for support; (2) establish bidding and coverage units; (3) maximize consumer benefits; (4) establish the term of support; (5) identify provider eligibility requirements; and (6) set public interest requirements.³⁰ In addition, the FNPRM seeks comment on how best to structure the RAF general implementation issues, provider qualifications, and public interest obligations, such as service performance criteria and pricing. The FNPRM also seeks comment on related matters like portable consumer subsidy issues and service terms and conditions. In addition, the FNPRM requests comment on several auction approaches to target CAF funding in extremely high cost areas and general auction rules for an auction process, including options for basic auction design and for the auction and post-auction processes, as well as eligibility, accountability, and oversight issues.³¹ The FNPRM also seeks comment on the adoption of a bidding preference for small businesses if competitive bidding is used to provide support from the RAF and the size of any small business bidding credit should the Commission adopt one. The Commission seeks comment on the small business definition that should apply if it adopts such a small business preference for remote area support auctions.

2. Intercarrier Compensation

16. The Order adopts a bill-and-keep methodology as the default end state for all intercarrier compensation traffic.³² Although the Order specifies the transition for certain terminating access rates and caps all interstate and most intrastate charges, it does adopt a transition to a bill-and-keep methodology for all ICC rates, including originating switched access, and certain transport rate elements.

²³ See *supra* Section XVII.I.3.

²⁴ See *supra* Section XVII.I.4.

²⁵ See *supra* Section XVII.I.3.

²⁶ See *supra* para. XVII. 4.

²⁷ See *supra* para. XVIII.I.5.

²⁸ See *supra* para. XVII.F.

²⁹ See *supra* para. XVII.K.1.

³⁰ See *supra* para. XVII.K.II.

³¹ See *supra* para. XVII.K.6.

³² See *supra* para. 1297.

The FNPRM seeks comment on the appropriate transition to bill-and-keep for those rate elements not reduced in the Order, and asks what recovery, if any, should be provided.³³ The FNPRM also asks whether Commission action is necessary to address concerns that have been raised regarding transit services,³⁴ and are other charges implicated by the transition to bill-and-keep?³⁵

17. The FNPRM seeks comment on any interconnection and related issues that must be addressed to implement bill-and-keep in an efficient and equitable manner.³⁶ Specifically, comment is sought on points of interconnection, how they are established, what if anything, the Commission should do going forward, and the continued relevance of points of interconnection in a bill-and-keep regime.³⁷ Likewise, comment is sought on defining the “network edge,” the point where bill-and-keep applies and the point to which a provider is responsible for delivering its traffic to another provider.³⁸ Comment is also sought on the role of tariffs and interconnection agreements for structuring intercarrier relationships moving forward, including the feasibility of extending our interconnection rules to all telecommunications carriers, including competitive LECs and IXC,³⁹ and asks questions about commenters’ concerns about potential arbitrage that might occur under a bill-and-keep methodology.⁴⁰

18. The FNPRM also seeks comment on the recovery mechanism adopted in the Order, as well as the pre-existing rules regarding subscriber line charges (SLCs).⁴¹ With respect to the recovery adopted in the Order, comment is sought about the elimination of the access replacement charge (ARC) at a date certain and, if so, when.⁴² The FNPRM also asks about modifying the baseline for recovery for rate-of-return carriers by, for example, increasing the percentage of reduction each year and also alternative approaches to the use of true-ups in calculating recovery for rate-of-return carriers.⁴³ And, the FNPRM asks if ICC CAF support for rate-of-return carriers should be subject to a defined phase-out?⁴⁴ In addition, parties are asked to comment on existing SLCs, which are not addressed in this Order. In particular, the FNPRM asks about the appropriate cap for these charges, the long-term role, if any, for SLCs as carriers move to IP networks, and what, if anything, the Commission should do about how carriers advertise SLCs and ARCs.⁴⁵

19. The FNPRM seeks comment on a number of issues regarding IP-to-IP interconnection in light of the Commission’s goal of facilitating industry progression to all-IP networks.⁴⁶ In particular, the

³³ See *supra* Section XVII.M.

³⁴ See *supra* paras. 1311-1313.

³⁵ See *supra* para. 1314.

³⁶ See *supra* Section XVII.N.

³⁷ See *supra* paras. 1316-1319.

³⁸ See *supra* paras. 1320-1321.

³⁹ See *supra* paras. 1322-1324.

⁴⁰ See *supra* para. 1325.

⁴¹ See *supra* Section XVII.O.

⁴² See *supra* para. 1327.

⁴³ See *id.*

⁴⁴ See *id.*

⁴⁵ See *supra* para. 1333.

⁴⁶ See *supra* Section XVII.P.

FNPRM seeks comments on implementation of the Order's statement that the Commission expects that all carriers will negotiate in good faith for IP-to-IP interconnection arrangements for the exchange of voice traffic, as well as associated implementation and enforcement.⁴⁷ The FNPRM seeks comment on the appropriate statutory authority for our expectation of good faith negotiations, and other possible regulatory authority for the Commission to adopt a policy framework governing IP-to-IP interconnection.⁴⁸ In addition, if the Commission addresses IP-to-IP interconnection through a statutory framework historically applied to TDM traffic, the FNPRM seeks comment on whether any resulting changes will be required to the application of those historical TDM interconnection requirements, either through rule changes or forbearance.⁴⁹

20. Comment is also sought on the scope of the traffic exchange that should be encompassed by any IP-to-IP interconnection policy framework to avoid intervention in areas where the market will operate efficiently.⁵⁰ The FNPRM seeks comment on the appropriate role for the Commission regarding IP-to-IP interconnection and seeks specific comment on certain proposed policy frameworks, including the policy merits of each approach, and associated implementation issues,⁵¹ including any forbearance from statutory requirements that would be needed to implement the particular framework for IP-to-IP interconnection.⁵²

21. The FNPRM asks whether call signaling rules are needed for one-way VoIP providers, and if so, what they should be and how they should apply.⁵³ And finally, parties are asked to comment on any conflicts or inconsistencies they believe are present as a result of the new rules adopted in the Order, either conflicts or inconsistencies within the new rules or between the new rules and existing Commission rules.⁵⁴

B. Legal Basis

22. The legal basis for any action that may be taken pursuant to the FNPRM is contained in sections 1, 2, 4(i), 201-205, 214, 218-220, 251, 252, 254, 256, 303(r), 332, 403, and 706 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152, 154(i), 201-205, 214, 218-220, 251, 252, 254, 256, 303(r), 332, 403, and 706, and sections 1.1 and 1.1421 of the Commission's rules, 47 C.F.R. §§ 1.1, 1.421.

C. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply

23. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.⁵⁵ The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small

⁴⁷ See *supra* para. 1334.

⁴⁸ See *supra* paras. 1340-1341.

⁴⁹ See *supra* paras. 1338-1339.

⁵⁰ See *supra* Section XVII.P.2.

⁵¹ See *supra* Section XVII.P.4.

⁵² See *supra* para. 1379.

⁵³ See *supra* Section XVII.Q.

⁵⁴ See *supra* Section XVII.R.

⁵⁵ See 5 U.S.C. § 603(b)(3).

organization,” and “small governmental jurisdiction.”⁵⁶ In addition, the term “small business” has the same meaning as the term “small-business concern” under the Small Business Act.⁵⁷ A small-business concern” is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.⁵⁸

24. **Small Businesses.** Nationwide, there are a total of approximately 27.5 million small businesses, according to the SBA.⁵⁹

25. **Wired Telecommunications Carriers.** The SBA has developed a small business size standard for Wired Telecommunications Carriers, which consists of all such companies having 1,500 or fewer employees.⁶⁰ According to Census Bureau data for 2007, there were 3,188 firms in this category, total, that operated for the entire year.⁶¹ Of this total, 3144 firms had employment of 999 or fewer employees, and 44 firms had employment of 1000 employees or more.⁶² Thus, under this size standard, the majority of firms can be considered small.

26. **Local Exchange Carriers (LECs).** Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to local exchange services. The closest applicable size standard under SBA rules is for Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁶³ According to Commission data, 1,307 carriers reported that they were incumbent local exchange service providers.⁶⁴ Of these 1,307 carriers, an estimated 1,006 have 1,500 or fewer employees and 301 have more than 1,500 employees.⁶⁵ Consequently, the Commission estimates that most providers of local exchange service are small entities that may be affected by the rules and policies proposed in the FNPRM.

27. **Incumbent Local Exchange Carriers (incumbent LECs).** Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to incumbent local exchange services. The closest applicable size standard under SBA rules is for Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁶⁶ According to Commission data, 1,307 carriers reported that they were incumbent local

⁵⁶ See 5 U.S.C. § 601(6).

⁵⁷ See 5 U.S.C. § 601(3) (incorporating by reference the definition of “small-business concern” in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.”

⁵⁸ See 15 U.S.C. § 632.

⁵⁹ See SBA, Office of Advocacy, “Frequently Asked Questions,” <http://www.sba.gov/advo/stats/sbfaq.pdf> (accessed Dec. 2010).

⁶⁰ 13 C.F.R. § 121.201, NAICS code 517110.

⁶¹ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, Table 5, “Establishment and Firm Size: Employment Size of Firms for the United States: 2007 NAICS Code 517110” (issued Nov. 2010).

⁶² See *id.*

⁶³ 13 C.F.R. § 121.201, NAICS code 517110.

⁶⁴ See *Trends in Telephone Service*, Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division at Table 5.3 (Sept. 2010) (*Trends in Telephone Service*).

⁶⁵ See *id.*

⁶⁶ See 13 C.F.R. § 121.201, NAICS code 517110.

exchange service providers.⁶⁷ Of these 1,307 carriers, an estimated 1,006 have 1,500 or fewer employees and 301 have more than 1,500 employees.⁶⁸ Consequently, the Commission estimates that most providers of incumbent local exchange service are small businesses that may be affected by rules adopted pursuant to the FNPRM.

28. We have included small incumbent LECs in this present RFA analysis. As noted above, a “small business” under the RFA is one that, *inter alia*, meets the pertinent small business size standard (e.g., a telephone communications business having 1,500 or fewer employees), and “is not dominant in its field of operation.”⁶⁹ The SBA’s Office of Advocacy contends that, for RFA purposes, small incumbent LECs are not dominant in their field of operation because any such dominance is not “national” in scope.⁷⁰ We have therefore included small incumbent LECs in this RFA analysis, although we emphasize that this RFA action has no effect on Commission analyses and determinations in other, non-RFA contexts.

29. **Competitive Local Exchange Carriers (competitive LECs), Competitive Access Providers (CAPs), Shared-Tenant Service Providers, and Other Local Service Providers.** Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁷¹ According to Commission data, 1,442 carriers reported that they were engaged in the provision of either competitive local exchange services or competitive access provider services.⁷² Of these 1,442 carriers, an estimated 1,256 have 1,500 or fewer employees and 186 have more than 1,500 employees.⁷³ In addition, 17 carriers have reported that they are Shared-Tenant Service Providers, and all 17 are estimated to have 1,500 or fewer employees.⁷⁴ In addition, 72 carriers have reported that they are Other Local Service Providers.⁷⁵ Of the 72, seventy have 1,500 or fewer employees and two have more than 1,500 employees.⁷⁶ Consequently, the Commission estimates that most providers of competitive local exchange service, competitive access providers, Shared-Tenant Service Providers, and Other Local Service Providers are small entities that may be affected by rules adopted pursuant to the FNPRM.

30. **Interexchange Carriers (IXCs).** Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to interexchange services. The closest applicable size standard under SBA rules is for Wired Telecommunications Carriers. Under that size

⁶⁷ See *Trends in Telephone Service* at Table 5.3.

⁶⁸ See *id.*

⁶⁹ 5 U.S.C. § 601(3).

⁷⁰ See Letter from Jere W. Glover, Chief Counsel for Advocacy, SBA, to William E. Kennard, Chairman, FCC (May 27, 1999). The Small Business Act contains a definition of “small business concern,” which the RFA incorporates into its own definition of “small business.” See 15 U.S.C. § 632(a); see also 5 U.S.C. § 601(3). SBA regulations interpret “small business concern” to include the concept of dominance on a national basis. See 13 C.F.R. § 121.102(b).

⁷¹ See 13 C.F.R. § 121.201, NAICS code 517110.

⁷² See *Trends in Telephone Service* at Table 5.3.

⁷³ See *id.*

⁷⁴ See *id.*

⁷⁵ See *id.*

⁷⁶ See *id.*

standard, such a business is small if it has 1,500 or fewer employees.⁷⁷ According to Commission data, 359 companies reported that their primary telecommunications service activity was the provision of interexchange services.⁷⁸ Of these 359 companies, an estimated 317 have 1,500 or fewer employees and 42 have more than 1,500 employees.⁷⁹ Consequently, the Commission estimates that the majority of interexchange service providers are small entities that may be affected by rules adopted pursuant to the FNPRM.

31. **Prepaid Calling Card Providers.** Neither the Commission nor the SBA has developed a small business size standard specifically for prepaid calling card providers. The appropriate size standard under SBA rules is for the category Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁸⁰ According to Commission data, 193 carriers have reported that they are engaged in the provision of prepaid calling cards.⁸¹ Of these, an estimated all 193 have 1,500 or fewer employees and none have more than 1,500 employees.⁸² Consequently, the Commission estimates that the majority of prepaid calling card providers are small entities that may be affected by rules adopted pursuant to the FNPRM.

32. **Local Resellers.** The SBA has developed a small business size standard for the category of Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁸³ According to Commission data, 213 carriers have reported that they are engaged in the provision of local resale services.⁸⁴ Of these, an estimated 211 have 1,500 or fewer employees and two have more than 1,500 employees.⁸⁵ Consequently, the Commission estimates that the majority of local resellers are small entities that may be affected by rules adopted pursuant to the FNPRM.

33. **Toll Resellers.** The SBA has developed a small business size standard for the category of Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁸⁶ According to Commission data, 881 carriers have reported that they are engaged in the provision of toll resale services.⁸⁷ Of these, an estimated 857 have 1,500 or fewer employees and 24 have more than 1,500 employees.⁸⁸ Consequently, the Commission estimates that the majority of toll resellers are small entities that may be affected by rules adopted pursuant to the FNPRM.

34. **Other Toll Carriers.** Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to Other Toll Carriers. This category includes toll carriers that do not fall within the categories of interexchange carriers, operator service providers, prepaid

⁷⁷ See 13 C.F.R. § 121.201, NAICS code 517110.

⁷⁸ See *Trends in Telephone Service* at Table 5.3.

⁷⁹ See *id.*

⁸⁰ See 13 C.F.R. § 121.201, NAICS code 517911.

⁸¹ See *Trends in Telephone Service* at Table 5.3.

⁸² See *id.*

⁸³ See 13 C.F.R. § 121.201, NAICS code 517911.

⁸⁴ See *Trends in Telephone Service* at Table 5.3.

⁸⁵ See *id.*

⁸⁶ See 13 C.F.R. § 121.201, NAICS code 517911.

⁸⁷ See *Trends in Telephone Service* at Table 5.3.

⁸⁸ See *id.*

calling card providers, satellite service carriers, or toll resellers. The closest applicable size standard under SBA rules is for Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁸⁹ According to Commission data, 284 companies reported that their primary telecommunications service activity was the provision of other toll carriage.⁹⁰ Of these, an estimated 279 have 1,500 or fewer employees and five have more than 1,500 employees.⁹¹ Consequently, the Commission estimates that most Other Toll Carriers are small entities that may be affected by the rules and policies adopted pursuant to the FNPRM.

35. **800 and 800-Like Service Subscribers.**⁹² Neither the Commission nor the SBA has developed a small business size standard specifically for 800 and 800-like service (toll free) subscribers. The appropriate size standard under SBA rules is for the category Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁹³ The most reliable source of information regarding the number of these service subscribers appears to be data the Commission collects on the 800, 888, 877, and 866 numbers in use.⁹⁴ According to our data, as of September 2009, the number of 800 numbers assigned was 7,860,000; the number of 888 numbers assigned was 5,588,687; the number of 877 numbers assigned was 4,721,866; and the number of 866 numbers assigned was 7,867,736.⁹⁵ We do not have data specifying the number of these subscribers that are not independently owned and operated or have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of toll free subscribers that would qualify as small businesses under the SBA size standard. Consequently, we estimate that there are 7,860,000 or fewer small entity 800 subscribers; 5,588,687 or fewer small entity 888 subscribers; 4,721,866 or fewer small entity 877 subscribers; and 7,867,736 or fewer small entity 866 subscribers.

36. **Wireless Telecommunications Carriers (except Satellite).** Since 2007, the SBA has recognized wireless firms within this new, broad, economic census category.⁹⁶ Prior to that time, such firms were within the now-superseded categories of Paging and Cellular and Other Wireless Telecommunications.⁹⁷ Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees.⁹⁸ For this category, census data for 2007 show that there were 1,383 firms that operated for the entire year.⁹⁹ Of this total, 1,368 firms had employment of 999 or

⁸⁹ See 13 C.F.R. § 121.201, NAICS code 517110.

⁹⁰ See *Trends in Telephone Service* at Table 5.3.

⁹¹ See *id.*

⁹² We include all toll-free number subscribers in this category, including those for 888 numbers.

⁹³ See 13 C.F.R. § 121.201, NAICS code 517911.

⁹⁴ See *Trends in Telephone Service* at Tables 18.7-18.10.

⁹⁵ See *id.*

⁹⁶ See 13 C.F.R. § 121.201, NAICS code 517210.

⁹⁷ U.S. Census Bureau, 2002 NAICS Definitions, “517211 Paging”; <http://www.census.gov/epcd/naics02/def/NDEF517.HTM>; U.S. Census Bureau, 2002 NAICS Definitions, “517212 Cellular and Other Wireless Telecommunications”; <http://www.census.gov/epcd/naics02/def/NDEF517.HTM>.

⁹⁸ 13 C.F.R. § 121.201, NAICS code 517210. The now-superseded, pre-2007 C.F.R. citations were 13 C.F.R. § 121.201, NAICS codes 517211 and 517212 (referring to the 2002 NAICS).

⁹⁹ U.S. Census Bureau, Subject Series: Information, Table 5, “Establishment and Firm Size: Employment Size of Firms for the United States: 2007 NAICS Code 517210” (issued Nov. 2010).

fewer employees and 15 had employment of 1000 employees or more.¹⁰⁰ Similarly, according to Commission data, 413 carriers reported that they were engaged in the provision of wireless telephony, including cellular service, Personal Communications Service (PCS), and Specialized Mobile Radio (SMR) Telephony services.¹⁰¹ Of these, an estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees.¹⁰² Consequently, the Commission estimates that approximately half or more of these firms can be considered small. Thus, using available data, we estimate that the majority of wireless firms can be considered small.

37. **Broadband Personal Communications Service.** The broadband personal communications service (PCS) spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission defined “small entity” for Blocks C and F as an entity that has average gross revenues of \$40 million or less in the three previous calendar years.¹⁰³ For Block F, an additional classification for “very small business” was added and is defined as an entity that, together with its affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years.¹⁰⁴ These standards defining “small entity” in the context of broadband PCS auctions have been approved by the SBA.¹⁰⁵ No small businesses, within the SBA-approved small business size standards bid successfully for licenses in Blocks A and B. There were 90 winning bidders that qualified as small entities in the Block C auctions. A total of 93 small and very small business bidders won approximately 40 percent of the 1,479 licenses for Blocks D, E, and F.¹⁰⁶ In 1999, the Commission re-auctioned 347 C, E, and F Block licenses.¹⁰⁷ There were 48 small business winning bidders. In 2001, the Commission completed the auction of 422 C and F Broadband PCS licenses in Auction 35.¹⁰⁸ Of the 35 winning bidders in this auction, 29 qualified as “small” or “very small” businesses. Subsequent events, concerning Auction 35, including judicial and agency determinations, resulted in a total of 163 C and F Block licenses being available for grant. In 2005, the Commission completed an auction of 188 C block licenses and 21 F block licenses in Auction 58. There were 24

¹⁰⁰ *Id.* Available census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with “100 employees or more.”

¹⁰¹ See *Trends in Telephone Service* at Table 5.3.

¹⁰² See *id.*

¹⁰³ See generally *Amendment of Parts 20 and 24 of the Commission’s Rules – Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap*, WT Docket No. 96-59, GN Docket No. 90-314, Report and Order, 11 FCC Rcd 7824 (1996); see also 47 C.F.R. § 24.720(b)(1).

¹⁰⁴ See generally *Amendment of Parts 20 and 24 of the Commission’s Rules – Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap*, WT Docket No. 96-59, GN Docket No. 90-314, Report and Order, 11 FCC Rcd 7824 (1996); see also 47 C.F.R. § 24.720(b)(2).

¹⁰⁵ See, e.g., *Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, PP Docket No. 93-253, Fifth Report and Order, 9 FCC Rcd 5532 (1994).

¹⁰⁶ See FCC News, *Broadband PCS, D, E and F Block Auction Closes*, No. 71744 (rel. Jan. 14, 1997). See also *Amendment of the Commission’s Rules Regarding Installment Payment Financing for Personal Communications Services (PCS) Licensees*, WT Docket No. 97-82, Second Report and Order and Further Notice of Proposed Rulemaking, 12 FCC Rcd 16436 (1997).

¹⁰⁷ See “C, D, E, and F Block Broadband PCS Auction Closes,” *Public Notice*, 14 FCC Rcd 6688 (WTB 1999).

¹⁰⁸ See “C and F Block Broadband PCS Auction Closes; Winning Bidders Announced,” *Public Notice*, 16 FCC Rcd 2339 (2001).

winning bidders for 217 licenses.¹⁰⁹ Of the 24 winning bidders, 16 claimed small business status and won 156 licenses. In 2007, the Commission completed an auction of 33 licenses in the A, C, and F Blocks in Auction 71.¹¹⁰ Of the 14 winning bidders, six were designated entities.¹¹¹ In 2008, the Commission completed an auction of 20 Broadband PCS licenses in the C, D, E and F block licenses in Auction 78.¹¹²

38. **Advanced Wireless Services.** In 2008, the Commission conducted the auction of Advanced Wireless Services (“AWS”) licenses.¹¹³ This auction, which as designated as Auction 78, offered 35 licenses in the AWS 1710-1755 MHz and 2110-2155 MHz bands (“AWS-1”). The AWS-1 licenses were licenses for which there were no winning bids in Auction 66. That same year, the Commission completed Auction 78. A bidder with attributed average annual gross revenues that exceeded \$15 million and did not exceed \$40 million for the preceding three years (“small business”) received a 15 percent discount on its winning bid. A bidder with attributed average annual gross revenues that did not exceed \$15 million for the preceding three years (“very small business”) received a 25 percent discount on its winning bid. A bidder that had combined total assets of less than \$500 million and combined gross revenues of less than \$125 million in each of the last two years qualified for entrepreneur status.¹¹⁴ Four winning bidders that identified themselves as very small businesses won 17 licenses.¹¹⁵ Three of the winning bidders that identified themselves as a small business won five licenses. Additionally, one other winning bidder that qualified for entrepreneur status won 2 licenses.

39. **Narrowband Personal Communications Services.** In 1994, the Commission conducted an auction for Narrowband PCS licenses. A second auction was also conducted later in 1994. For purposes of the first two Narrowband PCS auctions, “small businesses” were entities with average gross revenues for the prior three calendar years of \$40 million or less.¹¹⁶ Through these auctions, the Commission awarded a total of 41 licenses, 11 of which were obtained by four small businesses.¹¹⁷ To ensure meaningful participation by small business entities in future auctions, the Commission adopted a

¹⁰⁹ See “Broadband PCS Spectrum Auction Closes; Winning Bidders Announced for Auction No. 58,” *Public Notice*, 20 FCC Rcd 3703 (2005).

¹¹⁰ See “Auction of Broadband PCS Spectrum Licenses Closes; Winning Bidders Announced for Auction No. 71,” *Public Notice*, 22 FCC Rcd 9247 (2007).

¹¹¹ *Id.*

¹¹² See Auction of AWS-1 and Broadband PCS Licenses Rescheduled For August 13, 3008, Notice of Filing Requirements, Minimum Opening Bids, Upfront Payments and Other Procedures For Auction 78, *Public Notice*, 23 FCC Rcd 7496 (2008) (“AWS-1 and Broadband PCS Procedures Public Notice”).

¹¹³ See AWS-1 and Broadband PCS Procedures Public Notice, 23 FCC Rcd 7496. Auction 78 also included an auction of Broadband PCS licenses.

¹¹⁴ *Id.* at 23 FCC Rcd at 7521-22.

¹¹⁵ See “Auction of AWS-1 and Broadband PCS Licenses Closes, Winning Bidders Announced for Auction 78, Down Payments Due September 9, 2008, FCC Forms 601 and 602 Due September 9, 2008, Final Payments Due September 23, 2008, Ten-Day Petition to Deny Period”, *Public Notice*, 23 FCC Rcd 12749 (2008).

¹¹⁶ *Implementation of Section 309(j) of the Communications Act – Competitive Bidding Narrowband PCS*, PP Docket No. 93-253, GEN Docket No. 90-314, ET Docket No. 92-100, Third Memorandum Opinion and Order and Further Notice of Proposed Rulemaking, 10 FCC Rcd 175, 196, para. 46 (1994).

¹¹⁷ See “Announcing the High Bidders in the Auction of Ten Nationwide Narrowband PCS Licenses, Winning Bids Total \$617,006,674,” *Public Notice*, PNWL 94-004 (rel. Aug. 2, 1994); “Announcing the High Bidders in the Auction of 30 Regional Narrowband PCS Licenses; Winning Bids Total \$490,901,787,” *Public Notice*, PNWL 94-27 (rel. Nov. 9, 1994).

two-tiered small business size standard in the *Narrowband PCS Second Report and Order*.¹¹⁸ A “small business” is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than \$40 million.¹¹⁹ A “very small business” is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than \$15 million.¹²⁰ The SBA has approved these small business size standards.¹²¹ A third auction was conducted in 2001. Here, five bidders won 317 (Metropolitan Trading Areas and nationwide) licenses.¹²² Three of these claimed status as a small or very small entity and won 311 licenses.

40. **Paging (Private and Common Carrier).** In the *Paging Third Report and Order*, we developed a small business size standard for “small businesses” and “very small businesses” for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.¹²³ A “small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$15 million for the preceding three years. Additionally, a “very small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$3 million for the preceding three years. The SBA has approved these small business size standards.¹²⁴ According to Commission data, 291 carriers have reported that they are engaged in Paging or Messaging Service.¹²⁵ Of these, an estimated 289 have 1,500 or fewer employees, and two have more than 1,500 employees.¹²⁶ Consequently, the Commission estimates that the majority of paging providers are small entities that may be affected by our action. An auction of Metropolitan Economic Area licenses commenced on February 24, 2000, and closed on March 2, 2000. Of the 2,499 licenses auctioned, 985 were sold. Fifty-seven companies claiming small business status won 440 licenses. A subsequent auction of MEA and Economic Area (“EA”) licenses was held in the year 2001. Of the 15,514 licenses auctioned, 5,323 were sold.¹²⁷ One hundred thirty-two companies claiming small business status purchased 3,724 licenses. A third auction, consisting of 8,874 licenses in each of 175 EAs and 1,328 licenses in all but three of the 51 MEAs, was held in 2003. Seventy-seven bidders claiming small or very small business status won 2,093 licenses.¹²⁸ A fourth auction of 9,603 lower and upper

¹¹⁸ *Amendment of the Commission’s Rules to Establish New Personal Communications Services*, GEN Docket No. 90-314, ET Docket No. 92-100, PP Docket No. 93-253, *Narrowband PCS, Second Report and Order and Second Further Notice of Proposed Rule Making*, 15 FCC Rcd 10456, 10476, para. 40 (2000) (“*Narrowband PCS Second Report and Order*”).

¹¹⁹ *Narrowband PCS Second Report and Order*, 15 FCC Rcd at 10476, para. 40.

¹²⁰ *Id.*

¹²¹ See Letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC, from A. Alvarez, Administrator, SBA (Dec. 2, 1998) (*Alvarez Letter 1998*).

¹²² See “Narrowband PCS Auction Closes,” *Public Notice*, 16 FCC Rcd 18663 (WTB 2001).

¹²³ See *Revision of Part 22 and Part 90 of the Commission’s Rules to Facilitate Future Development of Paging Systems*, WT Docket No. 96-18, PR Docket No. 93-253, Memorandum Opinion and Order on Reconsideration and Third Report and Order, 14 FCC Rcd 10030, 10085–88, paras. 98–107 (1999) (*Paging Third Report and Order*)

¹²⁴ See *Alvarez Letter 1998*.

¹²⁵ See *Trends in Telephone Service* at Table 5.3.

¹²⁶ See *id.*

¹²⁷ See “*Lower and Upper Paging Band Auction Closes*,” *Public Notice*, 16 FCC Rcd 21,821 (2002).

¹²⁸ See “*Lower and Upper Paging Bands Auction Closes*,” *Public Notice*, 18 FCC Rcd 11,154 (2003). The current number of small or very small business entities that hold wireless licenses may differ significantly from the number (continued...)

band paging licenses was held in the year 2010. Twenty-nine bidders claiming small or very small business status won 3,016 licenses.¹²⁹

41. **220 MHz Radio Service – Phase I Licensees.** The 220 MHz service has both Phase I and Phase II licenses. Phase I licensing was conducted by lotteries in 1992 and 1993. There are approximately 1,515 such non-nationwide licensees and four nationwide licensees currently authorized to operate in the 220 MHz band. The Commission has not developed a small business size standard for small entities specifically applicable to such incumbent 220 MHz Phase I licensees. To estimate the number of such licensees that are small businesses, we apply the small business size standard under the SBA rules applicable to Wireless Telecommunications Carriers (except Satellite). Under this category, the SBA deems a wireless business to be small if it has 1,500 or fewer employees.¹³⁰ The Commission estimates that nearly all such licensees are small businesses under the SBA’s small business size standard that may be affected by rules adopted pursuant to the FNPRM.

42. **220 MHz Radio Service – Phase II Licensees.** The 220 MHz service has both Phase I and Phase II licenses. The Phase II 220 MHz service is subject to spectrum auctions. In the *220 MHz Third Report and Order*, we adopted a small business size standard for “small” and “very small” businesses for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.¹³¹ This small business size standard indicates that a “small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$15 million for the preceding three years.¹³² A “very small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues that do not exceed \$3 million for the preceding three years.¹³³ The SBA has approved these small business size standards.¹³⁴ Auctions of Phase II licenses commenced on September 15, 1998, and closed on October 22, 1998.¹³⁵ In the first auction, 908 licenses were auctioned in three different-sized geographic areas: three nationwide licenses, 30 Regional Economic Area Group (EAG) Licenses, and 875 Economic Area (EA) Licenses. Of the 908 licenses auctioned, 693 were sold. Thirty-nine small businesses won licenses in the first 220 MHz auction. The second auction included 225 licenses: 216 EA licenses and 9 EAG licenses. Fourteen companies claiming small business status won 158 licenses.¹³⁶

43. **Specialized Mobile Radio.** The Commission awards small business bidding credits in auctions for Specialized Mobile Radio (“SMR”) geographic area licenses in the 800 MHz and 900 MHz (Continued from previous page) _____

of such entities that won in spectrum auctions due to assignments and transfers of licenses in the secondary market over time. In addition, some of the same small business entities may have won licenses in more than one auction.

¹²⁹ See “*Lower and Upper Paging Bands Auction Closes*,” Public Notice, 25 FCC Rcd 18,164 (2010).

¹³⁰ See 13 C.F.R. § 121.201, NAICS code 517210.

¹³¹ See *Amendment of Part 90 of the Commission’s Rules to Provide for the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service*, PR Docket No. 89-552, GN Docket No. 93-252, PP Docket No. 93-253, Third Report and Order and Fifth Notice of Proposed Rulemaking, 12 FCC Rcd 10943, 11068–70, paras. 291–295 (1997) (*220 MHz Third Report and Order*).

¹³² See *id.* at 11068–69, para. 291.

¹³³ See *id.* at 11068–70, paras. 291–95.

¹³⁴ See Letter to D. Phythyon, Chief, Wireless Telecommunications Bureau, FCC, from Aida Alvarez, Administrator, SBA (Jan. 6, 1998) (*Alvarez to Phythyon Letter 1998*).

¹³⁵ See *Phase II 220 MHz Service Auction Closes*, Public Notice, 14 FCC Rcd 605 (1998).

¹³⁶ See *Phase II 220 MHz Service Spectrum Auction Closes*, Public Notice, 14 FCC Rcd 11218 (1999).

bands to entities that had revenues of no more than \$15 million in each of the three previous calendar years.¹³⁷ The Commission awards very small business bidding credits to entities that had revenues of no more than \$3 million in each of the three previous calendar years.¹³⁸ The SBA has approved these small business size standards for the 800 MHz and 900 MHz SMR Services.¹³⁹ The Commission has held auctions for geographic area licenses in the 800 MHz and 900 MHz bands. The 900 MHz SMR auction was completed in 1996.¹⁴⁰ Sixty bidders claiming that they qualified as small businesses under the \$15 million size standard won 263 geographic area licenses in the 900 MHz SMR band.¹⁴¹ The 800 MHz SMR auction for the upper 200 channels was conducted in 1997. Ten bidders claiming that they qualified as small businesses under the \$15 million size standard won 38 geographic area licenses for the upper 200 channels in the 800 MHz SMR band.¹⁴² A second auction for the 800 MHz band was conducted in 2002 and included 23 BEA licenses. One bidder claiming small business status won five licenses.¹⁴³

44. The auction of the 1,053 800 MHz SMR geographic area licenses for the General Category channels was conducted in 2000. Eleven bidders won 108 geographic area licenses for the General Category channels in the 800 MHz SMR band qualified as small businesses under the \$15 million size standard.¹⁴⁴ In an auction completed in 2000, a total of 2,800 Economic Area licenses in the lower 80 channels of the 800 MHz SMR service were awarded.¹⁴⁵ Of the 22 winning bidders, 19 claimed small business status and won 129 licenses. Thus, combining all three auctions, 40 winning bidders for geographic licenses in the 800 MHz SMR band claimed status as small business.

45. In addition, there are numerous incumbent site-by-site SMR licensees and licensees with extended implementation authorizations in the 800 and 900 MHz bands. We do not know how many firms provide 800 MHz or 900 MHz geographic area SMR pursuant to extended implementation authorizations, nor how many of these providers have annual revenues of no more than \$15 million. One firm has over \$15 million in revenues. In addition, we do not know how many of these firms have 1500 or fewer employees.¹⁴⁶ We assume, for purposes of this analysis, that all of the remaining existing extended implementation authorizations are held by small entities, as that small business size standard is approved by the SBA.

46. **Broadband Radio Service and Educational Broadband Service.** Broadband Radio Service systems, previously referred to as Multipoint Distribution Service (“MDS”) and Multichannel

¹³⁷ 47 C.F.R. §§ 90.810, 90.814(b), 90.912.

¹³⁸ 47 C.F.R. §§ 90.810, 90.814(b), 90.912.

¹³⁹ See Letter from Aida Alvarez, Administrator, SBA, to Thomas Sugrue, Chief, Wireless Telecommunications Bureau, FCC (Aug. 10, 1999) (*Alvarez Letter 1999*).

¹⁴⁰ “FCC Announces Winning Bidders in the Auction of 1,020 Licenses to Provide 900 MHz SMR in Major Trading Areas: Down Payments due April 22, 1996, FCC Form 600s due April 29, 1996,” *Public Notice*, 11 FCC Rcd 18599 (WTB 1996).

¹⁴¹ *Id.*

¹⁴² See “Correction to Public Notice DA 96-586 ‘FCC Announces Winning Bidders in the Auction of 1020 Licenses to Provide 900 MHz SMR in Major Trading Areas,’” *Public Notice*, 11 FCC Rcd 18,637 (WTB 1996).

¹⁴³ See “Multi-Radio Service Auction Closes,” *Public Notice*, 17 FCC Rcd 1446 (WTB 2002).

¹⁴⁴ See “800 MHz Specialized Mobile Radio (SMR) Service General Category (851-854 MHz) and Upper Band (861-865 MHz) Auction Closes; Winning Bidders Announced,” *Public Notice*, 15 FCC Rcd 17162 (WTB 2000).

¹⁴⁵ See “800 MHz SMR Service Lower 80 Channels Auction Closes; Winning Bidders Announced,” *Public Notice*, 16 FCC Rcd 1736 (WTB 2000).

¹⁴⁶ See generally 13 C.F.R. § 121.201, NAICS code 517210.

Multipoint Distribution Service (“MMDS”) systems, and “wireless cable,” transmit video programming to subscribers and provide two-way high speed data operations using the microwave frequencies of the Broadband Radio Service (“BRS”) and Educational Broadband Service (“EBS”) (previously referred to as the Instructional Television Fixed Service (“ITFS”).¹⁴⁷ In connection with the 1996 BRS auction, the Commission established a small business size standard as an entity that had annual average gross revenues of no more than \$40 million in the previous three calendar years.¹⁴⁸ The BRS auctions resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas (“BTAs”). Of the 67 auction winners, 61 met the definition of a small business. BRS also includes licensees of stations authorized prior to the auction. At this time, we estimate that of the 61 small business BRS auction winners, 48 remain small business licensees. In addition to the 48 small businesses that hold BTA authorizations, there are approximately 392 incumbent BRS licensees that are considered small entities.¹⁴⁹ After adding the number of small business auction licensees to the number of incumbent licensees not already counted, we find that there are currently approximately 440 BRS licensees that are defined as small businesses under either the SBA or the Commission’s rules. The Commission has adopted three levels of bidding credits for BRS: (i) a bidder with attributed average annual gross revenues that exceed \$15 million and do not exceed \$40 million for the preceding three years (small business) is eligible to receive a 15 percent discount on its winning bid; (ii) a bidder with attributed average annual gross revenues that exceed \$3 million and do not exceed \$15 million for the preceding three years (very small business) is eligible to receive a 25 percent discount on its winning bid; and (iii) a bidder with attributed average annual gross revenues that do not exceed \$3 million for the preceding three years (entrepreneur) is eligible to receive a 35 percent discount on its winning bid.¹⁵⁰ In 2009, the Commission conducted Auction 86, which offered 78 BRS licenses.¹⁵¹ Auction 86 concluded with ten bidders winning 61 licenses.¹⁵² Of the ten, two bidders claimed small business status and won 4 licenses; one bidder claimed very small business status and won three licenses; and two bidders claimed entrepreneur status and won six licenses.

47. In addition, the SBA’s Cable Television Distribution Services small business size standard is applicable to EBS. There are presently 2,032 EBS licensees. All but 100 of these licenses are held by educational institutions. Educational institutions are included in this analysis as small entities.¹⁵³

¹⁴⁷ *Amendment of Parts 21 and 74 of the Commission’s Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, MM Docket No. 94-131 and PP Docket No. 93-253, Report and Order, 10 FCC Rcd 9589, 9593 para. 7 (1995).

¹⁴⁸ 47 C.F.R. § 21.961(b)(1).

¹⁴⁹ 47 U.S.C. § 309(j). Hundreds of stations were licensed to incumbent MDS licensees prior to implementation of Section 309(j) of the Communications Act of 1934, 47 U.S.C. § 309(j). For these pre-auction licenses, the applicable standard is SBA’s small business size standard.

¹⁵⁰ 47 C.F.R. § 27.1218. *See also* “Auction of Broadband Radio Service (BRS) Licenses, Scheduled for October 27, 2009, Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments, and Other Procedures for Auction 86,” Public Notice, 24 FCC Rcd 8277, 8296 (WTB 2009) (*Auction 86 Procedures Public Notice*).

¹⁵¹ *Auction 86 Procedures Public Notice*, 24 FCC Rcd at 8280.

¹⁵² “Auction of Broadband Radio Service Licenses Closes, Winning Bidders Announced for Auction 86, Down Payments Due November 23, 2009, Final Payments Due December 8, 2009, Ten-Day Petition to Deny Period,” Public Notice, 24 FCC Rcd 13572 (WTB 2009).

¹⁵³ The term “small entity” within SBREFA applies to small organizations (nonprofits) and to small governmental jurisdictions (cities, counties, towns, townships, villages, school districts, and special districts with populations of less than 50,000). 5 U.S.C. §§ 601(4)-(6). We do not collect annual revenue data on EBS licensees.

Thus, we estimate that at least 1,932 licensees are small businesses. Since 2007, Cable Television Distribution Services have been defined within the broad economic census category of Wired Telecommunications Carriers; that category is defined as follows: “This industry comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies.”¹⁵⁴ The SBA defines a small business size standard for this category as any such firms having 1,500 or fewer employees. The SBA has developed a small business size standard for this category, which is: all such firms having 1,500 or fewer employees. According to Census Bureau data for 2007, there were a total of 955 firms in this previous category that operated for the entire year.¹⁵⁵ Of this total, 939 firms had employment of 999 or fewer employees, and 16 firms had employment of 1000 employees or more.¹⁵⁶ Thus, under this size standard, the majority of firms can be considered small and may be affected by rules adopted pursuant to the FNPRM.

48. **Lower 700 MHz Band Licenses.** The Commission previously adopted criteria for defining three groups of small businesses for purposes of determining their eligibility for special provisions such as bidding credits.¹⁵⁷ The Commission defined a “small business” as an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$40 million for the preceding three years.¹⁵⁸ A “very small business” is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$15 million for the preceding three years.¹⁵⁹ Additionally, the Lower 700 MHz Band had a third category of small business status for Metropolitan/Rural Service Area (“MSA/RSA”) licenses, identified as “entrepreneur” and defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$3 million for the preceding three years.¹⁶⁰ The SBA approved these small size standards.¹⁶¹ The Commission conducted an auction in 2002 of 740 Lower 700 MHz Band licenses (one license in each of the 734 MSAs/RSAs and one license in each of the six Economic Area Groupings (EAGs)). Of the 740 licenses available for auction, 484 licenses were sold to 102 winning bidders.¹⁶² Seventy-two of the winning bidders claimed small business, very small business or entrepreneur status and won a total of 329 licenses.¹⁶³ The Commission conducted a second Lower 700 MHz Band auction in 2003 that included 256 licenses: 5 EAG licenses and 476 Cellular Market Area licenses.¹⁶⁴ Seventeen winning bidders claimed small or very small business status and won 60 licenses,

¹⁵⁴ U.S. Census Bureau, 2007 NAICS Definitions, “517110 Wired Telecommunications Carriers” (partial definition); <http://www.census.gov/naics/2007/def/ND517110.HTM#N517110>.

¹⁵⁵ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, Table 5, Employment Size of Firms for the United States: 2007, NAICS code 5171102 (issued Nov. 2010).

¹⁵⁶ *See id.*

¹⁵⁷ *See Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59)*, GN Docket No. 01-74, Report and Order, 17 FCC Rcd 1022 (2002) (*Channels 52-59 Report and Order*).

¹⁵⁸ *See Channels 52-59 Report and Order*, 17 FCC Rcd at 1087-88 para. 172.

¹⁵⁹ *See id.*

¹⁶⁰ *See id.* at 1088 para. 173.

¹⁶¹ *See Alvarez Letter 1999*.

¹⁶² *See* “Lower 700 MHz Band Auction Closes,” Public Notice, 17 FCC Rcd 17272 (WTB 2002).

¹⁶³ *Id.*

¹⁶⁴ *See* “Lower 700 MHz Band Auction Closes,” Public Notice, 18 FCC Rcd 11873 (WTB 2003).

and nine winning bidders claimed entrepreneur status and won 154 licenses.¹⁶⁵ In 2005, the Commission completed an auction of 5 licenses in the Lower 700 MHz Band, designated Auction 60. There were three winning bidders for five licenses. All three winning bidders claimed small business status.¹⁶⁶

49. In 2007, the Commission reexamined its rules governing the 700 MHz band in the *700 MHz Second Report and Order*.¹⁶⁷ The *700 MHz Second Report and Order* revised the band plan for the commercial (including Guard Band) and public safety spectrum, adopted services rules, including stringent build-out requirements, an open platform requirement on the C Block, and a requirement on the D Block licensee to construct and operate a nationwide, interoperable wireless broadband network for public safety users.¹⁶⁸ An auction of A, B and E block licenses in the Lower 700 MHz band was held in 2008.¹⁶⁹ Twenty winning bidders claimed small business status (those with attributable average annual gross revenues that exceed \$15 million and do not exceed \$40 million for the preceding three years). Thirty three winning bidders claimed very small business status (those with attributable average annual gross revenues that do not exceed \$15 million for the preceding three years). In 2011, the Commission conducted Auction 92, which offered 16 Lower 700 MHz band licenses that had been made available in Auction 73 but either remained unsold or were licenses on which a winning bidder defaulted. Two of the seven winning bidders in Auction 92 claimed very small business status, winning a total of four licenses.¹⁷⁰

50. **Upper 700 MHz Band Licenses.** In the *700 MHz Second Report and Order*, the

¹⁶⁵ *See id.*

¹⁶⁶ “Auction of Lower 700 MHz Band Licenses Closes, Winning Bidders Announced for Auction No. 60, Down Payments due August 19, 2005, FCC Forms 601 and 602 due August 19, 2005, Final Payment due September 2, 2005, Ten-Day Petition to Deny Period,” Public Notice, 20 FCC Rcd 13424 (WTB 2005).

¹⁶⁷ *Service Rules for the 698-746, 747-762 and 777-792 MHz Band, WT Docket No. 06-150, Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, Section 68.4(a) of the Commission’s Rules Governing Hearing Aid-Compatible Telephone, Biennial Regulatory Review – Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services, Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission’s Rules, Implementing a Nationwide, Broadband Interoperable Public Safety Network in the 700 MHz Band, Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Communications Requirements Through the Year 2010, WT Docket Nos. 96-86, 01-309, 03-264, 06-169, PS Docket No. 06-229, Second Report and Order, 22 FCC Rcd 15289 (2007) (700 MHz Second Report and Order).*

¹⁶⁸ *Service Rules for the 698-746, 747-762 and 777-792 MHz Band, WT Docket No. 06-150, Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, Section 68.4(a) of the Commission’s Rules Governing Hearing Aid-Compatible Telephone, WT Docket No. 01-309, Biennial Regulatory Review – Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services, WT Docket No. 03-264, Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission’s Rules, WT Docket No. 06-169, Implementing a Nationwide, Broadband Interoperable Public Safety Network in the 700 MHz Band, PS Docket No. 06-229, Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Communications Requirements Through the Year 2010, WT Docket No. 96-86, Second Report and Order, 22 FCC Rcd 15289 (2007) (“700 MHz Second Report and Order”).*

¹⁶⁹ *See Auction of 700 MHz Band Licenses Closes, Public Notice, 23 FCC Rcd 4572 (WTB 2008).*

¹⁷⁰ *See “Auction of 700 MHz Band Licenses Closes, Winning Bidders Announced for Auction 92, Down Payments and FCC Forms 601 and 602 Due August 11, 2011, Final Payments Due August 25, 2011, Ten-Day Petition to Deny Period,” Public Notice, 26 FCC Rcd 10,494 (WTB 2011).*

Commission revised its rules regarding Upper 700 MHz band licenses.¹⁷¹ In 2008, the Commission conducted Auction 73 in which C and D block licenses in the Upper 700 MHz band were available.¹⁷² Three winning bidders claimed very small business status (those with attributable average annual gross revenues that do not exceed \$15 million for the preceding three years).

51. **700 MHz Guard Band Licensees.** In the *700 MHz Guard Band Order*, we adopted a small business size standard for “small businesses” and “very small businesses” for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.¹⁷³ A “small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$40 million for the preceding three years.¹⁷⁴ Additionally, a “very small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$15 million for the preceding three years.¹⁷⁵ An auction of 52 Major Economic Area (MEA) licenses commenced on September 6, 2000, and closed on September 21, 2000.¹⁷⁶ Of the 104 licenses auctioned, 96 licenses were sold to nine bidders. Five of these bidders were small businesses that won a total of 26 licenses. A second auction of 700 MHz Guard Band licenses commenced on February 13, 2001 and closed on February 21, 2001. All eight of the licenses auctioned were sold to three bidders. One of these bidders was a small business that won a total of two licenses.¹⁷⁷

52. **Cellular Radiotelephone Service.** Auction 77 was held to resolve one group of mutually exclusive applications for Cellular Radiotelephone Service licenses for unserved areas in New Mexico.¹⁷⁸ Bidding credits for designated entities were not available in Auction 77.¹⁷⁹ In 2008, the Commission completed the closed auction of one unserved service area in the Cellular Radiotelephone Service, designated as Auction 77. Auction 77 concluded with one provisionally winning bid for the unserved area totaling \$25,002.¹⁸⁰

53. **Private Land Mobile Radio (“PLMR”).** PLMR systems serve an essential role in a range of industrial, business, land transportation, and public safety activities. These radios are used by companies of all sizes operating in all U.S. business categories, and are often used in support of the licensee’s primary (non-telecommunications) business operations. For the purpose of determining whether a licensee of a PLMR system is a small business as defined by the SBA, we use the broad census category, Wireless Telecommunications Carriers (except Satellite). This definition provides that a small

¹⁷¹ 700 MHz Second Report and Order, 22 FCC Rcd 15,289.

¹⁷² See Auction of 700 MHz Band Licenses Closes, *Public Notice*, 23 FCC Rcd 4572 (2008).

¹⁷³ See *Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission’s Rules*, WT Docket No. 99-168, Second Report and Order, 15 FCC Rcd 5299 (2000) (*700 MHz Guard Band Order*).

¹⁷⁴ See *id.* at 5343–45 paras. 106–10.

¹⁷⁵ See *id.*

¹⁷⁶ See *700 MHz Guard Band Auction Closes*, *Public Notice*, 15 FCC Rcd 18026 (2000).

¹⁷⁷ See *700 MHz Guard Band Auction Closes*, *Public Notice*, 16 FCC Rcd 4590 (2001).

¹⁷⁸ See “Closed Auction of Licenses for Cellular Unserved Service Area Scheduled for June 17, 2008, Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments, and Other Procedures for Auction 77,” *Public Notice*, 23 FCC Rcd 6670 (WTB 2008).

¹⁷⁹ *Id.* at 6685.

¹⁸⁰ See “Auction of Cellular Unserved Service Area License Closes, Winning Bidder Announced for Auction 77, Down Payment due July 2, 2008, Final Payment due July 17, 2008,” *Public Notice*, 23 FCC Rcd 9501 (WTB 2008).

entity is any such entity employing no more than 1,500 persons.¹⁸¹ The Commission does not require PLMR licensees to disclose information about number of employees, so the Commission does not have information that could be used to determine how many PLMR licensees constitute small entities under this definition. We note that PLMR licensees generally use the licensed facilities in support of other business activities, and therefore, it would also be helpful to assess PLMR licensees under the standards applied to the particular industry subsector to which the licensee belongs.¹⁸²

54. As of March 2010, there were 424,162 PLMR licensees operating 921,909 transmitters in the PLMR bands below 512 MHz. We note that any entity engaged in a commercial activity is eligible to hold a PLMR license, and that any revised rules in this context could therefore potentially impact small entities covering a great variety of industries.

55. **Rural Radiotelephone Service.** The Commission has not adopted a size standard for small businesses specific to the Rural Radiotelephone Service.¹⁸³ A significant subset of the Rural Radiotelephone Service is the Basic Exchange Telephone Radio System (“BETRS”).¹⁸⁴ In the present context, we will use the SBA’s small business size standard applicable to Wireless Telecommunications Carriers (except Satellite), *i.e.*, an entity employing no more than 1,500 persons.¹⁸⁵ There are approximately 1,000 licensees in the Rural Radiotelephone Service, and the Commission estimates that there are 1,000 or fewer small entity licensees in the Rural Radiotelephone Service that may be affected by the rules and policies proposed herein.

56. **Air-Ground Radiotelephone Service.** The Commission has not adopted a small business size standard specific to the Air-Ground Radiotelephone Service.¹⁸⁶ We will use SBA’s small business size standard applicable to Wireless Telecommunications Carriers (except Satellite), *i.e.*, an entity employing no more than 1,500 persons.¹⁸⁷ There are approximately 100 licensees in the Air-Ground Radiotelephone Service, and we estimate that almost all of them qualify as small under the SBA small business size standard and may be affected by rules adopted pursuant to the FNPRM.

57. **Aviation and Marine Radio Services.** Small businesses in the aviation and marine radio services use a very high frequency (VHF) marine or aircraft radio and, as appropriate, an emergency position-indicating radio beacon (and/or radar) or an emergency locator transmitter. The Commission has not developed a small business size standard specifically applicable to these small businesses. For purposes of this analysis, the Commission uses the SBA small business size standard for the category Wireless Telecommunications Carriers (except Satellite), which is 1,500 or fewer employees.¹⁸⁸ Most applicants for recreational licenses are individuals. Approximately 581,000 ship station licensees and 131,000 aircraft station licensees operate domestically and are not subject to the radio carriage requirements of any statute or treaty. For purposes of our evaluations in this analysis, we estimate that there are up to approximately 712,000 licensees that are small businesses (or individuals) under the SBA standard. In addition, between December 3, 1998 and December 14, 1998, the Commission held an

¹⁸¹ See 13 C.F.R. § 121.201, NAICS code 517210.

¹⁸² See generally 13 C.F.R. § 121.201.

¹⁸³ The service is defined in 47 C.F.R. § 22.99.

¹⁸⁴ BETRS is defined in 47 C.F.R. §§ 22.757 and 22.759.

¹⁸⁵ 13 C.F.R. § 121.201, NAICS code 517210.

¹⁸⁶ See 47 C.F.R. § 22.99.

¹⁸⁷ See 13 C.F.R. § 121.201, NAICS code 517210.

¹⁸⁸ See 13 C.F.R. § 121.201, NAICS code 517210.

auction of 42 VHF Public Coast licenses in the 157.1875-157.4500 MHz (ship transmit) and 161.775-162.0125 MHz (coast transmit) bands. For purposes of the auction, the Commission defined a “small” business as an entity that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed \$15 million dollars.¹⁸⁹ In addition, a “very small” business is one that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed \$3 million dollars.¹⁹⁰ There are approximately 10,672 licensees in the Marine Coast Service, and the Commission estimates that almost all of them qualify as “small” businesses under the above special small business size standards and may be affected by rules adopted pursuant to the FNPRM.

58. **Fixed Microwave Services.** Fixed microwave services include common carrier,¹⁹¹ private operational-fixed,¹⁹² and broadcast auxiliary radio services.¹⁹³ At present, there are approximately 22,015 common carrier fixed licensees and 61,670 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services. The Commission has not created a size standard for a small business specifically with respect to fixed microwave services. For purposes of this analysis, the Commission uses the SBA small business size standard for Wireless Telecommunications Carriers (except Satellite), which is 1,500 or fewer employees.¹⁹⁴ The Commission does not have data specifying the number of these licensees that have more than 1,500 employees, and thus is unable at this time to estimate with greater precision the number of fixed microwave service licensees that would qualify as small business concerns under the SBA’s small business size standard. Consequently, the Commission estimates that there are up to 22,015 common carrier fixed licensees and up to 61,670 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services that may be small and may be affected by the rules and policies adopted herein. We note, however, that the common carrier microwave fixed licensee category includes some large entities.

59. **Offshore Radiotelephone Service.** This service operates on several UHF television broadcast channels that are not used for television broadcasting in the coastal areas of states bordering the Gulf of Mexico.¹⁹⁵ There are approximately 55 licensees in this service. We are unable to estimate at this time the number of licensees that would qualify as small under the SBA’s small business size standard for

¹⁸⁹ See generally *Amendment of the Commission’s Rules Concerning Maritime Communications*, PR Docket No. 92-257, Third Report and Order and Memorandum Opinion and Order, 13 FCC Rcd 19853, 19884–88 paras. 64–73 (1998).

¹⁹⁰ See *id.*

¹⁹¹ See 47 C.F.R. §§ 101 *et seq.* (formerly, Part 21 of the Commission’s Rules) for common carrier fixed microwave services (except Multipoint Distribution Service).

¹⁹² Persons eligible under parts 80 and 90 of the Commission’s Rules can use Private Operational-Fixed Microwave services. See 47 C.F.R. Parts 80 and 90. Stations in this service are called operational-fixed to distinguish them from common carrier and public fixed stations. Only the licensee may use the operational-fixed station, and only for communications related to the licensee’s commercial, industrial, or safety operations.

¹⁹³ Auxiliary Microwave Service is governed by Part 74 of Title 47 of the Commission’s Rules. See 47 C.F.R. Part 74. This service is available to licensees of broadcast stations and to broadcast and cable network entities. Broadcast auxiliary microwave stations are used for relaying broadcast television signals from the studio to the transmitter, or between two points such as a main studio and an auxiliary studio. The service also includes mobile television pickups, which relay signals from a remote location back to the studio.

¹⁹⁴ See 13 C.F.R. § 121.201, NAICS code 517210.

¹⁹⁵ This service is governed by Subpart I of Part 22 of the Commission’s Rules. See 47 C.F.R. §§ 22.1001–1037.

Cellular and Other Wireless Telecommunications services.¹⁹⁶ Under that SBA small business size standard, a business is small if it has 1,500 or fewer employees.¹⁹⁷

60. **39 GHz Service.** The Commission created a special small business size standard for 39 GHz licenses – an entity that has average gross revenues of \$40 million or less in the three previous calendar years.¹⁹⁸ An additional size standard for “very small business” is: an entity that, together with affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years.¹⁹⁹ The SBA has approved these small business size standards.²⁰⁰ The auction of the 2,173 39 GHz licenses began on April 12, 2000 and closed on May 8, 2000. The 18 bidders who claimed small business status won 849 licenses. Consequently, the Commission estimates that 18 or fewer 39 GHz licensees are small entities that may be affected by rules adopted pursuant to the FNPRM.

61. **Local Multipoint Distribution Service.** Local Multipoint Distribution Service (“LMDS”) is a fixed broadband point-to-multipoint microwave service that provides for two-way video telecommunications.²⁰¹ The auction of the 986 LMDS licenses began and closed in 1998. The Commission established a small business size standard for LMDS licenses as an entity that has average gross revenues of less than \$40 million in the three previous calendar years.²⁰² An additional small business size standard for “very small business” was added as an entity that, together with its affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years.²⁰³ The SBA has approved these small business size standards in the context of LMDS auctions.²⁰⁴ There were 93 winning bidders that qualified as small entities in the LMDS auctions. A total of 93 small and very small business bidders won approximately 277 A Block licenses and 387 B Block licenses. In 1999, the Commission re-auctioned 161 licenses; there were 32 small and very small businesses winning that won 119 licenses.

62. **218-219 MHz Service.** The first auction of 218-219 MHz spectrum resulted in 170 entities winning licenses for 594 Metropolitan Statistical Area (MSA) licenses. Of the 594 licenses, 557 were won by entities qualifying as a small business. For that auction, the small business size standard was an entity that, together with its affiliates, has no more than a \$6 million net worth and, after federal income taxes (excluding any carry over losses), has no more than \$2 million in annual profits each year

¹⁹⁶ See 13 C.F.R. § 121.201, NAICS code 517212 (This category will be changed for purposes of the 2007 Census to “Wireless Telecommunications Carriers (except Satellite),” NAICS code 517210.).

¹⁹⁷ See *id.*

¹⁹⁸ See *Amendment of the Commission’s Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands*, ET Docket No. 95-183, PP Docket No. 93-253, Report and Order, 12 FCC Rcd 18600, 18661–64, paras. 149–151 (1997).

¹⁹⁹ See *id.*

²⁰⁰ See Letter to Kathleen O’Brien Ham, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC, from Aida Alvarez, Administrator, SBA (Feb. 4, 1998).

²⁰¹ See *Rulemaking to Amend Parts 1, 2, 21, 25, of the Commission’s Rules to Redesignate the 27.5-29.5 GHz Frequency Band, Reallocate the 29.5-30.5 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services*, CC Docket No. 92-297, Second Report and Order, Order on Reconsideration, and Fifth Notice of Proposed Rule Making, 12 FCC Rcd 12545, 12689-90, para. 348 (1997) (“*LMDS Second Report and Order*”).

²⁰² See *LMDS Second Report and Order*, 12 FCC Rcd at 12689-90, ¶ 348.

²⁰³ See *id.*

²⁰⁴ See Alvarez to Phythyon Letter 1998.

for the previous two years.²⁰⁵ In the *218-219 MHz Report and Order and Memorandum Opinion and Order*, we established a small business size standard for a “small business” as an entity that, together with its affiliates and persons or entities that hold interests in such an entity and their affiliates, has average annual gross revenues not to exceed \$15 million for the preceding three years.²⁰⁶ A “very small business” is defined as an entity that, together with its affiliates and persons or entities that hold interests in such an entity and its affiliates, has average annual gross revenues not to exceed \$3 million for the preceding three years.²⁰⁷ These size standards will be used in future auctions of 218-219 MHz spectrum.

63. **2.3 GHz Wireless Communications Services.** This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses. The Commission defined “small business” for the wireless communications services (“WCS”) auction as an entity with average gross revenues of \$40 million for each of the three preceding years, and a “very small business” as an entity with average gross revenues of \$15 million for each of the three preceding years.²⁰⁸ The SBA has approved these definitions.²⁰⁹ The Commission auctioned geographic area licenses in the WCS service. In the auction, which was conducted in 1997, there were seven bidders that won 31 licenses that qualified as very small business entities, and one bidder that won one license that qualified as a small business entity.

64. **1670-1675 MHz Band.** An auction for one license in the 1670-1675 MHz band was conducted in 2003. The Commission defined a “small business” as an entity with attributable average annual gross revenues of not more than \$40 million for the preceding three years and thus would be eligible for a 15 percent discount on its winning bid for the 1670-1675 MHz band license. Further, the Commission defined a “very small business” as an entity with attributable average annual gross revenues of not more than \$15 million for the preceding three years and thus would be eligible to receive a 25 percent discount on its winning bid for the 1670-1675 MHz band license. One license was awarded. The winning bidder was not a small entity.

65. **3650–3700 MHz band.** In March 2005, the Commission released a *Report and Order and Memorandum Opinion and Order* that provides for nationwide, non-exclusive licensing of terrestrial operations, utilizing contention-based technologies, in the 3650 MHz band (*i.e.*, 3650–3700 MHz).²¹⁰ As of April 2010, more than 1270 licenses have been granted and more than 7433 sites have been registered. The Commission has not developed a definition of small entities applicable to 3650–3700 MHz band nationwide, non-exclusive licensees. However, we estimate that the majority of these licensees are Internet Access Service Providers (ISPs) and that most of those licensees are small businesses.

66. **24 GHz – Incumbent Licensees.** This analysis may affect incumbent licensees who were relocated to the 24 GHz band from the 18 GHz band, and applicants who wish to provide services in the 24 GHz band. The applicable SBA small business size standard is that of “Cellular and Other

²⁰⁵ See generally *Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, PP Docket No. 93-253, Fourth Report and Order, 9 FCC Rcd 2330 (1994).

²⁰⁶ See generally *Amendment of Part 95 of the Commission’s Rules to Provide Regulatory Flexibility in the 218-219 MHz Service*, WT Docket No. 98-169, Report and Order and Memorandum Opinion and Order, 15 FCC Rcd 1497 (1999) (*218-219 MHz Report and Order and Memorandum Opinion and Order*).

²⁰⁷ See *id.*

²⁰⁸ *Amendment of the Commission’s Rules to Establish Part 27, the Wireless Communications Service (WCS)*, GN Docket No. 96-228, Report and Order, 12 FCC Rcd 10785, 10879 para. 194 (1997).

²⁰⁹ See Letter from Aida Alvarez, Administrator, SBA, to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC (Dec. 2, 1998) (*Alvarez Letter 1998*).

²¹⁰ The service is defined in section 90.1301 *et seq.* of the Commission’s Rules, 47 C.F.R. § 90.1301 *et seq.*

Wireless Telecommunications” companies. This category provides that such a company is small if it employs no more than 1,500 persons.²¹¹ We believe that there are only two licensees in the 24 GHz band that were relocated from the 18 GHz band, Teligent²¹² and TRW, Inc. It is our understanding that Teligent and its related companies have less than 1,500 employees, though this may change in the future. TRW is not a small entity. Thus, only one incumbent licensee in the 24 GHz band is a small business entity.

67. **24 GHz – Future Licensees.** With respect to new applicants in the 24 GHz band, the size standard for “small business” is an entity that, together with controlling interests and affiliates, has average annual gross revenues for the three preceding years not in excess of \$15 million.²¹³ “Very small business” in the 24 GHz band is an entity that, together with controlling interests and affiliates, has average gross revenues not exceeding \$3 million for the preceding three years.²¹⁴ The SBA has approved these small business size standards.²¹⁵ These size standards will apply to a future 24 GHz license auction, if held.

68. **Satellite Telecommunications.** Since 2007, the SBA has recognized satellite firms within this revised category, with a small business size standard of \$15 million.²¹⁶ The most current Census Bureau data are from the economic census of 2007, and we will use those figures to gauge the prevalence of small businesses in this category. Those size standards are for the two census categories of “Satellite Telecommunications” and “Other Telecommunications.” Under the “Satellite Telecommunications” category, a business is considered small if it had \$15 million or less in average annual receipts.²¹⁷ Under the “Other Telecommunications” category, a business is considered small if it had \$25 million or less in average annual receipts.²¹⁸

69. The first category of Satellite Telecommunications “comprises establishments primarily engaged in providing point-to-point telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications.”²¹⁹ For this category, Census Bureau data for 2007 show that there were a total of 512 firms that operated for the entire year.²²⁰ Of this total, 464 firms had annual receipts of under \$10 million, and 18 firms had receipts of \$10 million to

²¹¹ See 13 C.F.R. § 121.201, NAICS code 517210.

²¹² Teligent acquired the DEMS licenses of FirstMark, the only licensee other than TRW in the 24 GHz band whose license has been modified to require relocation to the 24 GHz band.

²¹³ See *Amendments to Parts 1, 2, 87 and 101 of the Commission’s Rules to License Fixed Services at 24 GHz*, WT Docket No. 99-327, Report and Order, 15 FCC Rcd 16934, 16967 para. 77 (2000); see also 47 C.F.R. § 101.538(a)(2).

²¹⁴ See *Amendments to Parts 1, 2, 87 and 101 of the Commission’s Rules to License Fixed Services at 24 GHz*, WT Docket No. 99-327, Report and Order, 15 FCC Rcd 16934, 16967 para. 77 (2000); see also 47 C.F.R. § 101.538(a)(1).

²¹⁵ See Letter to Margaret W. Wiener, Deputy Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC, from Gary M. Jackson, Assistant Administrator, SBA (July 28, 2000).

²¹⁶ See 13 C.F.R. § 121.201, NAICS code 517410.

²¹⁷ *Id.*

²¹⁸ See 13 C.F.R. § 121.201, NAICS code 517919.

²¹⁹ U.S. Census Bureau, 2007 NAICS Definitions, “517410 Satellite Telecommunications”.

²²⁰ See 13 C.F.R. § 121.201, NAICS code 517410.

\$24,999,999.²²¹ Consequently, we estimate that the majority of Satellite Telecommunications firms are small entities that might be affected by rules adopted pursuant to the FNPRM.

70. The second category of Other Telecommunications “primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems. Establishments providing Internet services or voice over Internet protocol (VoIP) services via client-supplied telecommunications connections are also included in this industry.”²²² For this category, Census Bureau data for 2007 show that there were a total of 2,383 firms that operated for the entire year.²²³ Of this total, 2,346 firms had annual receipts of under \$25 million.²²⁴ Consequently, we estimate that the majority of Other Telecommunications firms are small entities that might be affected by our action.

71. **Cable and Other Program Distribution.** Since 2007, these services have been defined within the broad economic census category of Wired Telecommunications Carriers; that category is defined as follows: “This industry comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies.”²²⁵ The SBA has developed a small business size standard for this category, which is: all such firms having 1,500 or fewer employees.²²⁶ According to Census Bureau data for 2007, there were a total of 955 firms in this previous category that operated for the entire year.²²⁷ Of this total, 939 firms had employment of 999 or fewer employees, and 16 firms had employment of 1000 employees or more.²²⁸ Thus, under this size standard, the majority of firms can be considered small and may be affected by rules adopted pursuant to the FNPRM.

72. **Cable Companies and Systems.** The Commission has developed its own small business size standards, for the purpose of cable rate regulation. Under the Commission’s rules, a “small cable company” is one serving 400,000 or fewer subscribers, nationwide.²²⁹ Industry data indicate that, of

²²¹ See *id.* An additional 38 firms had annual receipts of \$25 million or more.

²²² U.S. Census Bureau, 2007 NAICS Definitions, “517919 Other Telecommunications”, <http://www.census.gov/naics/2007/def/ND517919.HTM>.

²²³ See 13 C.F.R. § 121.201, NAICS code 517919.

²²⁴ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, Table 5, “Establishment and Firm Size: Employment Size of Firms for the United States: 2007 NAICS Code 517919” (issued Nov. 2010).

²²⁵ U.S. Census Bureau, 2007 NAICS Definitions, “517110 Wired Telecommunications Carriers” (partial definition), <http://www.census.gov/naics/2007/def/ND517110.HTM#N517110>.

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²²⁷ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, Table 5, Employment Size of Firms for the United States: 2007, NAICS code 5171102 (issued Nov. 2010).

²²⁸ See *id.*

²²⁹ See 47 C.F.R. § 76.901(e). The Commission determined that this size standard equates approximately to a size standard of \$100 million or less in annual revenues. See *Implementation of Sections of the 1992 Cable Television Consumer Protection and Competition Act: Rate Regulation*, MM Docket Nos. 92-266, 93-215, Sixth Report and Order and Eleventh Order on Reconsideration, 10 FCC Rcd 7393, 7408 para. 28 (1995).

1,076 cable operators nationwide, all but eleven are small under this size standard.²³⁰ In addition, under the Commission's rules, a "small system" is a cable system serving 15,000 or fewer subscribers.²³¹ Industry data indicate that, of 7,208 systems nationwide, 6,139 systems have under 10,000 subscribers, and an additional 379 systems have 10,000-19,999 subscribers.²³² Thus, under this second size standard, most cable systems are small and may be affected by rules adopted pursuant to the FNPRM.

73. **Cable System Operators.** The Act also contains a size standard for small cable system operators, which is "a cable operator that, directly or through an affiliate, serves in the aggregate fewer than 1 percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed \$250,000,000."²³³ The Commission has determined that an operator serving fewer than 677,000 subscribers shall be deemed a small operator, if its annual revenues, when combined with the total annual revenues of all its affiliates, do not exceed \$250 million in the aggregate.²³⁴ Industry data indicate that, of 1,076 cable operators nationwide, all but ten are small under this size standard.²³⁵ We note that the Commission neither requests nor collects information on whether cable system operators are affiliated with entities whose gross annual revenues exceed \$250 million,²³⁶ and therefore we are unable to estimate more accurately the number of cable system operators that would qualify as small under this size standard.

74. **Open Video Services.** The open video system ("OVS") framework was established in 1996, and is one of four statutorily recognized options for the provision of video programming services by local exchange carriers.²³⁷ The OVS framework provides opportunities for the distribution of video programming other than through cable systems. Because OVS operators provide subscription services,²³⁸ OVS falls within the SBA small business size standard covering cable services, which is "Wired Telecommunications Carriers."²³⁹ The SBA has developed a small business size standard for this

²³⁰ These data are derived from R.R. BOWKER, BROADCASTING & CABLE YEARBOOK 2006, "Top 25 Cable/Satellite Operators," pages A-8 & C-2 (data current as of June 30, 2005); WARREN COMMUNICATIONS NEWS, TELEVISION & CABLE FACTBOOK 2006, "Ownership of Cable Systems in the United States," pages D-1805 to D-1857.

²³¹ See 47 C.F.R. § 76.901(c).

²³² WARREN COMMUNICATIONS NEWS, TELEVISION & CABLE FACTBOOK 2006, "U.S. Cable Systems by Subscriber Size," page F-2 (data current as of Oct. 2005). The data do not include 718 systems for which classifying data were not available.

²³³ 47 U.S.C. § 543(m)(2); see also 47 C.F.R. § 76.901(f) & nn.1-3.

²³⁴ 47 C.F.R. § 76.901(f); see *FCC Announces New Subscriber Count for the Definition of Small Cable Operator*, Public Notice, 16 FCC Rcd 2225 (Cable Services Bureau 2001).

²³⁵ These data are derived from R.R. BOWKER, BROADCASTING & CABLE YEARBOOK 2006, "Top 25 Cable/Satellite Operators," pages A-8 & C-2 (data current as of June 30, 2005); WARREN COMMUNICATIONS NEWS, TELEVISION & CABLE FACTBOOK 2006, "Ownership of Cable Systems in the United States," pages D-1805 to D-1857.

²³⁶ The Commission does receive such information on a case-by-case basis if a cable operator appeals a local franchise authority's finding that the operator does not qualify as a small cable operator pursuant to section 76.901(f) of the Commission's rules.

²³⁷ 47 U.S.C. § 571(a)(3)-(4). See *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, MB Docket No. 06-189, Thirteenth Annual Report, 24 FCC Rcd 542, 606 para. 135 (2009) ("*Thirteenth Annual Cable Competition Report*").

²³⁸ See 47 U.S.C. § 573.

²³⁹ U.S. Census Bureau, 2007 NAICS Definitions, "517110 Wired Telecommunications Carriers"; <http://www.census.gov/naics/2007/def/ND517110.HTM#N517110>.

category, which is: all such firms having 1,500 or fewer employees. According to Census Bureau data for 2007, there were a total of 955 firms in this previous category that operated for the entire year.²⁴⁰ Of this total, 939 firms had employment of 999 or fewer employees, and 16 firms had employment of 1000 employees or more.²⁴¹ Thus, under this second size standard, most cable systems are small and may be affected by rules adopted pursuant to the Notice. In addition, we note that the Commission has certified some OVS operators, with some now providing service.²⁴² Broadband service providers (“BSPs”) are currently the only significant holders of OVS certifications or local OVS franchises.²⁴³ The Commission does not have financial or employment information regarding the entities authorized to provide OVS, some of which may not yet be operational. Thus, again, at least some of the OVS operators may qualify as small entities.

75. **Internet Service Providers.** Since 2007, these services have been defined within the broad economic census category of Wired Telecommunications Carriers; that category is defined as follows: “This industry comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies.”²⁴⁴ The SBA has developed a small business size standard for this category, which is: all such firms having 1,500 or fewer employees.²⁴⁵ According to Census Bureau data for 2007, there were 3,188 firms in this category, total, that operated for the entire year.²⁴⁶ Of this total, 3,144 firms had employment of 999 or fewer employees, and 44 firms had employment of 1000 employees or more.²⁴⁷ Thus, under this size standard, the majority of firms can be considered small. In addition, according to Census Bureau data for 2007, there were a total of 396 firms in the category Internet Service Providers (broadband) that operated for the entire year.²⁴⁸ Of this total, 394 firms had employment of 999 or fewer employees, and two firms had employment of 1000 employees or more.²⁴⁹ Consequently, we estimate that the majority of these firms are small entities that may be affected by rules adopted pursuant to the FNPRM.

76. **Internet Publishing and Broadcasting and Web Search Portals.** Our action may pertain to interconnected VoIP services, which could be provided by entities that provide other services such as email, online gaming, web browsing, video conferencing, instant messaging, and other, similar

²⁴⁰ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, Table 5, Employment Size of Firms for the United States: 2007, NAICS code 5171102 (issued Nov. 2010).

²⁴¹ *See id.*

²⁴² A list of OVS certifications may be found at <http://www.fcc.gov/mb/ovs/csovsr.html>.

²⁴³ *See Thirteenth Annual Cable Competition Report*, 24 FCC Rcd at 606-07 para. 135. BSPs are newer firms that are building state-of-the-art, facilities-based networks to provide video, voice, and data services over a single network.

²⁴⁴ U.S. Census Bureau, 2007 NAICS Definitions, “517110 Wired Telecommunications Carriers” (partial definition), <http://www.census.gov/naics/2007/def/ND517110.HTM#N517110>.

²⁴⁵ 13 C.F.R. § 121.201, NAICS code 517110.

²⁴⁶ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, Table 5, “Establishment and Firm Size: Employment Size of Firms for the United States: 2007 NAICS Code 517110” (issued Nov. 2010).

²⁴⁷ *See id.*

²⁴⁸ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, Table 5, Employment Size of Firms for the United States: 2007, NAICS code 5171103 (issued Nov. 2010).

²⁴⁹ *See id.*

IP-enabled services. The Commission has not adopted a size standard for entities that create or provide these types of services or applications. However, the Census Bureau has identified firms that “primarily engaged in 1) publishing and/or broadcasting content on the Internet exclusively or 2) operating Web sites that use a search engine to generate and maintain extensive databases of Internet addresses and content in an easily searchable format (and known as Web search portals).”²⁵⁰ The SBA has developed a small business size standard for this category, which is: all such firms having 500 or fewer employees.²⁵¹ According to Census Bureau data for 2007, there were 2,705 firms in this category that operated for the entire year.²⁵² Of this total, 2,682 firms had employment of 499 or fewer employees, and 23 firms had employment of 500 employees or more.²⁵³ Consequently, we estimate that the majority of these firms are small entities that may be affected by rules adopted pursuant to the FNPRM.

77. **Data Processing, Hosting, and Related Services.** Entities in this category “primarily ... provid[e] infrastructure for hosting or data processing services.”²⁵⁴ The SBA has developed a small business size standard for this category; that size standard is \$25 million or less in average annual receipts.²⁵⁵ According to Census Bureau data for 2007, there were 8,060 firms in this category that operated for the entire year.²⁵⁶ Of these, 7,744 had annual receipts of under \$ \$24,999,999.²⁵⁷ Consequently, we estimate that the majority of these firms are small entities that may be affected by rules adopted pursuant to the FNPRM.

78. **All Other Information Services.** The Census Bureau defines this industry as including “establishments primarily engaged in providing other information services (except news syndicates, libraries, archives, Internet publishing and broadcasting, and Web search portals).”²⁵⁸ Our action pertains to interconnected VoIP services, which could be provided by entities that provide other services such as email, online gaming, web browsing, video conferencing, instant messaging, and other, similar IP-enabled services. The SBA has developed a small business size standard for this category; that size standard is \$7.0 million or less in average annual receipts.²⁵⁹ According to Census Bureau data for 2007, there were 367 firms in this category that operated for the entire year.²⁶⁰ Of these, 334 had annual receipts of under \$5.0 million, and an additional 11 firms had receipts of between \$5 million and \$9,999,999.

²⁵⁰ U.S. Census Bureau, “2007 NAICS Definitions: 519130 Internet Publishing and Broadcasting and Web Search Portals,” <http://www.naics.com/censusfiles/ND519130.HTM>.

²⁵¹ See 13 C.F.R. § 121.201, NAICS code 519130.

²⁵² U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, Table 5, “Establishment and Firm Size: Employment Size of Firms for the United States: 2007 NAICS Code 519130” (issued Nov. 2010).

²⁵³ *Id.*

²⁵⁴ U.S. Census Bureau, “2007 NAICS Definitions: 518210 Data Processing, Hosting, and Related Services”, <http://www.census.gov/naics/2007/def/NDEF518.HTM>.

²⁵⁵ See 13 C.F.R. § 121.201, NAICS code 518210.

²⁵⁶ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, Table 4, “Establishment and Firm Size: Receipts Size of Firms for the United States: 2007 NAICS Code 518210” (issued Nov. 2010).

²⁵⁷ *Id.*

²⁵⁸ U.S. Census Bureau, “2007 NAICS Definitions: 519190 All Other Information Services”, <http://www.census.gov/naics/2007/def/ND519190.HTM>.

²⁵⁹ See 13 C.F.R. § 121.201, NAICS code 519190.

²⁶⁰ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, Table 4, “Establishment and Firm Size: Receipts Size of Firms for the United States: 2007 NAICS Code 519190” (issued Nov. 2010).

Consequently, we estimate that the majority of these firms are small entities that may be affected by our action.

D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

79. In this FNPRM, the Commission seeks public comment on additional steps to complete its comprehensive universal service and intercarrier compensation reform. The transition to complete the reform of the universal service programs and new intercarrier compensation rules could affect all carriers, including small entities, and may include new administrative processes. In proposing these reforms, the Commission seeks comment on various reporting, recordkeeping, and other compliance requirements that may apply to all carriers, including small entities. We seek comment on any costs and burdens on small entities associated with the proposed ruled, including data quantifying the extent of those costs or burdens.

1. Universal Service

80. In the Order, the Commission adopts a rule requiring that actual speed and latency be measured on each ETCs access network from the end-user interface to the nearest Internet access point, as well as a rule that requires ETCs to certify to and report the results to USAC on an annual basis. In this FNPRM, the Commission seeks comment on whether the Commission should adopt a specific measurement methodology beyond what is described in the Order and the format in which ETCs should report their results. Specifically, the Commission seeks comment on whether we should specify a uniform reporting format, such as a format that can be produced to the Universal Service Administrative Company (“USAC”) and auditable such that USAC or the state commissions may confirm that a provider is, in fact, providing broadband at the required minimum speeds. The Commission also seeks comment on whether providers should be required to provide the underlying raw measurement data to USAC and, if so, whether there are legitimate concerns with the confidentiality of such data. In the alternative, the Commission seeks comment on whether it would be sufficient to have a provider certify to USAC that its network is satisfying the minimum broadband metrics and retain the results of its own performance measurement to be produced on request in the course of possible future audits.

81. In the Order, the Commission also directs the Wireline Competition Bureau and Wireless Telecommunications Bureau to develop and conduct a survey of voice and broadband rates in order to compare urban and rural voice and broadband rates. In this FNPRM, the Commission seeks comment on the components of the survey.

82. In this FNPRM, we seek comment on the Rural Association’s proposed creation of a new broadband-focused CAF mechanism that ultimately would entirely replace existing support mechanisms for rate-of-return carriers. We seek comment on what information we would need to require from carriers in order to evaluate and implement this proposal.

83. Under the Order, rate-of-return carriers will continue to receive for some time a modified version of their legacy universal service support. In this FNPRM, we seek comment on the appropriate data and methodologies the Commission should use to calculate the weighted average cost of capital used to identify the rate-of-return required to maintain the current value of a firm.

84. The Commission proposes to apply to recipients of Mobility Fund Phase II support, CAF support, and Remote Areas Fund support the same rules for accountability and oversight. Thus recipients of USF support through any of these funding mechanisms would be required to meet the same reporting, audit, and record retention requirements. Because of differences between Mobility Fund support and other USF high cost support mechanisms, the Commission proposes that Mobility Fund Phase II support recipients include the same additional information in their annual reports as Mobility Fund Phase I support recipients. This information includes maps with service area and population information, linear road mile coverage, and drive test data, as well as updated project information. To minimize waste, fraud,

and abuse, the Commission proposes to require individuals who are eligible for CAF support for remote areas to certify that they are eligible and periodically verify their continued eligibility.

85. Where the Commission uses competitive bidding to award Mobility Fund II support, support in areas where the price cap ETC declines to make a state-level commitment, or support for remote areas, the Commission proposes to use a two-stage application process, including ownership disclosure requirements, similar to that used in spectrum auctions and adopted for Mobility Fund Phase I.

86. The Commission also seeks comment in the FNPRM on whether there are specific requirements in the existing annual reporting rule for ETCs that should be modified to reflect basic differences in the nature and purpose of the support provided for mobile services. The Commission further seeks comment on any other aspects of its annual reporting requirements that should be modified to better reflect the nature of mobile services being offered and the objectives of the USF support provided for them.

2. Intercarrier Compensation

87. In the FNPRM, the Commission seeks comment and data on issues that must be addressed to complete its comprehensive reform of the intercarrier compensation system. These issues include the appropriate path or transition to modernize the existing rules as needed to bring all intercarrier compensation to the ultimate end point of bill-and-keep, if and how carriers should be allowed to recover revenues that might be reduced by any additional intercarrier compensation reforms, and data to analyze the effects of proposed reforms and need for revenue recovery.

88. Compliance with a transition to a new system for all intercarrier compensation may impact some small entities and may include new or reduced administrative processes. For carriers that may be affected, obligations may include certain reporting and recordkeeping requirements to determine and establish their eligibility to receive recovery from other sources as intercarrier compensation rates are reduced. Additionally, these carriers may need to modify some administrative processes relating to the billing and collection of intercarrier compensation to comply with any new or revised rules the Commission adopts as a result of the FNPRM.

89. Modifications to the rules to address potential arbitrage opportunities or additional call signaling rules for VoIP traffic also will affect certain carriers, potentially including small entities. To the extent that the Commission further modifies the rules adopted in the Order as a result of the FNPRM, providers might be required to modify or adopt administrative, recordkeeping, or other processes to implement those changes. Moreover, the FNPRM considers possible rule modifications to require IP-to-IP interconnection, which may require service providers to modify some administrative processes. Further, possible rule modifications to address potential arbitrage, if adopted, may affect certain carriers. For example, carriers that engage in such arbitrage may be subject to revised tariff filing or other requirements. However, these impacts are mitigated by the certainty and reduced litigation that should occur as a result of the reforms adopted, including arbitrage loopholes that the Commission has closed in the Order.

E. Steps Taken to Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered

90. The RFA requires an agency to describe any significant, specifically small business, alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): “(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance and reporting requirements under the rules for such small entities; (3) the use of performance rather than design standards; and (4) an exemption from coverage of

the rule, or any part thereof, for such small entities.”²⁶¹

91. The FNPRM seeks comment from all interested parties. The Commission is aware that some of the proposals under consideration may impact small entities. Small entities are encouraged to bring to the Commission’s attention any specific concerns they may have with the proposals outlined in the FNPRM.

92. The Commission expects to consider the economic impact on small entities, as identified in comments filed in response to the FNPRM, in reaching its final conclusions and taking action in this proceeding. The reporting, recordkeeping, and other compliance requirements in the FNPRM could have an impact on both small and large entities. The Commission believes that any impact of such requirements is outweighed by the accompanying public benefits. Further, these requirements are necessary to ensure that the statutory goals of Section 254 of the Act are met without waste, fraud, or abuse.

93. In the FNPRM, the Commission seeks comment on several issues and measures that may apply to small entities in a unique fashion. Specifically, the FNPRM seeks comment on whether small businesses should be eligible for a bidding preference if competitive bidding is used to provide Mobility Fund Phase II support, support in areas where the price cap ETC declines to make a state-level commitment, or support for remote areas. Entities seeking the small business bidding preference would be required to provide information about their gross revenues. The Commission believes that the benefits to small businesses of a bidding preference, if adopted, would significantly outweigh the burden of any additional information disclosure requirements. In addition, the Commission seeks comment on the data it will need to complete its represcription of the authorized interstate rate of return. Although data is requested from the industry generally, small carriers may be differently affected by the ultimate prescription of a new rate of return.

94. The FNPRM seeks comment on several issues relating to bill-and-keep implementation, including how points of interconnection obligations will function for rural and non-incumbent LECs,²⁶² definition of the network edge,²⁶³ and the future role of tariffs and interconnection agreements.²⁶⁴ The Commission also seeks comment on the appropriate sequence and timing of intercarrier rate reductions for those rate elements not covered by its Order adopting of bill-and-keep as the ultimate end-point for reform, particularly for originating switched access, dedicated transport, tandem switching and tandem transport in some circumstances.²⁶⁵ The Commission seeks comment on the potential impact to small entities of reduced intercarrier rates for these additional rate elements, including whether a different transition period might be appropriate for particular classes of carriers.

95. The FNPRM also seeks comment on how recovery of reduced intercarrier compensation revenues in the future would impact carriers, and how recovery, if any, for those reduced revenues should be addressed.²⁶⁶ The Commission asks if the recovery approach adopted should be different depending on the type of carrier or regulation.²⁶⁷ The Commission also invites comment on specific recovery considerations for rate-of-return carriers and whether any cost or revenue recovery mechanism could

²⁶¹ 5 U.S.C. § 603(c)(1)–(c)(4).

²⁶² See *supra* para. 1317.

²⁶³ See *supra* paras. 1320-1321.

²⁶⁴ See *supra* paras. 1312-1314.

²⁶⁵ See *supra* Section XVII.M.

²⁶⁶ See *supra* para. 1326.

²⁶⁷ See *supra* Section XVII.N.

provide rate-of-return carriers with greater incentives for efficient operation.²⁶⁸

96. Finally, the Commission seeks comment on whether separate consideration for small entities is necessary or appropriate for each of the following issues discussed in the FNPRM: the potential impact of additional call signaling rules governing VoIP traffic;²⁶⁹ the potential impact of rules relating to potential future arbitrage, including revised tariff-filing requirements;²⁷⁰ and the potential impact of rules relating to IP-to-IP interconnection and related issues.²⁷¹ Specifically with regard to the IP-to-IP interconnection, the FNPRM seeks comment on the scope of traffic exchange that should be included, responsibility for costs of IP-to-TDM conversions, and the statutory framework and appropriate scope of any IP-to-IP interconnection obligation.²⁷²

F. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules

97. None.

²⁶⁸ See *supra* Section XVII.P.

²⁶⁹ See *supra* Section XVII.Q.

²⁷⁰ See *supra* para. 1325.

²⁷¹ See *supra* Section XVII.P.4

²⁷² *Id.*

**STATEMENT OF
CHAIRMAN JULIUS GENACHOWSKI**

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; *Mobility Fund*, WT Docket No. 10-208

Today, we take a momentous step in our efforts to harness the benefits of broadband Internet for every American.

I am tremendously grateful to each of my colleagues for working hard and working together to get us here.

This is a once-in-a-generation overhaul of universal service, keeping faith with the nation's long commitment to connecting all Americans to communications services.

We are taking a system designed for the Alexander Graham Bell era of rotary telephones and modernizing it for the era of Steve Jobs and the Internet future he imagined.

We are reaffirming for the digital age the fundamental American promise of opportunity for all.

We are furthering our national goal of connecting the country to wired and wireless broadband.

And we are helping put America on its proper 21st century footing, positioning us to lead the world in a fiercely competitive global digital economy.

Infrastructure has always been a key pillar of American economic success, with telephone and other infrastructure connecting consumers and businesses, facilitating commerce, and unleashing innovation. Broadband is the indispensable infrastructure of our 21st century economy.

Recognizing this fact, for years, respected voices have called universal broadband an essential ingredient for American economic competitiveness and job creation. In its 2007 report *Rising Above the Gathering Storm*, the National Academy of Sciences said that “[a]ccelerating progress toward making broadband connectivity available and affordable for all is critical” and urged government to “take the necessary steps to meet that goal.” Our National Broadband Plan correctly called extending wired and wireless broadband to all Americans the “great infrastructure challenge of the 21st century.” And last year, IBM CEO Sam Palmisano expressed a view from CEOs, governors, mayors, and consumers. He implored policymakers to “fix the bridges, but don’t forget broadband,” and said that “a pervasive broadband infrastructure would be a powerful generator of new jobs and economic growth.”

Today, building on years of hard work by the FCC and on Capitol Hill, this Commission is acting unanimously – and on a bipartisan basis – to meet this critical national challenge, and bring the Universal Service Fund and intercarrier compensation system into the broadband age.

Our action will enable millions more Americans to work, learn and innovate online. It will open new vistas of digital opportunity, and enhance public safety. It will create jobs in the near term, and lay

the foundation for enduring job creation, economic growth, and U.S. global competitiveness for years to come.

Today's reforms of the multi-billion dollar Universal Service Fund will bring real benefits to consumers and communities in every part of the country.

Over the next year, the Connect America Fund will bring broadband to more than 600,000 Americans who wouldn't have it otherwise. Over the following five years, millions more rural families will be connected. And today's Order puts us on the path to get broadband to every American by the end of the decade – to close the broadband deployment gap which now stands at close to twenty million Americans.

We are also extending the benefits of mobile broadband coverage to tens of thousands of unserved road-miles, areas where millions of Americans work, live, and travel. These are areas of frustration and economic stagnation for so many people – where mobile connections are needed but unavailable, where small businesses lose out on customers and productivity, and where people in traffic accidents can't reach 9-1-1.

Today, we make mobility an independent universal service objective for the first time, providing dedicated support through the world's first Mobility Fund. Over the next three years, we will provide almost \$1 billion in funding per year for universal mobility.

Mobile is one of the fastest-growing and most promising sectors of our economy, and having the world's largest market for 3G and 4G subscribers will be a key competitive advantage enabling us to lead the world in mobile innovation.

New wired and wireless broadband will be a lifeline for rural communities currently being bypassed by the Internet revolution. Young people who didn't see a future in their small hometowns will now be able to access a new world of opportunity. Entrepreneurs in small towns won't need to move to the big city to live their dreams; instead, small business owners doing everything from selling beef to starting hunting lodges – like residents I met in Nebraska wanted to do – will be able to reach customers in the next town, city, state or country, and boost their efficiency and productivity through cloud-based services.

Today's action will empower small businesses that otherwise couldn't exist in small-town America, and create new jobs in those communities.

This includes farmers, who need broadband to access commodity pricing, crop information, real-time weather reports, and online auctions. During our process, we heard this directly from farmers in rural America.

Today's action will help connect anchor institutions, which can play a vital role – for example, in expanding basic digital literacy training – in a world where broadband skills are necessary to find and land jobs.

Today's action has the potential to be one of the biggest job creators in rural America in decades. We estimate that the Order as a whole will unleash billions in private sector broadband infrastructure spending in rural America over the next decade, creating hundreds of thousands of jobs. And by empowering millions more Americans to engage in e-commerce – as buyers and sellers – the Order will grow the size of our overall online marketplace and provide a boost for Main Street businesses across the country.

Today's action will change the landscape for students who are now unserved by broadband – providing educational opportunity that would otherwise be denied.

In now-unserved areas, it will change the landscape for seniors and people with illnesses – providing remote diagnostics and treatment to people who would otherwise have no access or would have to travel for hundreds of miles to get care.

And it will enable parents in now-unserved areas to finally connect with their children in military service overseas through video chat or other modern communications means that require broadband.

By constraining the growth of existing programs, today's reforms will also minimize the burden those programs place on all consumers, keeping hundreds of millions of dollars in consumers' pockets over the next several years. Our overhaul of the intercarrier compensation system will gradually eliminate the billions of dollars in hidden subsidies currently paid by consumers across the country through their wireless and long distance phone bills. Our staff estimates that the consumer benefits of ICC reform will be more than \$2 billion annually. Consumers will get more value for their money and less waste.

These material benefits flow directly from the policy principles and structural reforms that we've embraced in this Order.

The reforms implement the idea that government programs should be modernized to focus on the strategic challenges of today and tomorrow, not yesterday. Starting today, USF will be transformed into the Connect America Fund, which will directly take on our country's 21st century infrastructure challenge by enabling the private sector to build robust, scalable, affordable broadband to homes, businesses, and anchor institutions in unserved communities.

Our ICC reforms will also advance the deployment of modern Internet Protocol networks. And as the telephone network transitions to an IP network, the Order affirms our expectation that carriers will negotiate in good faith on IP-to-IP interconnection for voice traffic.

Today's Order also recognizes the growing importance of mobile broadband. As I mentioned, today for the first time we make mobility an independent universal service objective, and take significant concrete steps to meet that objective.

Also a first, today's Order brings market-based competitive bidding into universal service support. In a series of ways, including auctions, we have structured distribution of public funds to ensure real efficiency and accountability in the Connect America Fund.

For the first time, our Order puts the Fund on a firm budget. Fiscal responsibility was a principle we announced on Day One, and we've adhered to that in this Order, protecting the interests of the millions of consumers who contribute into the Fund. And we put in place a series of reforms to eliminate duplicative funding and other funding where it's not needed and can't be justified. We also end arbitrage schemes that take advantage of gaps, closing loopholes in our rules.

Faced with many complex and nuanced policy questions, I believe this Commission has reached the right solutions because we've approached these issues the right way.

We did not rubber stamp or adopt wholesale the proposals of any stakeholder or group of stakeholders. Instead, we made our decisions on what's right for the American people and our economy based on facts and data gathered in one of the most extensive records in FCC history, including hearings

and workshops across the country, and more than 2,700 substantive comments totaling tens of thousands of pages.

We have focused on putting consumers first, calibrating the policies we adopt to maximize consumer benefit. We have been careful to ensure that affected companies have predictable and measured transition paths so they can keep investing in their networks to better serve consumers and support our economy. And we have brought increased clarity to areas of uncertainty created by tensions between new communications services, like VoIP, and old rules.

Getting to this point wasn't easy. It required us to make some tough choices about what the Connect America Fund – and consumers – could and could not support.

Some proposals would have required consumers to pay a greater share of the costs of reform, or increased the size of the Fund. That would have put too much of a burden on consumers during these difficult economic times.

Some said that we should dramatically reduce the size of the Fund – but that would have left behind the millions of Americans being bypassed by broadband and with no prospect of broadband connectivity.

Some would have had us operate as if we were writing on a blank slate – but that would have risked needless consumer disruption, build-out delays, and other unintended and undesirable consequences.

Getting to this point not only required tough choices, it required the engagement of many stakeholders around the country, of our partners in the federal government, the states, Tribal communities, the private sector, and the non-profit and consumer advocacy community. I appreciate the broad level of constructive engagement. That very much includes the many members of Congress, on both sides of the aisle, who have worked for years to reform and improve universal service, and whose ongoing and constructive input is reflected in our action today. There are too many to thank individually, but I am grateful to all of the members of Congress who provided input and guidance.

The President has been a consistent leader on broadband and the opportunities of technology, and our actions today help meet national goals of universal access to wired and wireless broadband.

I also want to thank our state partners, who pioneered many of the reforms we adopt today. Moving forward, I am pleased that the states will continue to play a vital role, including a role in ensuring that consumers are well served by our universal service program.

I'm deeply grateful to my fellow Commissioners, who have worked tremendously hard to make today possible. Commissioners Copps and McDowell have been fighting to fix these programs for years, and Commissioner Clyburn's strong experience at the state level in South Carolina has been invaluable in our efforts. From top to bottom, today's Order reflects the seriousness of purpose and thoughtful input of each of my colleagues on the Commission. It is a better Order as a result, and I thank each of you.

At a time when citizens want solutions, not gridlock, I'm proud that this Commission is approving bipartisan reform of a broken system, reform that will deliver massive benefits for the American people.

This would not have happened without the tremendous work of the staff, without whom we would not have been able to finally accomplish a goal that's been elusive for many years: making reform

a reality. Our staff has not only worked hard, they have performed brilliantly – crunching numbers, mastering complex technologies, and operating at a world-class policy level. Today’s Order is the product of that tremendous effort. I particularly want to thank the leadership team that managed this process: Sharon Gillett, Ruth Milkman, Carol Matthey, Rebekah Goodheart, Jim Schlichting, Michael Steffen, and many others in our Wireline and Wireless Bureaus, our General Counsel’s office, and throughout the agency. I also want to acknowledge the work of the team that developed our National Broadband Plan for laying the groundwork for these reforms. And I want to particularly salute and applaud Zac Katz in my office, the quarterback of our USF and ICC modernization effort. Without your leadership, persistence, and savvy, these reforms simply could not have happened.

Of course, our work is not yet done. We have implementation work ahead, and there will continue to be intensive engagement with all stakeholders in response to the Further Notice of Proposed Rulemaking we adopt today, and in the months to come.

And we still face a tremendous challenge in increasing broadband adoption, an ongoing barrier to opportunity in both rural and urban areas. While there’s no silver bullet, the Lifeline portion of USF is part of the solution – including a significant investment in broadband adoption pilot programs. I’ve asked the staff to gear up Lifeline reform for action this year.

But wait, there’s more. As my colleagues have also noted, there’s work to do on the contribution side. That’s another important USF topic the Commission will address.

I’ll leave you with a closing thought. In the 1930s and 1950s, when Presidents Roosevelt and Eisenhower directed federal funding to roads, tunnels, bridges, and the national highway system, they were investing in then-current technologies to connect our people and our communities. The same was true for electricity and telephone service, also key 20th century universal service achievements. These investments have paid tremendous dividends for our economy and our country.

Broadband Internet truly is the information superhighway – the key connective infrastructure of the 21st century. It’s what will drive our competitiveness, our economy, and broad opportunity for decades to come.

Our action today is firmly rooted in sound principles that have served our country well in the past, and I’m confident it will help deliver a bright future for all Americans.

STATEMENT OF
COMMISSIONER MICHAEL J. COPPS

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; Mobility Fund, WT Docket No. 10-208

A lot of folks bet we couldn't get here today. They said Universal Service was too complicated and Intercarrier Compensation too convoluted ever to permit comprehensive reform. Universal Service was sadly out of step with the times, Intercarrier Comp was broken beyond repair. Yet here we are this morning, making telecommunications history with comprehensive reform of both Universal Service and Intercarrier Compensation. The first thing I want to do is congratulate Chairman Genachowski for the leadership he brought to bear in getting us to a place where no previous Chairman has managed to go. Today, thanks to his leadership, we build a framework to support the Twenty-first century communications infrastructure our consumers, our citizens and our country so urgently need. So mighty praise is due the Chairman, and even those who may take exception to parts of what we approve today will join me in thanking him for his commitment, courage and herculean effort to make this happen.

In the face of the complex systems we modernize today, it is all too easy to forget the simple, timeless goal behind our policies: all of us benefit when more of us are connected. The principle of Universal Service is the life-blood of the Communications Act—a clarion call and a legislative mandate to bring affordable and comparable communications services to *all* Americans—no matter who they are, where they live, or the particular circumstances of their individual lives. So it is altogether fitting as we move away from support designed primarily for voice to support for broadband, that we bear witness to the accomplishments USF has made over the years to connect America with Plain Old Telephone Service. The Fund has achieved truly laudable success. Thanks to both high cost support and low income assistance, we now have voice penetration rates in excess of 95% nationally. No other infrastructure build-out has done so much to bind the nation together. Additionally it has enabled millions of jobs and brought new opportunities to just about every aspect of our lives. Some stark challenges remain, of course, particularly in Native areas. The shocking statistic in Indian Country is a telephone penetration rate that at last report hovers in the high 60th percentile. Getting voice service and broadband to Indian Country and other Native areas is a central challenge to implementing the reforms we launch today. Bringing Universal Service into the Twenty-first century is the only way we can extend the full range of advanced communications services to places those services will not otherwise go.

The big news here, of course, is that Universal Service is finally going broadband. This is something I have advocated for a long, long time. It is something a decade and more overdue and a step that the Joint Board on Universal Service strongly backs. These new tools of advanced communications technologies and services are essential to the prosperity and well-being of our country. They are the essential tools of this generation like the hoe and the plow, the shovel and the saw were to our forebears. No matter if we live in city or hamlet, whether we work in a factory or on a farm, whether we are affluent or economically-disadvantaged, whether we are fully able or living with a disability—*every citizen* has a need for, and a right to, advanced communications services. Access denied is opportunity denied. That applies to us as individuals and as a nation. America can't afford access denied—unless we want to consign ourselves and our children to growing, not shrinking, digital divides. We are already skating around the wrong side of the global digital divide in many ways, when we should have learned by now that the rest of the world is not going to wait for America to catch up. But here's the good news. If we seize the power of this technology, and build it out to every corner of the country and make it truly

accessible to every American, there's no telling what we can accomplish. America would be back at the front of the pack.

The current system, for all the good it accomplished, has outlived its time. It has strayed from what Congress intended and consumers deserve. Inefficiencies and waste crept in where efficiency and ongoing oversight should have been standard operating procedure. As problems arose they were too often minimized or allowed to compound. At best, we settled for band-aids that never managed to stanch the hemorrhage. Sometimes we didn't even try band-aids. And the Commission more than once made things worse by calling communications technologies and services things that they were not, engaging in linguistic exegesis with a fury that even the most intense biblical scholars of old were incapable of achieving. In sum, we lost sight of the original purposes of both the Telecommunications Act of 1996 in general and the Universal Service Fund in particular.

Whatever the causes, and we could debate them for hours, our current USF and Intercarrier Compensation regimes are broken. Legacy access rates encourage carriers to maintain yesterday's technology instead of reaping the benefits of today's IP based networks. The hidden manipulations of intercarrier payments cost consumers billions of dollars each year. We reimburse some carriers for whatsoever they choose to invest in certain parts of their networks, regardless of whether a lesser amount was all that was needed to provide service to their customers. In some areas of the country, we subsidize four or more wireless carriers based on the costs of a wireline network. All of this excess is reflected in inflated monthly rates that consumers pay. The old saying is, "If it ain't broke, don't fix it." Well, it's broken. And we are left with no real option short of a major fix. No tinkering around the edges is capable of putting these systems back on a solid footing.

Some will claim we attempt too much today. But we would not have to overhaul these programs so fundamentally had the Commission been attentive to its duty to address these problems as they arose and worsened through the years. It's not that we didn't see the writing on the wall. Many people did. Years ago, as just one example, I proposed putting Universal Service funds to work supporting broadband build-out, like other countries were doing. Four years ago, four of my colleagues here were ready to vote to put USF on a new broadband footing, including a pilot program for competitive auctions. On Intercarrier Compensation, we four were ready to vote at the same time for lowered rates and an end to traffic pumping and phantom traffic. Commissioner McDowell will remember this well because we worked closely together on it.

What we are doing today is repairing two broken systems and putting in place a more credible and efficient framework that will benefit consumers, carriers and the country. We are approving a framework for allocating limited resources to mitigate serious communications shortfalls. It is a framework that should give all stakeholders a clearer picture of how these systems will work going forward and that will provide predictability for rate-payers, businesses and policy-makers. I would have much preferred a higher budget for the Fund—a budget that I believe consumers would accept because of its importance to putting the nation back to work and providing our kids with the tools they need for their futures. That being said, we set out down a good and welcome road here with steps that will make a huge difference, and that is why I am able to approve the item even though it is not, in several respects that would come as a surprise no one, the precise item I would have written.

Our focus is on support targeting the unserved areas that need it most. There is much to be said for this approach at this time because of the harsh budget realities the nation faces and because of the perceived need to limit Universal Service, but I hope and expect that our actions today will have spill-over effects in *under-served* areas, too—because America won't be broadband-sufficient until the under-served become fully-served, too. Inner cities can be just as handicapped as more remote regions. Here, too, access denied is opportunity denied. So I welcome the new approach that takes us from scatter-gun

support of voice based largely on the size of carriers and focuses instead on where private investment for broadband refuses to go. This means targeting money for areas where consumers would not otherwise have service, and I believe this is the first time we can really say that about the Fund.

Acting on another long standing recommendation of the Joint Board, we are for the first time creating a specific funding mechanism to support mobility. This is an historic accomplishment. Clearly there are areas—many areas—where mobile broadband providers are doing very well in delivering services and profiting handsomely and where support isn't needed. But there are other areas that are strangers to reliable mobile voice coverage and where the market will otherwise not go.

The mechanism through which we propose to do this—reverse auctions—is a new tool for the Commission. While we have considerable experience with spectrum auctions, this is in many ways a new species of auction and we will need to be very careful in how we approach and evaluate it. I hope it will live up to the high expectations parties have for it and truly become an efficient way to expend our limited USF dollars to reach unserved areas. I expect we will learn a lot from the first such auction and apply those lessons to the future. Let me also say how much I appreciate the item's prohibition on nation-wide package bidding in the Mobility Fund. I believe this is an important safeguard against gamesmanship and even further consolidation in the industry and that it can only redound to the benefit of rural consumers.

I am also pleased that we are adopting another safeguard to encourage stability during the transition to the new regime for mobile support. The course we adopt today has two auction phases, with the second installment of mobility support dependent upon further Commission decision-making. Understanding the need for maximum predictability throughout these transitions, we will halt reductions in legacy support if for some unlikely and unanticipated reason the second auction phase does not take place as planned.

Given the financial constraints we impose on USF, I also am pleased we were able to grow the Mobility Fund from the initial proposal. I would have supported, and I actively encouraged, a larger number given the scope of the challenges we face, but the increase can at least be seen as an important down-payment on further deployment. I appreciate the Chairman's support for this and particularly commend the leadership of my friend Commissioner Clyburn.

I am also encouraged that we launch a Tribal Mobility Fund specifically to target support for mobile service in Tribal areas. The state of broadband in Indian Country is a national disgrace—somewhere in the embarrassingly low single digits. Again, getting this right will take more money than is being proposed in today's proceedings, but it also hinges on more than money alone. It hinges also on the Commission taking prompt action on other proceedings and spectrum issues pending before us. Even in addition to all this, there are a host of confidence-building and cooperation-building challenges confronting us. I do believe the current Commission is on the right path to rebuilding our consultative mechanisms with Native Nations. We have new dialogues taking place, new inputs being shared, and new commitments to work together. We are also moving toward a fuller appreciation of what tribal sovereignty means and of the need to accord tribes the fuller and more active role they must have in order to ensure the best and most appropriate deployment and adoption strategies for their areas and populations. I feel encouraged that we are at long last positioning ourselves to make progress by working more closely and creatively together. The sad history here, as we all know, is many promises made, many promises broken. We need to turn the page, and I think we are beginning to do that now.

I also applaud the strong-build out benchmarks that will be a condition of receiving Mobility Fund dollars, and indeed support from any of our new programs, with meaningful enforcement and clawback consequences if providers do not meet their obligations to consumers. This injects much-

needed discipline into the system. It is another really important component of our actions today and, strongly enforced, one that will inspire more confidence in the new system than we ever had in the old.

Today is also historic because we finally take on the challenge of Intercarrier Compensation. We take meaningful steps to transform what is badly, sadly broken. This item puts the brakes on the arbitrage and gamesmanship that have plagued ICC for years and that have diverted private capital away from real investment in real networks. By some estimates, access stimulation costs nearly half a billion dollars a year, and phantom traffic affects nearly one fifth of the traffic on carriers' networks. Today, we say "no more." We adopt rules to address these arbitrage schemes head on. And, very importantly, we chart a course toward a bill-and-keep methodology that will ultimately rid the system of these perverse incentives entirely.

My enthusiasm here is tempered by the fact that end-user charges (under the label of "Access Recovery Charges") are allowed to increase, albeit incrementally, for residential consumers. My first preference was to prevent any increase. Alternatively, we could require individual carriers to demonstrate their need for additional revenues before imposing the ARC. Perhaps some of the largest and most profitable companies should not be able to charge the ARC. However, the Commission does adopt some important measures to protect consumers even as it allows additional charges. In particular, consumers already paying local phone rates of \$30 or more cannot be charged the ARC. The use of this ceiling recognizes that some early adopter states have already tackled intrastate access rates, and their citizens may already be footing a reasonable part of the bill. In the end, I am grateful that, at the very least, additional charges to end-users are not as great as they might have been, are spread over a longer period of time, and should be offset (and hopefully more than matched) by savings and efficiencies realized because of the more rational programs we begin to put in place. And I am hopeful the Commission will do everything it can to assure that these savings are passed on to consumers, although I continue to lament that the fact that we don't have a more competitive telecommunications environment that would better ensure consumer-friendly outcomes.

While "The Inside-the-Beltway" crowd and the armies of industry analysts and assorted other savants will be parsing today's items with eyes focused exclusively on which company or industry sector is up or down, who gains the most or least, and on all the other issues that will cause forests to be chopped down and vats of ink drained, I hope we can keep the focus on the consumer benefits of what we are doing. I would not—could not—support what we do today unless the expected consumer benefits are real enough to justify the effort—and, yes, the risks—of so sweeping a plan. Much will depend upon our implementation and enforcement—and I am sure some mid-course corrections—but I believe there are real and tangible consumer benefits in the framework items before us. More broadband for more people is at the top of the list. As just one example, we anticipate significant new investment with over seven million previously-unserved consumers getting broadband within six years. That means more service, more jobs, more opportunities.

Building critical infrastructure—and broadband is our most critical infrastructure challenge right now—has to be a partnership. The states are important and essential partners as we design and implement new USF and ICC programs. I have been a strong advocate for closer federal-state regulatory partnerships since I arrived here more than ten years ago. I have had the opportunity to serve on the Joint Boards with our state colleagues, to be a part of their deliberations, to appreciate the tremendous expertise and dedication they bring to their regulatory responsibilities, and to have learned so much from them. It is just plain good sense to maximize our working relationships with them. More even than my personal preference, which is deeply-held, this is the mandate of the law. Section 254 of the Act is clear—the states have a critical role in the preservation and advancement of Universal Service. While I understand the need for predictability in an ICC regime, I am pleased that my colleagues have retained a key role for states, including arbitrating interconnection agreements; monitoring intrastate access tariffs during the

transition to bill-and-keep; and helping to implement our Universal Service Fund as well as, in many cases, their own state universal service funds. State regulators are by definition closer to the needs of their consumers than federal regulators ever can be, and they retain their role as the likely first venue for consumer complaints. Additionally, I have urged the entire team here, and all stakeholders, to think creatively about how to *expand* the state role as we implement the new systems. I would hope that carriers would see the benefits of this federal-state cooperation, too. But it is unfortunate, and highly counter-productive to consumers, when some companies exercise their huge lobbying machines to encourage state legislatures to effectively cut state public utility commissions out of telecommunications oversight. This makes everyone's job—except the industry giants'—more difficult. And it harms the nation.

On the legal front, some of the calls made in this item are unnecessarily and unfortunately more circuitous than I believe they need to be. We ought to be long past declaring that IP-to-IP interconnection obligations are required under the Act. We had the chance to do this and to declare that VoIP is a telecommunications service back in 2002 and 2005, and our failures to do so have had tangibly perverse consequences. Avoiding action not only harms competition and delays the more efficient build-out of our information infrastructure—it ensures that America will continue to be down the global broadband rankings in a world where that just doesn't cut it for us. We need to *lead* the world not so we can pin a medal on our chest. We need to lead the world to regain our prosperity, our competitiveness and our capacity to provide jobs and opportunity to every one of our citizens.

Broadband adoption is as great, or greater, a challenge than deployment. I will continue to push for doing more on adoption, but we are limited here by the reality that today's emphasis is on reforming infrastructure deployment in high cost areas. That said, I have worked to include adoption in this proceeding. I am pleased that carriers that receive funding will be expected to connect community anchor institutions that they pass. These entities are often the places where unconnected consumers get their first exposure to broadband and learn how to use it. I am similarly pleased that all Universal Service programs now include a real and enforceable requirement for affordability. It is only logical, and indeed consistent with the mandate of section 254, that carriers whose networks are funded by federal Universal Service support should be required to offer service at affordable rates. That said, much of the important adoption items are still ahead of us. We have an imminent opportunity to update our Lifeline and Link-Up programs, and I expect we will be able to accomplish that before the sun sets on the year 2011.

So there is still much work to be done. The success of today's framework depends heavily on the Commission getting related and integral policy calls right. We must revisit our long-overdue special access proceeding, something critical to small businesses and anchor institutions. This is a situation with huge spill-over effects on the excessive rates consumers are forced to pay. It is a problem that needs to be resolved by Report and Order in the next few months because it has simply waited years too long.

Similarly, we must act on contributions methodology. The *distribution* of funds is only part of the broadband challenge. Of equal importance is the *contribution* of funds going into USF. I would have preferred to see such an item in front of us today. There is inherent inequity in a system that funds the deployment of broadband off of assessments on interstate telephony. Once we ensure that double, triple and quadruple play services that benefit from Universal Service bear their fair share, we will not be subject to the unnecessary financial constraints that our current approach imposes. We also need spectrum management decisions that avoid putting still more spectrum in too few hands. Among other good results, that would drive better mobility auctions.

Successful implementation of the steps we present today will demand a degree of stakeholder cooperation that we have not seen in many years. Consumers, states, businesses, the FCC, Congress and the Administration each has a vital role to play. But, as you have heard me say before, stakeholder

partnering is how we managed to build America's infrastructure over the past two-and-a-quarter centuries, from those early post roads, bridges and canals right up through our super-highways and rural electricity. Now is the time to practice that American Way one more time. I believe the process has started off commendably. Everyone has had an opportunity for input. When we approved the NPRM in February, I remarked that everyone would be asked to give up a little so that the country could gain a lot. That spirit of shared sacrifice has made today's action possible. The process has generally—if not perfectly—worked. Stakeholders stepped up to the plate. Their analyses were important, many of their suggestions creative and helpful. Discussions were held between not only likely players, but some unlikely ones, too, and I applaud that process. I have no illusions about what perils may await us, but I do want to suggest how much better off we will all be if our efforts going forward focus on working together to implement these new frameworks, and working constructively to make changes where they may be called for, rather than spending precious time that the country doesn't have on litigation or legislative end-runs that seek to advantage single private interests at the expense of the greater public good. If the generally cooperative spirit of the past several months serves as our guide going forward, we can avoid those pitfalls.

Lots of people made heroic efforts to get us today's historic achievement. I've already mentioned the leadership of Chairman Genachowski. Our internal team, put together by the Chairman, worked mightily and expertly on a whole host of unbelievably complex issues. Zac Katz and the dedicated experts in the Wireline and Wireless Bureaus, Sharon Gillett, Carol Matthey, Rebekah Goodheart, Ruth Milkman, Rick Kaplan and Jim Schlichting, spent many hours answering our questions and discussing our requests, and they were backed up by dozens of our typically brilliant and dedicated FCC Team. My Commissioner colleagues spent weeks and months immersed in the tall weeds, taking hundreds of meetings, talking with one another and developing constructive proposals, and the Eighth Floor advisers, including Angie Kronenberg on Commissioner Clyburn's staff and Christine Kurth on Commissioner McDowell's, worked long days, nights and week-ends to make this happen. In my own office, Margaret McCarthy and Mark Stone provided not only great analysis but creative suggestions for getting us to better outcomes. And, I should note, *ALL* my staff felt the weight of this and all performed at the stardom level. It has been a highly professional effort by a world-class agency of which I am proud to be a member.

**STATEMENT OF
COMMISSIONER ROBERT M. McDOWELL
APPROVING IN PART, CONCURRING IN PART**

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; Mobility Fund, WT Docket No. 10-208

The feat of modernizing the high cost portion of the Universal Service subsidy program to support next-generation communications technologies, while keeping a lid on spending, is monumental. Thus, our action today is a vital first step in reforming USF while ensuring that rural consumers benefit from needed advanced services.

As I have said several times before, the communications needs of rural America is personal to me. My family deep roots in rural America. My father spent part of his boyhood during the Great Depression on a ranch on the Tex-Mex border without electricity, running water or phone service. With that background in mind, I am committed to carrying out Congress's intent of ensuring the most remote parts of our country are connected.

The challenge of solving the seemingly intractable Universal Service and intercarrier compensation puzzle, however, has cast a long shadow over the FCC for more than a decade. In my nearly five and a half years here, I have traveled across America to learn more about the practical realities of the program. I have held productive policy roundtable discussions with multiple stakeholders in the least populated state, Wyoming, as well as its neighbor South Dakota. I have traversed Tribal lands and some of the least densely populated areas of our country, including Alaska. I've also learned from consumers in urban and suburban areas who pay rates above costs to subsidize rural consumers. And I know that my colleagues have diligently conducted similar field investigations.

In trying to encapsulate what the FCC is accomplishing today, I've turned to one of North America's best telecommunications policy minds, none other than the Great One, Wayne Gretzky. Without any of us realizing it, by implication he predicted what we would do today when he said, "A good hockey player plays where the puck is. A great hockey player plays where the puck is going to be." Today, the FCC is repurposing the high cost program to support unserved consumers' use of communications technologies from where they *are* to where they are *going to be* – in both a technological and geographical sense.

October 27, 2011, is a date that marks a dramatic departure from nearly a century-old policy of opaquely subsidizing analog, circuit-switched voice communications services, to using the efficiencies of market-based incentives to support broadband connectivity in those areas where economic realities have stalled market penetration. Under both Republican and Democratic administrations, the High Cost Fund has become bloated and inefficient. Today, a Republican and three Democrats are taking a giant leap together to fix that. I commend the Chairman for his leadership and fortitude throughout this process. I also thank Commissioners Capps and Clyburn for their thoughtfulness, graciousness and collegiality during this proceeding.

Since I arrived at the Commission in 2006, I have been calling for the FCC to achieve five primary goals when focusing on USF reform, the most important of which is to contain the growth of the

Fund. While our efforts are not perfect, today we are largely achieving this goal in a town otherwise known for its *inability* to control spending.

While I'm on that subject, some have suggested that we scrap the USF program altogether. Others can have that debate. In the meantime, we are mindful that Congress created this program and its ultimate survival is a matter only for Congress to determine. We are duty bound to operate within the statutory constructs handed to us.

In the spirit of being fiscally responsible, however, we are mandating that the high cost program of the Universal Service Fund live under a *definitive budget* for the first time in history. Functionally, the budget serves as an annual cap through 2017. Until then, the Fund may not rise higher than \$4.5 billion per year, on average after true-ups, without Commission approval. After that time, it is my hope that competitive forces will flourish and the development of new technologies will create additional efficiencies throughout the system. If so, much of the vacuum will have been filled and the need for future subsidies will have declined substantially. Perhaps the day will come when Congress can determine that subsidies are no longer needed.

Of course, there is nothing we can do to prevent future Commissions from voting to comprehensively alter what we have done and spend more money later. That would be true as a matter of law whether we called our fiscally prudent action today a "definitive budget," "cap," "beret" or "sombbrero." If the FCC of tomorrow wants to undo what we have done today, however, good luck with that. You're going to need it. If history is our guide, the alacrity with which the Commission can accomplish comprehensive USF reform is nothing short of glacial. Nonetheless, I hope future Commissions will keep their caps *on* out of respect for fiscal responsibility and the consumers who pay for these subsidies.

Also, today we are only addressing the high cost program of the distribution side of the Universal Service Fund. We are not addressing the entire Universal Service Fund, which currently distributes over \$8 billion per year. To put that figure in context, USF is larger than the annual revenues of Major League Baseball. In separate proceedings, we will also reform the other USF spending programs. I cannot stress enough that all of the fiscal efficiencies that we will realize in the wake of today's reforms will be lost if similar fiscal discipline is not applied to all Universal Service programs as well.

Moreover, we are only addressing part of the distribution, or spending, side of the Universal Service program. In fact, despite all of the exhaustive efforts to get to this point, our work on comprehensive Universal Service reform is not even half finished. Equally important is the need to reform the contribution methodology, or how we are going to pay for all of this. It is no secret that for years I have been pushing for contribution reform to be carried out at the same time as distribution reform. Obviously, that is not happening today; therefore we must act quickly. The contribution factor, a type of tax paid by consumers, has risen each year from approximately 5.5 percent in 1998 to an estimated 15.3 percent in the fourth quarter of this year. This trend is unacceptable. We must abate this automatic tax increase without further delay. Accordingly, I strongly urge that we work together to complete a proceeding to reform the contribution methodology in the first half of the year.

In the meantime, today we are undertaking significant reforms. Although time does not allow me to discuss each one, I'd like to mention a few of my favorites.

- It may surprise some observers the vigor and breadth to which we give life to competitive bidding, a market-based approach to distributing subsidies, otherwise known as reverse auctions. This is more than I could have hoped for in 2008, when a Republican-controlled FCC teetered on

the cusp of comprehensive reform before our efforts were scuttled. Supporting these provisions was likely not easy for some of my colleagues and I thank them for their spirit of compromise.

- We are eliminating the inefficient identical support rule. The wasteful era of subsidizing multiple competitors in the same place has come to an end.
- We are finally giving consumers the benefit of more transparency by phasing out hidden subsidies, albeit 15 years after Congress told us to do so in the Telecommunications Act of 1996. Better late than never, I suppose. As the veil is lifted, however, industry and government alike will have to do their best to keep consumers properly educated on what they will see on their phones bills and what it all means. For the vast majority of consumers, rates should decline or stay the same, so I will look with skepticism on any news stories that claim the FCC is raising rates. The simple truth is: We are not.
- We are creating a frugally-minded, but reasonable, waiver process for highly unlikely cases where carriers are definitively experiencing extreme hardship due to our reforms.
- In the further notice, we propose means testing to identify qualified recipients in remote areas. Such a screening process could save money and maximize the effectiveness of the Fund.

As a legal matter, some question whether the Commission has the authority to use Universal Service funds to support broadband directly. As I have said many times before, I believe the Commission *does* have broad authority to repurpose support to advanced services as handed to us by the plain language of section 254.

In section 254(b), Congress specified that “[t]he Joint Board and the Commission *shall* base policies for the preservation and advancement of universal service on [certain] principles.”¹ Two of those principles are particularly instructive: First, under section 254(b)(2), Congress sets forth the principle that “[a]ccess to advanced telecommunications and information services should be provided in all regions of the Nation.”² Second, with section 254(b)(3), Congress established the principle that “[c]onsumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas, should have access to telecommunications and *information services* . . .”³

Also, section 254(b)(7) instructs the Commission and Joint Board to adopt “other principles” that we “determine are necessary and appropriate for the protection of the public interest, convenience, and necessity and are consistent with” the Communications Act. In that regard, in 2010 the Federal-State Board on Universal Service recommended to the Commission that we use our authority under section 254(b)(7) to adopt a principle to “specifically find that universal service support should be directed where possible to networks that provide advanced services.”⁴

As part of this order today, we agreed with the Joint Board recommendation and adopted “support for advanced services” as an additional principle. Moreover, even if any of the statutory language in

¹ 47 U.S.C. § 254(b) (emphasis added).

² 47 U.S.C. § 254(b)(2).

³ 47 U.S.C. § 254(b)(3) (emphasis added).

⁴ Federal-State Joint Board on Universal Service, CC Docket No. 96-45, WC Docket No. 03-109, *Recommended Decision*, 25 FCC Rcd 15598, 15625 ¶ 75 (2010).

section 254 appears to be ambiguous,⁵ the Commission's reasonable interpretation would receive deference from the courts under *Chevron*.⁶

It should come as no surprise, however, that I cannot support the view that section 706 provides the Commission with authority to support broadband through Universal Service funds. As I have said many times before, section 706 is narrow in scope and does not provide the Commission with specific or general authority to do much of anything. We respectfully agree to disagree on that analysis in this order.

Finally, given the breadth and magnitude of today's actions, the effects will not be fully apparent in the near term. Certainly, there will be varied opinions regarding what we have accomplished. That said, Universal Service reform is an iterative process. We will constantly monitor its implementations and quickly make adjustments, if needed.

In sum, I would like to thank all of the people who have sacrificed countless family dinners, weekends, vacations, birthday and anniversary celebrations and such over the past many months to make this day possible. While Sharon Gillett, Carol Matthey, Rebekah Goodheart, Trent Harkrader, Amy Bender, Steve Rosenberg, Brad Gillen, Victoria Goldberg and Marcus Maher of the Wireline Bureau and Rick Kaplan, Margie Weiner and Jim Schlichting of the Wireless Telecommunications Bureau deserve high praise, we all know that legions more dedicated public servants have shed their blood, sweat, toil and tears to make this endeavor possible today. I also commend the Chairman's Chief Counsel, Zac Katz, for his tireless efforts, patience and leadership during this process. Furthermore, I thank Commissioner Copps's legal advisor Margaret McCarthy and Commissioner Clyburn's legal advisor Angie Kronenberg for your collegial efforts during this process. And from my office, Christine Kurth deserves a special mention. When I hired her over two years ago from the Senate I said, "Your main mission is to fix Universal Service." She accepted my offer anyway, and has completed half of that mission today. Many, many thanks to all of you for your incredibly hard work.

⁵ Some contend that the definition of universal service under section 254(c)(1) muddies the water because it does not include "information service." Instead, that provision states that "[u]niversal service is an evolving level of *telecommunications services* . . . taking into account advances in telecommunications and information technologies and services." But, it is also relevant that the term "telecommunications service" is qualified by the adjective "evolving." Even if section 254 were viewed as ambiguous, pursuant to the well established principle of *Chevron* deference, the courts would likely uphold the FCC's interpretation as a reasonable and permissible one. *See Chevron U.S.A. Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837 (1984).

⁶ *Chevron*, 467 U.S. 837; *see also Texas Office of Public Utility Counsel v. FCC*, 183 F.3d 393 (5th Cir. 1999) (relying on *Chevron* deference in affirming FCC authority to implement universal service provisions set forth in the Telecommunications Act of 1996).

**STATEMENT OF
COMMISSIONER MIGNON L. CLYBURN**

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; *Mobility Fund*, WT Docket No. 10-208

We are taking a momentous step today—moving ever so close to fulfilling the goal Congress set forth for universal service in the 1996 Telecommunications Act—to ensure that *all* Americans have access to affordable voice and advanced communications services. We would not be here, but for the incredibly hard work of the FCC staff, under the direction and leadership of Chairman Genachowski and his office, as well as significant input from Congress, our State partners, industry, and consumer representatives.

I believe that we have drawn from many competing sources, to form a balanced framework that will promote significant broadband deployment, as quickly as possible, to those consumers that are currently unserved. The painful truth of the matter is that there are 18 million Americans who have not fully benefitted from our current universal service policies, and that is unacceptable. They remain the “have nots” of the broadband world who I am determined will benefit the most from our action today. As I have considered these reforms, it is those unserved consumers who are first and foremost in my mind. This plan provides for speedy broadband deployment to many of these consumers, with an injection of capital in 2012, for both fixed and mobile technologies.

In addition to these immediate needs, I carefully considered how much those consumers are being asked to shoulder, when it comes to the costs of Intercarrier Compensation reform, as well as the impact on those consumers who already have service. It also shouldn't surprise anyone that it was similarly important to me, that we give service providers and their investors time to adjust to our proposed reforms, because from day one, I made a firm commitment to no flash cuts. A reasonable transition period will help ensure that providers can navigate these reforms successfully. But for those providers who require additional time to adjust, we have in place a waiver process that is firm, predictable, yet fair. Another benefit of this waiver process is that it provides this Commission with a safety net—so that we can adjust support as needed, in order to avoid inadvertently harming the success we have already achieved through our legacy system.

Overall, I believe the Chairman's proposal, carefully balances these interests and will result in a meaningful difference for many Americans, and I want to commend him and my colleagues, for the significant progress that is reflected in this Order. Accordingly, I offer my full support for the actions we take today.

As you all know, I have a deep connection to rural America. Without comparable modern communications services enjoyed by their urban counterparts, those citizens will never adequately compete in our global economy. They need and deserve reliable fixed as well as mobile broadband in order to thrive. Without this critical broadband infrastructure, rural Americans would be forever left behind. We are aware that the financial needs to provide advanced services in these areas are significant, and yes, I appreciate the fact that setting a budget for the high-cost program will provide overall certainty and predictability. However, it is equally important that we have the flexibility to adjust, as needed, within, and between these high-cost programs. I want to thank my good friends and colleagues, for

working with me, to ensure that we have not unduly limited our ability to revisit our current estimates of the funding that's needed, for the high-cost programs in the future.

An underlying theme of today's reforms is shared sacrifice for the common good. After all, we are talking about the people's money. We are accountable to them, and I am confident that the adjustments being made to the legacy USF support, and the funding mechanisms being adopted for the new Connect America Fund, are sensible. These reforms will put both the USF and ICC regimes on a sounder footing, so we may better accomplish our goal and Congress' mandate, to serve more Americans with advanced communications networks—no matter where they live, work, or travel in this great nation.

For a number of years, the Federal-State Joint Board on Universal Service and its state and federal members, have called for this Commission, to provide for the direct funding of broadband. Early on, they recognized the importance of both broadband and mobility service. I am proud that this Commission has heeded this call and is formally adopting the principle advanced by the Joint Board last year in its Recommended Decision that "universal service support should be directed where possible to networks that provide advanced services, as well as voice services." Moreover, upon the advice and counsel of our State Members and colleagues, we are adopting a Mobility Fund to infuse \$300 million in capital to extend 3G and 4G networks to more Americans in 2012. In addition, we are adopting a Mobility Fund II, to ensure that consumers have access to mobile broadband services by providing ongoing support to providers in hard-to-serve areas, and we are eliminating our identical support rule.

We owe a debt of gratitude to our State Members. They have been a significant resource for this Commission in our reform process. We sat through numerous workshops and meetings together, hashing out ideas and concepts. They spent countless hours drafting a proposal for our consideration, and they have been more than generous with their time and advice. I want to sincerely thank them for their good counsel in this proceeding and for their service to our nation.

The FCC has heavily relied on the suggestions in their plan. We are requiring USF recipients to meet interim broadband build out milestones, to annually report on their build out and service requirements, and to file those reports jointly at the FCC and the state utility Commissions. We also are implementing a cap on total per-line support, and other fiscally responsible measures, to eliminate waste and inefficiency in the system.

In addition, we are clarifying in our Order that we expect all carriers, to negotiate in good faith in response to requests for IP-to-IP interconnection for the exchange of voice traffic. Not only did we hear from the states about how important it is to ensure that IP interconnection occurs, we also received significant comment from competitive voice providers that the lack of IP interconnection is impeding the development of IP networks, including VoIP services. As such, the Order confirms that the duty to negotiate in good faith, does not depend upon the network technology underlying the interconnection, whether it is TDM, IP, or otherwise, and that we expect good faith negotiations to result in interconnection arrangements between IP networks for the purpose of exchanging voice traffic.

Another topic that I spent a great deal of time on with my state colleagues, was the Intercarrier Compensation regime. Today's decision sets forth a national approach for ICC reform, for both intrastate and interstate access rates. It's probably not surprising that I naturally gravitated to the proposal in our NPRM, that would have had the states reform their own intrastate access rates, and left the interstate reform to this Commission. But after much discussion and consideration, I will accept the Chairman's proposal that a federal approach is the right outcome in this instance. A multi-state process for reform would be long and arduous, costly and demanding on the states, with unpredictable and perhaps inconsistent results. In the meantime, the pressure would continue to build for us to intervene and

stabilize the ICC regime to provide the companies the predictability and certainty they need to continue to invest and innovate for the benefit of consumers.

However, I think it is only appropriate that our actions today carefully preserve and recognize the reforms that some states already have undertaken. Most importantly, we have provided for replacement funding as intrastate access rates decline as a result of our reform which relieves the financial burden that would have been on states in their own attempts at reform. To that end, we also have carefully balanced ICC revenue replacement for providers, with the important goal of not burdening consumers with significant increases in their bills or overburdening the USF which is ultimately paid for by consumers. As indicated by our staff's analysis, we believe that the overall benefits that will flow to consumers as a result of this reform will far outweigh the minimal price increases they will experience on their phone bills due to ICC reform.

I also want to be quite clear that states will continue to have an important role with respect to the arbitration of interconnection agreements and in the operation of USF. With respect to USF, states will continue to designate Eligible Telecommunications Carriers for USF purposes and will continue to protect consumers through their carrier of last resort regulations. As technology evolves, so too must the role of the regulators.

We are experiencing a significant technological evolution as networks are transitioning to Internet Protocol, and consumers are using multiple modes of communications (sometimes simultaneously). Indeed, the underlying cause of the reforms we implement today is due to the enormous technological shift that has occurred in the last ten years. One constant that I have seen, however, is that consumers expect that their state regulators will serve and protect them. Moreover, those of us at the FCC need the states' expertise and knowledge on the ground, to properly execute and operate our new universal service funding mechanisms. For instance, we need the state's assistance in identifying those areas that currently are unserved by broadband. We want to target our limited resources to those consumers who do not have any broadband provider offering them service. Likewise, we will need the states' help assessing that those providers who receive funding meet their public interest obligations to build and serve. As such, I am confident that these reforms are an opportunity for us to continue working hand-in-hand with our state colleagues, to ensure that broadband is available throughout the country, and I look forward to our continued partnership with the states in this important endeavor.

The communications marketplace has changed dramatically, and one significant reason is the explosion of mobile services in the U.S. More and more Americans are relying upon their smartphones to access the Internet, and almost 30% of Americans have cut their telephone cord when it comes to home service. I have worked closely with my colleagues, to ensure that we are providing significant support for mobile services, particularly in rural America. Certainly, rural consumers and those who travel in non-urban areas expect that they will have access to mobile services that are comparable to anywhere else in this nation. We want and expect our devices to work wherever we are. As such, I believe that a budget which reflects the growing importance of mobility to Americans is significant, and that we should offer ongoing support for those areas that would not be served otherwise. I am grateful that the fund for ongoing mobility fund support—Mobility Fund II—has been increased 25% more than what was originally proposed in the circulated draft, reflecting the fact that mobility for rural areas is a priority.

I also want to thank the Chair for agreeing with me that while the identical support should be phased out, we need to ensure that Mobility Fund II is operating and funded before the phase down is completed for wireless CETCs. The pause in the phase down I proposed, is now fully reflected so that wireless carriers can have some confidence that they won't lose more than 40% of funding before they know what support they may qualify for in Mobility Fund II.

While deployment of networks to reach individual consumers has been the paramount purpose of the high-cost program, it also has provided for service to community anchor institutions, including schools, libraries, health care facilities, and public safety agencies. In order to ensure that these vital institutions can obtain the modern services that are essential for service to their communities, we have provided them an opportunity to engage with USF recipients in the network planning stage. As such, their communications needs are fully considered by the providers. Similarly, recipients will detail in their annual reports to the FCC and the state Commissions those community anchor institutions that have received service as a result of the Fund. Accordingly, we will be able to fully account for all of the benefits that local communities' receive as a result of USF support.

Although the reforms we adopt today are extremely important for ensuring that basic and advanced communications services are physically available to all Americans, those services cannot be *truly available*, if consumers cannot afford to purchase them, the devices they need to access them are not available, or if they cannot attain the skills they need to know how to use these services. I appreciate those who have called for us to address these consumer needs today, and I agree with you that we need to do more in this area. Our broadband adoption task force is working diligently to find solutions to these issues, and I fully expect that we soon will be addressing the proposal in our Lifeline proceeding to adopt pilot projects for broadband adoption to benefit low-income Americans who qualify for the Lifeline program. I look forward to our continued work with our task force, including finishing the Lifeline proceeding before the end of the year, so that we can make more headway on this significant issue for low-income consumers.

To our Bureaus and their staffs, I thank you for your tremendous and Herculean efforts throughout this proceeding. I know you have made many personal sacrifices to help us reach this moment, and I wish to commend you for the results. You planned and conduct workshops, reviewed our record, listened to the numerous interested parties in this proceeding, balanced all concerns, crafted the Order and accompanying Further Notice, and put up with our office. Please know how much we appreciate all of you.

I wish I could say that we were at the finish line, but this, indeed, is a marathon. And like those who will compete in this Sunday's race, you have been preparing for months for this milestone that we've reached today, but we are at mile 20—we have a little further to go. I for one look forward to our continued engagement on the implementation of these reforms.

I also want to congratulate the Chairman and my fellow Commissioners on today's vote. The task before us has not been an easy one, but it is certainly one for which I am proud that this Commission has *finally* achieved. Commissioner Copps and Commissioner McDowell, I know you both have witnessed past attempts at USF and ICC reform, and you must be especially proud today. Thank you for your diligence and hard work. And Mr. Chairman, I also want to express my gratitude for your leadership, engagement, willingness to listen to and address my concerns, and your honest attempts to reach consensus.

I also want to express my sincere gratitude for my Wireline Legal Advisor, Angie Kronenberg, who led our office in this endeavor, as well as Louis Peraertz, my Wireless Legal Advisor, who provided his expertise on the mobility issues. Both ensured that the principles I care most about—that we are serving consumers—are truly reflected throughout this item. I also am appreciative for the contributions that Margaret McCarthy, from Commissioner Copps' office made to our deliberations, and to the ringleader on this significant reform today, Zac Katz. Thank you.