

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)
)
Modernizing the FCC Form 477 Data Program) WC Docket No. 11-10

REPORT AND ORDER

Adopted: June 27, 2013

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By the Commission: Acting Chairwoman Clyburn and Commissioners Rosenworcel and Pai issuing separate statements.

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I. INTRODUCTION

1. The Commission is committed to robust, data-driven decision making. Data about broadband and voice deployment and subscription are essential to the Commission’s ability to fulfill its statutory obligations and play a vital public interest role for other state, local, and federal agencies, researchers, and consumers. To carry out our commitment, we need adequate and reliable data.

2. For the last three years, data on broadband deployment have been collected by the National Telecommunications and Information Administration (NTIA) to populate the National Broadband Map. But NTIA’s collection program is nearing its completion. In today’s Order, we assume the responsibility for collection of broadband deployment data, with some modifications to streamline and

reduce the burdens on providers while making other modest improvements. We applaud NTIA for its collection in coordination with the states through the State Broadband Initiative (SBI). We are proud to carry the torch forward.

3. In addition, this Order makes a number of targeted changes to reduce reporting burdens and enhance the usefulness of data collected through the Form 477. Specifically, we modify our Form 477 program in the following ways:

- To ensure continuity with the National Broadband Map, we collect network deployment data for fixed and mobile broadband as well as mobile voice network deployment data. Fixed broadband data will be collected by census block, while mobile broadband and mobile voice providers will provide data showing their network coverage areas.
- To streamline and reduce burdens, we:
 - will not require providers to submit broadband deployment data in predetermined speed tiers, and instead will require providers of broadband services simply to provide advertised speeds—the maximum advertised speed in each census block for fixed broadband, and the minimum advertised speed in each coverage area for mobile broadband. Streamlining the collection in this manner will give the Commission greater flexibility to group and analyze broadband speed data in useful ways.
 - allow providers to file all data in a single, uniform format, rather than potentially different formats across the states.
- To analyze competition for residential versus business customers, fixed broadband providers must distinguish, where appropriate, between deployment of residential and nonresidential services.

4. With regard to our collection of subscription and other data, we also take measures to reduce burdens while improving the quality of our data:

- To reduce burdens we:
 - eliminate the use of speed tiers for broadband subscription data, as we do with broadband deployment data, and require filers to provide the number of broadband connections by the advertised speeds associated with each product subscribed to in the relevant geographic area, census tracts for fixed and states for mobile. Fixed providers will report connections by the maximum advertised upload and download speeds, while mobile providers will report connections by minimum advertised upload and download speeds.
 - eliminate various questions on the current Form 477 in order to streamline the Form, avoid duplication with the new deployment collection, and reduce the burden on filers.
- To improve the quality of the subscription data we collect, we require providers of fixed voice and interconnected VoIP services to file subscription data by census tract, as we currently do for fixed broadband subscription data, rather than the current process of requiring such providers to submit the list of ZIP codes in which they provide service to end-user customers.
- To enhance our ability to meet public safety needs and obligations, we collect emergency contact information from providers.
- Finally, we require filers to report certain company identification information, which will facilitate transaction reviews, as well as ongoing vigilance against waste, fraud, and abuse of universal service funding.

5. We are committed to improving the data that the Commission collects even as we continue to explore ways to make the Form 477 filing less burdensome. To that end, we direct the

Wireline Competition Bureau, in consultation with the Wireless Telecommunications Bureau, to explore technical improvements to the Form 477 filing mechanism that may make the process easier for filers, and to examine ways to collect more granular data without increasing burdens.

II. BACKGROUND

A. Development and Evolution of the Form 477 Data Program

6. The Commission's Form 477 was established in 2000 to provide the Commission with uniform and reliable data not comprehensively available elsewhere.¹ The information submitted through the Form 477 program improves the Commission's ability to comply with statutory requirements and develop, evaluate, and revise policy, and provides important benchmarks for Congress, the Commission, other policy makers, academic researchers, and consumers.² The Commission has revised the nature of the information collected via the form several times during the last decade to ensure that we collect data relevant to a changing marketplace. Nearly four years ago, the National Broadband Plan recommended that the Commission revise its Form 477 data collection to better monitor broadband availability, adoption, and competition.³ In turn, the Commission launched its Data Innovation Initiative—a whole-agency effort to modernize and streamline how we collect, use, and disseminate data.⁴ This Order acts on the commitment to ensure that the Commission has the information it needs for data-driven decision making while minimizing the burden on industry.

7. *May 2000 Form 477.* The Commission established Form 477 to collect data regarding broadband services, local telephone service competition, and mobile telephony services on a single form and in a standardized manner.⁵ The original Form 477 collected subscribership data for local telephone service, including data from incumbent local exchange carriers (LECs) and competitive LECs, on the number of voice-grade equivalent lines and fixed wireless channels in service for the provision of local

¹ Form 477 also currently collects limited information from broadband providers about the availability of broadband service. *FCC Form 477 Instructions* at 9–10, <http://transition.fcc.gov/Forms/Form477/477inst.pdf>.

² *Local Competition and Broadband Reporting*, CC Docket No. 99-301, Report and Order, 15 FCC Rcd 7717, 7718, 7724–29, paras. 1, 11–18 (2000) (*2000 Data Gathering Order*).

³ Federal Communications Commission, *Connecting America: The National Broadband Plan*, GN Docket No. 09-51, at 9, 29 (2010) (*National Broadband Plan* or *Plan*). The American Recovery and Reinvestment Act of 2009 directed the Commission to develop a national broadband plan to ensure that all people of the United States have access to broadband. See American Recovery and Reinvestment Act of 2009, § 6001(k), Pub. L. No. 111-5, 123 Stat. 115, 516 (2009).

⁴ See FCC, Data Innovation Initiative, <http://www.fcc.gov/data/data-innovation-initiative> (last visited June 20, 2013). Since the launch of the Data Innovation Initiative, the Commission has delivered several reforms to its data-related activities. For example, we recently reformed our international data collections to advance the Commission's needs while avoiding unnecessary or excessive burdens on international service providers. *Reporting Requirements for U.S. Providers of International Telecommunications Services, Amendment of Part 43 of the Commission's Rules*, IB Docket No. 04-112, Second Report and Order, 28 FCC Rcd 575 (2013) (amending the Commission's two international data collections and reducing the overall burdens industry-wide by nearly 30 percent by eliminating reporting requirements for over a thousand small carriers and reducing the level of detail submitted by international service providers by over 75 percent). The Commission has also released an interactive map to illustrate areas that will see new broadband deployment through Connect America Fund "Phase I." *FCC Releases New, Interactive Map Illustrating States Set to Receive Connect America Fund Support to Bring 400,000 Americans High-Speed Broadband*, News Release (July 26, 2012); see also FCC, Connect America Fund (CAF) Phase I Map, <http://www.fcc.gov/maps/connect-america-fund-caf-phase-i>.

⁵ *2000 Data Gathering Order*, 15 FCC Rcd at 7717, 7718, 7749–50, 7753–54, 7756–57, 7772–90, paras. 1, 66, 75, 84, App. B.

exchange or exchange access service to end-user customers and for resale.⁶ The form required broadband⁷ and local telephone service providers to provide a list, by state, of the five-digit ZIP codes in which they provided service to end-user customers. The form required mobile telephony providers to report total subscribers served over their facilities, by state, and the percentage of those subscribers billed directly by the reporting provider.

8. The initial Form 477 collected data from facilities-based broadband providers on the numbers of connections to the Internet in service to end users in each state.⁸ The Commission tracked connections with information transfer rates exceeding 200 kilobits per second (kbps) in at least one direction.⁹ The Commission required providers to identify the technology used to provide the connections,¹⁰ the percentage of connections used by residential customers and small businesses as a group,¹¹ whether the connections used the provider's own "last mile" facilities,¹² and each ZIP code in which the provider had at least one connection in service by means of any broadband technology.¹³

9. *2004 Revisions.* To capture a more comprehensive picture of broadband deployment in rural areas, in 2004 the Commission required submissions from all facilities-based providers of broadband connections.¹⁴ The Commission further required filers to report the percentage of their connections that fell into five speed tiers.¹⁵ Incumbent LECs were required to report the percentage of residential end-user premises in their service areas where DSL connections were available, and cable system operators were required to report comparable information for their cable modem service.¹⁶ Also,

⁶ In addition, LECs reported the percentage of lines provided over the carriers' own facilities, the percentage provided over UNE loops obtained from other LECs, and the percentage provided by competitive LECs using a collocation arrangement in an incumbent LEC switching center. *Id.* at 7752, para. 71.

⁷ The Form required facilities-based broadband providers to report their lines based upon the category of distribution technology: asymmetric xDSL services; other traditional wireline services including symmetric xDSL services, coaxial cable carrier systems; optical carrier (SONET) to the customer premises; satellite; terrestrial fixed wireless service including services provided over unlicensed spectrum; terrestrial mobile wireless service; and all other technologies. *Id.* at 7751, para. 67.

⁸ *Id.* at 7749–50, para. 66.

⁹ *Id.*

¹⁰ *Id.* at 7750, para. 67.

¹¹ *Id.* at 7751, para. 69.

¹² *Id.* at 7752, para. 71.

¹³ *Id.* at 7721, para. 6.

¹⁴ *Local Telephone Competition and Broadband Reporting*, WC Docket No. 04-141, Report and Order, 19 FCC Rcd 22340, 22346, para. 9 (2004) (*2004 Broadband Data Gathering Order*) ("Based on our experience with the Form 477 over the past nearly five years, we now conclude that the current thresholds render impossible a thorough understanding of the dynamics of broadband deployment in states with rural and/or underserved areas."). The original Form 477 Order did not require small providers to file reports. *2000 Data Gathering Order*, 15 FCC Rcd at 7737–43, paras. 34–47.

¹⁵ *2004 Broadband Data Gathering Order*, 19 FCC Rcd at 22347–48, para. 14. These tiers were: (1) greater than 200 kbps and less than 2.5 megabits per second (Mbps); (2) greater than or equal to 2.5 Mbps and less than 10 Mbps; (3) greater than or equal to 10 Mbps and less than 25 Mbps; (4) greater than or equal to 25 Mbps and less than 100 Mbps; and (5) greater than or equal to 100 Mbps.

¹⁶ *Id.* at 22348, para. 16.

filers were required to identify which particular fixed-location broadband technologies were being used to provide connections in individual ZIP codes.¹⁷

10. *2008 Revisions.* In 2008, the Commission again revised the Form 477 data program to collect more granular subscription data and improve the quality of data on mobile wireless broadband services.¹⁸ The Commission determined that all wireline, terrestrial-fixed wireless, and satellite broadband service providers must report the numbers of subscribers by census tract, broken down by technology and more disaggregated speed tiers,¹⁹ and the percentage of subscribers that are residential.²⁰ The Commission extended filing requirements to providers of interconnected Voice over Internet Protocol (VoIP) service, requiring them to report the number of subscribers they serve in each state, the percentage of those who are residential, the number of subscribers who purchase the service in conjunction with the purchase of a broadband connection and, of those, the types of connections purchased.²¹ The Commission also required interconnected VoIP service providers to report the percentage of subscribers who can use the service over any broadband connection and to report a list of five-digit ZIP codes within each state in which they have at least one subscriber.²² The Commission determined that terrestrial mobile wireless broadband service providers would continue to submit their broadband subscriber totals on a state-by-state basis, rather than by census tract, and list the census tracts that “best represent” their broadband service footprint for each speed tier they offer.²³

11. *2008 Further Notice.* In the 2008 Further Notice of Proposed Rulemaking, the Commission sought comment on several matters, including whether it should collect information on actual speeds of broadband services; how generally to maintain the confidentiality of broadband data; whether the Commission should conduct and publish periodic consumer surveys on broadband services;²⁴ and whether and how to institute a national broadband availability mapping program. The Commission

¹⁷ *Id.* at 22349–50, para. 18. Acknowledging that mobile broadband service differs in some respects from fixed broadband service, the Commission required filers reporting mobile wireless broadband subscribers to list the ZIP codes that “best represent the filers’ mobile wireless broadband coverage areas.” *Id.*

¹⁸ *Development of Nationwide Broadband Data to Evaluate Reasonable and Timely Deployment of Advanced Services to All Americans, Improvement of Wireless Broadband Subscriber Data, and Development of Data on Interconnected Voice over Internet Protocol Subscriber Data*, WC Docket No. 07-38, Report and Order and Further Notice of Proposed Rulemaking, 23 FCC Rcd 9691 (2008) (*2008 Broadband Data Gathering Order and Further Notice*); *Development of Nationwide Broadband Data to Evaluate Reasonable and Timely Deployment of Advanced Services to All Americans, Improvement of Wireless Broadband Subscriber Data, and Development of Data on Interconnected Voice over Internet Protocol Subscriber Data*, WC Docket No. 07-38, Order on Reconsideration, 23 FCC Rcd 9800 (2008) (*2008 Broadband Data Gathering Reconsideration Order*).

¹⁹ The Commission updated the broadband reporting tiers to consist of an upload speed tier of 200 kbps or less and upload and download speeds of: (1) greater than 200 kbps but less than 768 kbps; (2) equal to or greater than 768 kbps but less than 1.5 Mbps; (3) equal to or greater than 1.5 Mbps but less than 3.0 Mbps; (4) equal to or greater than 3.0 Mbps but less than 6.0 Mbps; (5) equal to or greater than 6.0 Mbps but less than 10.0 Mbps; (6) equal to or greater than 10.0 Mbps but less than 25.0 Mbps; (7) equal to or greater than 25.0 Mbps but less than 100.0 Mbps; and (8) equal to or greater than 100 Mbps—for a total of 72 speed-tier combinations. *2008 Broadband Data Gathering Order and Further Notice*, 23 FCC Rcd at 9700–01, para. 20.

²⁰ Previously, the Commission had required providers to list the ZIP codes in which they had at least one end-user connection in service, but collected subscriber counts only at the state level and in accordance with less granular speed tiers. See, e.g., *2000 Data Gathering Order*, 15 FCC Rcd at 7761, 7772–73, para. 94, App. B, Cover Page & Part I.

²¹ *2008 Broadband Data Gathering Order and Further Notice*, 23 FCC Rcd at 9705–07, paras. 26–31.

²² *Id.* at 9707, paras. 30–31.

²³ See *id.* at 9698–99, para. 16.

²⁴ *Id.* at 9708, para. 33.

tentatively concluded that it “should collect information that providers use to respond to prospective customers to determine on an address-by-address basis whether service is available.”²⁵

12. *National Broadband Plan*. The National Broadband Plan emphasized the necessity of “continuous collection and analysis of detailed data on competitive behavior” and the need for the Commission to conduct “more thorough data collection to monitor and benchmark competitive behavior.”²⁶ The Plan also recommended that the Commission “revise Form 477 to collect data relevant to broadband availability, adoption and competition.”²⁷

13. *2011 Notice of Proposed Rulemaking*. On February 8, 2011, the Commission released a Notice of Proposed Rulemaking (*Notice*) seeking comment on whether and how to reform the Form 477 data program to improve the Commission’s ability to carry out its statutory duties, while also streamlining and minimizing the overall costs of the program, including the burdens imposed on providers.²⁸ The Commission sought comment on the collection of five specific categories of data—deployment, price, subscription, service quality and customer satisfaction, and ownership and contact information—asking whether and how to collect such data and seeking comment on the Commission’s authority to do so.²⁹ The *Notice* also sought comment on the use of third-party data,³⁰ which entities should be required to report,³¹ and the frequency of reporting.³²

B. Uses of Form 477 and SBI Data

14. Data collected through Form 477 and NTIA’s SBI program play an essential role in the Commission’s work: we use these data to meet our statutory obligation to assess annually the state of broadband availability,³³ update our universal service policies and monitor whether our statutory universal

²⁵ *Id.* at 9709, para. 35.

²⁶ *National Broadband Plan* at 9, 29.

²⁷ *Id.* at 43. Recommendation 4.2 states: “[The Commission] should collect broadband availability data at the census *block* level, by provider, technology and offered speed. Availability for mobile service should be defined in terms of coverage specifications to be determined by the FCC and include information on spectrum used by facilities-based providers. In addition, the FCC should collect broadband service providers’ ownership and affiliation data and clarify and refine all reporting standards to ensure data consistency and comparability.” *Id.* (emphasis in original).

²⁸ *Modernizing the FCC Form 477 Data Program; Development of Nationwide Broadband Data to Evaluate Reasonable and Timely Deployment of Advanced Services to All Americans, Improvement of Wireless Broadband Subscriber Data, and Development of Data on Interconnected Voice over Internet Protocol (VoIP) Subscribership; Service Quality, Customer Satisfaction, Infrastructure and Operating Data Gathering; Review of Wireline Competition Bureau Data Practices*, WC Docket Nos. 11-10, 07-38, 08-190, 10-132, Notice of Proposed Rulemaking, 26 FCC Rcd 1508 (2011) (*Notice*). Today’s Order addresses issues that were first raised in WC Docket Nos. 07-38, 08-190, and 10-123 that relate to the Commission’s data programs. Given the changes that the industry has experienced since the *2008 Broadband Data Gathering Order and Further Notice*, the increased focus on broadband issues by the Commission and Congress, and the administrative efficiencies that will result from consolidating these issues in a single docket, the Commission incorporated the comments and *ex parte* presentations of WC Docket Nos. 07-38, 08-190, and 10-123 into new docket WC Docket No. 11-10. *See id.* at 1513, para. 10 n.34.

²⁹ *Id.* at 1526–42, paras. 47–104. This Order addresses the collection of deployment data, subscription data, and company identification and contact information. We do not address the collection of price data or service quality and customer satisfaction data at this time, and those issues remain open for consideration.

³⁰ *Id.* at 1524–25, paras. 41–42.

³¹ *Id.* at 1525–26, paras. 43–45.

³² *Id.* at 1526–27, para. 46.

³³ *See id.* at 1521–23, paras. 32–34. A number of commenters support our conclusion that broadband deployment data are essential to meet our statutory obligation to assess annually the state of broadband availability. *See, e.g.*, (continued....)

service goals are being achieved,³⁴ and meet our public safety obligations.³⁵ We also make the data available to states, researchers, and the public to inform their own activities and decisions regarding voice and broadband networks and services.³⁶

15. Many of these obligations flow directly from statute. Significantly, the Broadband Data Improvement Act (or BDIA, which built on section 706 of the Telecommunications Act of 1996) requires that the Commission conduct an annual inquiry concerning the “availability of advanced telecommunications capability to all Americans.”³⁷ As part of this inquiry, the Commission must

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AT&T Comments at 12 (agreeing that the Commission has a legitimate need to understand the dynamics of broadband availability); Letter from Gene I. Kimmelman, Chief Counsel for Competition Policy and Intergovernmental Relations, *et al.*, U.S. Department of Justice, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 11-10, 07-38, 08-190, 10-132, at 1 (filed June 3, 2011) (DOJ June 3, 2011 *Ex Parte* Letter) (explaining that deployment data enables comparisons of rural versus urban deployment and state-by-state deployment); CWA Comments at 5 (commenting that deployment data enables the Commission to identify gaps in, and barriers to, broadband adoption). Unless otherwise noted, all comments referenced in this Order were filed in response to the *Notice* in WC Docket No. 11-10.

³⁴ See *Notice*, 26 FCC Rcd at 1517–18, paras. 24–25. Commenters have stated that the Commission must collect data, including deployment data, to fulfill its statutory obligations under section 254 and to modernize the Universal Service Fund to focus on broadband. See, e.g., AT&T Comments at 10, 12–14 (arguing that the Commission could benefit from having more complete data on the deployment of, and subscribership to, voice services and may have a legitimate need to understand the dynamics of broadband subscribership below the census tract in order to more precisely target its broadband policymaking activities, such as reforming the universal service program to support broadband); CWA Comments at 2, 5, 8 (stating that without access to reputable data, sufficiently granular and collected over time, the Commission is hamstrung in its efforts to fulfill its statutory obligations regarding universal service; also stating that tracking the availability of broadband networks is necessary for the Commission to target universal service funds to unserved areas in order to meet its statutory obligations to ensure that “quality services” be “available at just, reasonable and affordable rates” and to implement the goals of the National Broadband Plan as it transitions the Universal Service Fund to the nascent Connect America Fund; arguing that such data will help policymakers and other interested parties analyze the reasons for gaps in broadband adoption; and asserting that service quality data are essential to assess compliance with statutory mandates to provide affordable quality service to all Americans); Free Press Comments at 9 (stating that the Commission collects infrastructure information from the phone and cable industries and that such data are an indispensable component to responsible USF administration and oversight); California PUC Comments at 2 (stating that its proposed changes to the 477 program will enhance the ability of the Commission to meet its goals of ensuring universal service at just, reasonable and affordable prices, meeting public safety requirements, promoting broadband deployment and adoption, promoting competition and protecting consumers); see also Verizon July 12, 2010 Comments, WC Docket No. 10-90, at 6–7 (stating that the Commission must have reliable data to identify areas that are truly unserved by broadband to implement USF reform); NASUCA/NJ Rate Counsel Sept. 2, 2008 Reply, WC Docket 07-38, at 19, 26; CWA July 17, 2008 Comments, WC Docket 07-38, at 3.

³⁵ See *Notice*, 26 FCC Rcd at 1518–19, paras. 26–27; see also CWA Comments at 2 (asserting that without access to reputable data, sufficiently granular and collected over time, the Commission is hamstrung in its efforts to protect consumers and fulfill its statutory obligations, including those regarding public safety); MDTC Comments at 2, 8; NASUCA/NJ Rate Counsel Reply at 4 (concurring with CWA’s assertion).

³⁶ See *infra* subpart III.E.

³⁷ 47 U.S.C. § 1302(b). The BDIA defines advanced telecommunications capability as “high-speed, switched, broadband telecommunications capability that enables end users to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology.” 47 U.S.C. § 1302(d)(1). In the Broadband Progress Reports released to meet this reporting obligation, the Commission has used the term “advanced telecommunications capability” synonymously with “broadband.” See, e.g., *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, GN Docket No. 11-121, Eighth Broadband Progress Report, 27 FCC Rcd 10342, 10344, para. 1, n.2 (2012) (2012 Eighth Broadband Progress Report); *Inquiry Concerning the Deployment of* (continued....)

“determine whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion.”³⁸ If the Commission’s conclusion is negative, it must “take immediate action to accelerate deployment of such capability by removing barriers to infrastructure investment and by promoting competition in the telecommunications market.”³⁹ The Commission has observed that the data collected on Form 477 to date have been imperfect for the purpose of assessing broadband deployment and availability.⁴⁰ Prior to the *2012 Eighth Broadband Progress Report*, the Commission used Form 477 broadband subscription data⁴¹ as a proxy for fixed broadband deployment.⁴² Subscription data are a highly imperfect proxy for network deployment.⁴³ Deployment may be understated if no household in an area has chosen to subscribe to a service offering provided by a network, for example, and capability may be understated if no household has subscribed to the highest speed offering.⁴⁴ Because of the limitations of Form 477 subscription data, in the *2012 Eighth Broadband Progress Report*, the Commission relied solely on NTIA’s SBI deployment data to assess broadband deployment.⁴⁵ The

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Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act, GN Docket No. 10-159, Seventh Broadband Progress Report and Order on Reconsideration, 26 FCC Rcd 8008, 8009, para. 1, n.2 (2011) (*2011 Seventh Broadband Progress Report*).

³⁸ 47 U.S.C. § 1302(b).

³⁹ *Id.*

⁴⁰ *Notice*, 26 FCC Rcd at 1522, para. 33; *see also 2012 Eighth Broadband Progress Report*, 27 FCC Rcd at 10364–65, 10386, paras. 30 & 94; *2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8024–27, 8086–90, paras. 28–34 & App. F, paras. 22–34.

⁴¹ *See Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act; A National Broadband Plan for Our Future*, GN Docket Nos. 09-137, 09-51, Sixth Broadband Deployment Report, 25 FCC Rcd 9556, 9568–70, paras. 19–22 (2010) (*Sixth Broadband Deployment Report*) (relying on Form 477 subscription data to estimate broadband deployment and also to provide subscriptions rates); *2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8024–26, 8037–39, paras. 28–31, 58–61. In the *2011 Seventh Broadband Progress Report*, the Commission relied primarily on the first round of SBI data collected by NTIA to determine broadband deployment levels for the report’s finding, but also presented an estimate of broadband deployment based on Form 477 subscription data to maintain consistency with past reports. *2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8022, paras. 21–22. The Commission also relied on the Form 477 subscription data to estimate fixed adoption, but recognized the limitations of this approach. *See id.* at 8027, 8037–38, paras. 34 n.133, 58; *see also id.* at 8027, para. 34 n.133 (“Form 477 subscription data, as currently collected, are also an imperfect measure of adoption . . .”).

⁴² The Commission must use a “de minimis threshold” to estimate deployment with subscription data and has in the past used a “1 percent de minimis threshold,” under which it found broadband not to be deployed in a county if fewer than one percent of the households in that area subscribe to a broadband service meeting 4 Mbps/1 Mbps speed benchmark. *See Sixth Broadband Deployment Report*, 26 FCC Rcd at 9569–70, para. 21; *2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8026, para. 31 (showing that Form 477 analysis based on counties and a 1 percent “de minimis threshold” results in an estimate of 12.2 million unserved Americans, but an analysis based on census tracts and a 5 percent de minimis threshold results in an estimate of 51.0 million unserved Americans).

⁴³ *2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8027, 8086–90, para. 34 & App. F, paras. 22–34; *see also JSI Comments at 6* (“Subscribership of broadband service has never been a good proxy for deployment.”).

⁴⁴ *See 2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8087, App. F, para. 25 (“Subscribership data may also underestimate the deployment of broadband networks that can operate at higher speeds because broadband networks may be capable of higher speeds than are offered commercially.”).

⁴⁵ *2012 Eighth Broadband Progress Report*, 27 FCC Rcd at 10359–60, 10363–65, paras. 17, 28, 30; *see also, e.g., JSI Comments at 5* (arguing that it is important to track actual deployment of facilities, because without such data the Commission risks making policy decisions based upon erroneous information).

Commission also calculated, for the first time, fixed broadband adoption rates using both Form 477 subscription data and SBI deployment data.⁴⁶

16. Deployment and subscription data are also needed to fulfill our universal service mandate. The Communications Act of 1934, as amended,⁴⁷ requires the Commission to base its universal service policies on a number of principles, including 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 . . . that are reasonably comparable to those services provided in urban areas.”⁴⁸ The Commission currently relies on SBI data for a number of universal service policies.⁴⁹ For example, the Commission has relied on the SBI data to determine areas eligible for support in Connect America Phase I,⁵⁰ and has stated that it will rely on SBI data for determining areas eligible for support in Connect America Phase II.⁵¹ In addition, the Commission has sought comment on using SBI data to determine areas eligible for the Remote Areas Fund.⁵² Over time, the Commission’s reliance on the SBI data to support its universal service policies will transition to reliance on data collected on Form 477. Thus, the data collected on Form 477 are critical to measuring whether we are meeting our universal service mandate.

17. Accurate, detailed data about deployment and subscription also help further the Commission’s public safety goals. In disaster situations, for example, we use these data to identify service providers likely to be affected and alternative sources of critical communications. The collection of deployment and subscription data help the Commission monitor the performance of both legacy

⁴⁶ 2012 Eighth Broadband Progress Report, 27 FCC Rcd at 10386, paras. 94–96; *id.* at para. 95 (stating that “we combine the Form 477 Data reported at the census tract level with SBI Data aggregated up to the census tract level, and calculate an adoption rate: the ratio of residential connections to fixed broadband at a specified level of service quality (i.e., speed) (Form 477 Data) divided by the total number of households in the area with access to advertised broadband services of that service quality (SBI Data)”).

⁴⁷ Communications Act of 1934, 47 U.S.C. 151 *et seq.* (2006).

⁴⁸ 47 U.S.C. § 254(b)(3).

⁴⁹ See, e.g., *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 a Unified Intercarrier Compensation Regime; Federal-State Joint Board on Universal Service; Lifeline and Link-Up; Universal Service Reform—Mobility Fund*; WC Docket Nos. 10-90, 07-135, 05-337, 03-109, CC Docket Nos. 01-92, 96-45, GN Docket No. 09-51, WT Docket No. 10-208, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, 17681, paras. 51–52 (measuring the performance goal of ensuring universal availability of modern networks capable of delivering broadband and voice service to homes, businesses, and community anchor institutions by relying on National Broadband Map data and/or FCC Form 477), 17701, para. 103 n.168 (using National Broadband Map data as a proxy for identifying areas where an unsubsidized competitor offers broadband), 17720, para. 146 (using National Broadband Map data to identify unserved areas for purposes of Connect America Phase I incremental support) (2011) (*USF/ICC Transformation Order and FNPRM*); *pets. for review pending sub nom.* In re: FCC 11-161, No. 11-9900 (10th Cir. filed Dec. 8, 2011); see also *Connect America Fund et al.*, WC Docket No. 10-90 et al., Further Notice of Proposed Rulemaking, 27 FCC Rcd 14566, 14569–78, paras. 10–48 (seeking comment on using the National Broadband Map for a challenge process to identify areas eligible for an additional round of Connect America Phase I incremental support); *Wireline Competition Bureau Seeks Further Comment On Issues Regarding The Design Of The Remote Areas Fund*, WC Docket No. 10-90, Public Notice, 28 FCC Rcd 265 (Wireline Comp. Bur. 2013) (seeking comment on using the National Broadband Map to identify areas eligible for the Remote Areas Fund) (*Remote Areas Fund Public Notice*).

⁵⁰ *Connect America Fund*, et al., WC Docket No. 10-90 et al., Report and Order, FCC 13-73, para. 19 (rel. May 22, 2013).

⁵¹ *Connect America Fund*, et al., WC Docket No. 10-90 et al., Order, DA 13-1113, para. 5 (Wireline Comp. Bur. rel. May 16, 2013).

⁵² *Remote Areas Fund Public Notice*, 28 FCC Rcd at 267, paras. 5–7.

circuit-switched networks and broadband networks, to ensure that consumers can access emergency services as service providers transition from one technology to the other.⁵³

18. Moreover, in addition to the Commission's use of the data, there have been tremendous public interest benefits to other federal and state agencies and the general public from the FCC's and NTIA's data collections. Use of the National Broadband Map application, and access to the data via download or Application Programming Interfaces, has been extensive. The Federal Geographic Data Committee highlighted the success and use of the data in its annual report.⁵⁴ The Homeland Infrastructure Foundation Level Working Group has consistently used the broadband deployment data as part of its 17-sector critical infrastructure data asset,⁵⁵ and the National States Geographic Information Council have an active working group set up to address the National Broadband Map.⁵⁶ Researchers have used these data to address a range of technical and social issues on the communications landscape.⁵⁷ Finally, consumers and policy makers alike are more informed about deployment with the open access to data that the National Broadband Map provides, as a recent case study by the Wilson Center made clear.⁵⁸

19. We provide state public utility commissions with access to disaggregated Form 477 subscribership data, provided the commissions have appropriate confidentiality protections in place.⁵⁹ Additionally, pursuant to section 106(h)(1) of the Broadband Data Improvement Act, the Commission provides State Broadband Data and Development grant recipients ("eligible entities" under the BDIA) with access to "aggregate" Form 477 subscribership data to support the activities that are funded through the State Broadband Data and Development Grant Program.⁶⁰ The data are available to help eligible entities identify and track areas in each state that have low levels of broadband service deployment, and identify barriers to adoption of broadband service by individuals and businesses.⁶¹

III. DISCUSSION

20. The Commission is committed to meeting its obligations through decisions that are supported by current, reliable data. In the *Notice*, the Commission sought comment on a number of proposals to improve and streamline the Form 477 collection process. As discussed below, we conclude that we should revise our Form 477 collection to include data on deployment of fixed and mobile

⁵³ *Notice*, 26 FCC Rcd 1518–19, para. 26.

⁵⁴ See Federal Geographic Data Committee, 2011 Annual Report, <http://www.fgdc.gov/library/whitepapers-reports/annual%20reports/2011/2011-AR-lowres.pdf>.

⁵⁵ See Homeland Infrastructure Foundation –Level Data (HIFLD) Working Group, <https://www.hifldwg.org/>.

⁵⁶ See National States Geographic Information Council (NSGIC), Broadband Mapping Work Group, <http://www.nsgic.org/broadband-work-group>.

⁵⁷ See TechNet, The National Broadband Map: Early Results from Social Science Research, <http://www.technet.org/the-national-broadband-map-early-results-from-social-science-research/>.

⁵⁸ Bastian, Zachary and Byrne, Michael, Wilson Center, The National Broadband Map: A Case Study on Open Innovation for National Policy, available at <http://www.scribd.com/doc/109998799/The-National-Broadband-Map-A-Case-Study-on-Open-Innovation-for-National-Policy>.

⁵⁹ *2000 Data Gathering Order*, 15 FCC Rcd at 7761–62, paras. 95–96.

⁶⁰ 47 U.S.C. § 1304(h)(1). Section 106(i)(2) of the BDIA defines "eligible entity" as: (A) an entity that is either (i) an agency or instrumentality of a State, or a municipality or other subdivision (or agency or instrumentality of a municipality or other subdivision) of a State; (ii) a nonprofit organization that is described in section 501(c)(3) of the Internal Revenue Code of 1986 and that is exempt from taxation under section 501(a) of such Code; or (iii) an independent agency or commission in which an office of a State is a member on behalf of the State; and (B) is the single eligible entity in the State that has been designated by the State to receive a grant under this section. 47 U.S.C. § 1304(i)(2).

⁶¹ 47 U.S.C. §§ 106(e)(2), (3).

broadband networks and mobile voice networks, as well as company identification and emergency contact information. We will not require providers to submit broadband deployment data in predetermined speed tiers, and we eliminate the use of speed tiers for broadband subscription data. Instead, we require providers of broadband services simply to provide advertised speeds: the maximum advertised speed for fixed broadband and the minimum advertised speed for mobile broadband. Streamlining the collection in this manner will give the Commission greater flexibility to group and analyze broadband speed data in useful ways.⁶²

21. Shortly after release of this Order, the Wireline Competition Bureau will release a data specification that reflects the changes necessary to implement this Order. As they have with every previous revision of Form 477, Wireline Competition Bureau staff will work with providers to ensure that the providers have the tools they need to complete and file the form in the least burdensome manner possible. We delegate authority to the Wireline Competition Bureau, in consultation with the Wireless Telecommunications Bureau, to implement any technical improvements or other clarifications to the filing mechanism and forms that will make compliance easier for filers.

A. Deployment Data

22. The *Notice* sought comment on whether voice and broadband deployment data are necessary to fulfill a number of the Commission's statutory and policy goals.⁶³ Based on the record before us, we conclude that it is in the public interest for the Commission to collect data on deployment of fixed and mobile broadband networks and mobile voice networks. As noted above, many commenters agree that we should collect deployment data in order to help meet statutory obligations.⁶⁴

23. We continue the important collection of deployment data initiated by NTIA's SBI program and make modest but important adjustments to that collection.⁶⁵ We will collect data on where people have access to broadband service (what locations have services available), as well as the nature of the broadband services offered in those areas (for example, the speed and technology of the offering). As noted above, most providers have already been submitting deployment data through NTIA's SBI data collection process, but such collection will end next year. The changes we adopt to the SBI collection are designed to reduce filing burdens and increase reliability of the data. For example, the collection will occur in a single, unified process rather than on a state-by-state basis. A single, nationwide filing (that includes both deployment and subscription data) will help eliminate potential variations among states, and reduce to one the number of entities with which a multistate provider must coordinate for its filing. In addition, the elimination of speed tiers will reduce burdens associated with categorizing data into those tiers. The data will also be more reliable because all providers must file, and must certify to the accuracy upon filing. In short, and as we describe more fully below, the collection is carefully tailored to provide the Commission the data it needs to fulfill its mission, while taking steps to minimize the burden on filers. As a result, we expect that communications providers' overall reporting burden will decrease even though the Commission will be collecting more data.

1. Collection of Broadband Deployment Data

24. Our collection of deployment data will differ in some ways from NTIA's SBI data collection in order to ensure that these data will support our efforts to fulfill statutory directives and

⁶² We do not make any changes to the categories of providers that are required to file Form 477. *See Notice*, 26 FCC Rcd at 1525–26, paras. 43–45.

⁶³ *Notice*, 26 FCC Rcd at 1527, para. 49.

⁶⁴ *See supra* para. 14 & notes 33–35.

⁶⁵ NTIA's collection of SBI deployment data will end October 1, 2014, when providers submit data as of June 30, 2014.

policy goals.⁶⁶ We make several modest but important improvements to enhance the reliability and usefulness of the data. First, under the SBI collection, providers submit data to the states, so there may be as many as 56 different methodologies for collecting SBI data.⁶⁷ The Form 477 collection will be a single, uniform filing for all providers, which will reduce potential for distortion or misleading comparisons of the data. A national system should also reduce the burden on multistate filers, who today must often file their deployment data in different ways with different entities. Second, submission of data for NTIA's SBI program is voluntary;⁶⁸ the Form 477 filing is mandatory and requires filers to certify that the data are accurate, which will promote complete and accurate data.⁶⁹ Third, the SBI does not routinely separate residential from business data. The Form 477 deployment collection will require filers to distinguish, where appropriate, between residential and nonresidential deployment. This will help the Commission to better estimate the level of competition in a market and the number of providers that compete for a particular class of customers.⁷⁰ Fourth, the SBI program collects data by speed tiers that differ from the speed tiers the Commission uses to collect subscription data.⁷¹ We eliminate the use of speed tiers for both deployment and subscription data, thus ensuring that speed data are reported consistently across the collection. Fifth, the Form 477 collection will include information on the type of network technology deployed and spectrum bands used for mobile broadband deployment, which will refine our analysis of broadband deployment and spectrum utilization.⁷² Finally, Form 477 will not collect existing portions of NTIA's SBI data collection that are not essential to the production of the National Broadband Map, including subscriber-weighted average speeds by county.

25. Some commenters argue that the Commission need not collect broadband deployment data at this time because broadband deployment and availability information is available through NTIA's SBI data collection, which is made available through the National Broadband Map.⁷³ As noted above,

⁶⁶ The Government Accountability Office has recognized that the data set produced under the SBI program might not allow the Commission to perform the analyses required and that this could undercut our policy goals. See United States Government Accountability Office, *Telecommunications: Current Broadband Measures Have Limitations, and New Measures Are Promising but Need Improvement*, GAO 10-49, at 5-6 (Oct. 2009) (*October 2009 GAO Report*), available at <http://www.gao.gov/new.items/d1049.pdf>.

⁶⁷ *Id.* at 5-6.

⁶⁸ Department of Commerce, NTIA, State Broadband Data and Development Grant Program, Docket No. 0660-ZA29, Notice of Funds Availability, 74 Fed. Reg. 32545, 32556 (July 8, 2009), available at http://www.ntia.doc.gov/files/ntia/publications/fr_broadbandmappingnofa_090708.pdf (NTIA *State Mapping NOFA*) (indicating that furnishing the SBI Data is voluntary); 2011 *Seventh Broadband Progress Report*, 26 FCC Rcd at 8079-80, App. F, para. 5.

⁶⁹ See *October 2009 GAO Report* at 5-6; 2011 *Seventh Broadband Progress Report*, 26 FCC Rcd at 8079, 8082, App. F, paras. 5, 10. The Commission found that there was incomplete data for some broadband providers for certain areas in which other sources indicate they provide services. See 2011 *Seventh Broadband Progress Report*, 26 FCC Rcd at 8082, App. F, para. 11. Additionally, the Commission found that some awardees did not submit data on the speed of broadband service for all of their service areas. See *id.* at 8082-83, App. F, para. 12.

⁷⁰ See 2011 *Seventh Broadband Progress Report*, 26 FCC Rcd at 8083, App. F, para. 15. We recognize that in many cases, providers do not distinguish between deployment for residential versus nonresidential purposes, which is why we limit this aspect of the collection to distinguishing between those deployments where appropriate.

⁷¹ *Notice*, 26 FCC Rcd at 1532, para. 60.

⁷² Because mobile service providers use these spectrum and technology data for network design and in their ordinary course of business, adding these attributes to the collection will impose little additional burden. See *infra* paras. 42-43.

⁷³ See AT&T Comments at 13; California PUC Comments at 6; CenturyLink/Qwest Comments at 14; CWA Comments at 2, 4-5; NCTA Comments at 9; T-Mobile Comments at 6; USTelecom Comments at 8-9; Verizon Comments at 9-10; NASUCA/NJ Rate Counsel Reply at 10 (all arguing that the Commission should collect (continued....))

NTIA's SBI collection of deployment data is scheduled to expire in 2014; given the critical role such data play in meeting the goals of Congress and the Commission, it is our responsibility to ensure that no gap exists in the collection of these data.⁷⁴ We are, however, designing the transition such that it will likely include one overlapping collection: we anticipate that our first collection of deployment data on Form 477 will take place in September 2014, for data as of June 30, 2014. An overlapping collection helps us ensure that our own collection systems are functioning properly by allowing us to cross-check our results against NTIA's.⁷⁵ More than one overlap would provide us greater assurance, but would also increase the burden on filers, which we are striving to minimize. In any event, the Commission is likely to rely heavily on SBI data collected in the overlap collection, as the SBI collection is more settled and providers may still be adjusting to the revisions to Form 477.

26. We disagree with commenters who argue that the BDIA, which revised section 706, specifies that the collection of broadband deployment data needed to meet the requirements of section 706 should be accomplished through periodic surveys and reliance on Census Bureau data.⁷⁶ While the BDIA makes mention of these tools, section 706 does not identify these tools as the sole source of data for meeting our statutory responsibilities.⁷⁷ Nor does section 706 preclude the Commission from seeking broadband data from service providers.⁷⁸ Furthermore, whereas the section 706(a) inquiry involves broadband deployment and availability, the consumer survey is focused on "the national characteristics of the use of broadband service capability,"⁷⁹ and the Census data focus exclusively on subscribership.⁸⁰ Thus the consumer survey and Census Bureau data alone are insufficient to complete the section 706(a) inquiry. Finally, the deployment data that will be reported on Form 477 are not used by the Commission solely to fulfill its duties under section 706. As explained above, we use these data to meet other statutory obligations as well.⁸¹ We have evaluated existing data sources, and we believe that the changes to the

(Continued from previous page) _____

broadband deployment information beginning in 2015, or at such time as NTIA's broadband mapping program ends).

⁷⁴ See Letter from Lawrence E. Strickling, Assistant Secretary for Communications and Information, United States Department of Commerce, to Mignon L. Clyburn, Acting Chairwoman, FCC, WC Docket No. 11-10, at 1 (filed June 5, 2013). NTIA has offered guidance to the Commission as it assumes responsibility for the collection of the broadband deployment data that populates the National Broadband Map. *Id.*

⁷⁵ NTIA's final SBI data collection will include data as of June 30, 2014. It will take some time to implement the revised Form 477. After the adoption of this Order, Commission staff will finalize the form, develop the information technology necessary for any collection, and obtain approval for the collection from the Office of Management and Budget under the Paperwork Reduction Act, and provide training opportunities and educational tools to providers before requiring them to submit data on the revised form.

⁷⁶ See, e.g., CenturyLink/Qwest Comments at 5-6; CTIA Comments at 3 (arguing that the BDIA calls for certain data to be collected through consumer surveys). Specifically, CenturyLink and Qwest assert that the Commission should not adopt new or enhanced data collections for service providers without first demonstrating that the data it seeks is necessary in order for it to fulfill its nondiscretionary, statutory duties and that it has exhausted all other available and less burdensome alternatives. See CenturyLink/Qwest Comments at 7.

⁷⁷ See 47 U.S.C. § 1302. CenturyLink and Qwest acknowledge this. CenturyLink/Qwest Comments at 6-7.

⁷⁸ Indeed, the United States Court of Appeals for the District of Columbia Circuit stated that it "readily accepts that certain assertions of Commission authority could be 'reasonably ancillary' to the Commission's statutory responsibility to issue a report to Congress. For example, the Commission might impose disclosure requirements on regulated entities in order to gather data needed for such a report." *Comcast Corp. v. FCC*, 600 F.3d 642, 659 (D.C. Cir. 2010).

⁷⁹ 47 USC 1303(c)(1).

⁸⁰ 47 USC 1303(d).

⁸¹ See *supra* paras. 14, 16-17.

Form 477 data collection that we adopt today represent the least burdensome means of obtaining the data the Commission needs to fulfill its statutory duties.

27. We also disagree with commenters who assert that data already collected on Form 477, in conjunction with data available from Mosaik⁸² and other sources, including providers' websites, are sufficient to inform the Commission about the expansion of broadband networks.⁸³ While we do use commercial data routinely, we do not agree, in this case, that reliance on third-party deployment data will meet our needs.⁸⁴ Among the problems the Commission faces in using commercial data are restrictions on reuse and publication of the data on which the Commission would rely. In addition, the Commission found in the *2012 Eighth Broadband Progress Report* that while Mosaik data provide a useful tool for measuring developments in mobile broadband deployment, they may overstate the extent of mobile broadband coverage.⁸⁵ Furthermore, because Mosaik reports advertised coverage as reported to it by mobile wireless providers, each of which may use a different standard for determining coverage, the Mosaik data are not consistent across geographic areas and service providers.⁸⁶ Finally, tracking down deployment information on providers' websites would not provide consistent data for analysis, would be time consuming, and might not be comprehensive.⁸⁷ The information on providers' websites is not certified and is generally not available in a format consistent enough to provide the level of geographic granularity the Commission requires.

28. We find that it is necessary for the Commission to collect nationally standardized deployment data from *all* providers of broadband and mobile voice services to meet our obligations to assess the state of broadband availability, update our universal service policies and monitor whether our statutory universal service goals are being achieved, and meet our public safety obligations.⁸⁸ Satellite broadband providers urge the Commission to exempt them from any required reporting of deployment information on Form 477, arguing that it would be redundant because the extent of a satellite broadband

⁸² Mosaik Solutions (formerly American Roamer) is an independent consulting firm.

⁸³ See, e.g., CTIA Comments at 9; USTelecom Comments at 13 (recommending that the Commission rely on, among other things, the Centris online database, a national database that includes information on broadband services, and is updated quarterly with historical information back to 2004).

⁸⁴ See California PUC Comments at 3, 6 (arguing that the Commission should require wireline and wireless providers to report information directly); NASUCA/NJ Rate Counsel Reply at 10 (arguing that the Commission should not rely on existing third-party or publicly available data, or data from NTIA because "it is not an acceptable or sufficient substitute for the FCC's specific and direct collection of data from the multi-billion dollar industry that it regulates and that continues to undergo substantial market concentration").

⁸⁵ *2012 Eighth Broadband Progress Report*, 27 FCC Rcd at 10367–68, paras. 39–40. The Commission had similar concerns regarding the SBI data estimates of mobile broadband deployment. Specifically, the Commission had concerns that providers are reporting services as meeting the broadband speed benchmark when they likely do not. See *id.* at 10366–67, paras. 35–38. However, as explained above, we are making modifications to that collection to make the data more useful. See *supra* para. 24.

⁸⁶ See *2012 Eighth Broadband Progress Report*, 27 FCC Rcd at 10367–68, para. 40; *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, WT Docket No. 11-186, Sixteenth Report, 28 FCC Rcd 3700, 3704, para. 2, n.5 (*Sixteenth CMRS Competition Report*).

⁸⁷ Such searches would require Commission staff to be aware of all applicable websites, and assumes that each provider has a website containing the relevant data. See NASUCA/NJ Rate Counsel Reply at 3 ("The FCC, a government agency with limited resources, should not be compelled to go chasing after information on providers' web sites, private analysts' reports, and elsewhere.").

⁸⁸ See, e.g., CWA Comments at 3 ("The FCC should not rely on individual states to collect this data which would result in patchwork information with different sets of standards and gaps between types of data from one state to the next."); DC PSC Reply at 4; Pa. PUC Comments at 2.

provider's coverage area is already a matter of record as part of a satellite application or letter of intent.⁸⁹ Although the Commission requires space station applicants to provide predicted antenna gain contour(s) for each satellite transmit and receive beam,⁹⁰ the antenna gain contour is part of the general description of the satellite's capabilities and is not the same as deployment information.⁹¹ Without a comprehensive, uniform dataset with which to evaluate the state of broadband deployment by all providers, the Commission's analyses will be incomplete.⁹² This is particularly important given the difference in speed and capacity offered by different generations of satellites and their different service areas. Accordingly, we will require satellite broadband providers, in addition to all providers of broadband and mobile voice services, to submit deployment data on Form 477.⁹³

29. We continue our current practice of requiring all providers to submit relevant data. While we recognize that submitting any information imposes burdens, which may be most keenly felt by small providers,⁹⁴ we conclude that the benefits of having comprehensive data substantially outweigh the burdens. One of the primary objectives of Form 477 is to inform the Commission's efforts to encourage broadband deployment on a reasonable and timely basis to *all* Americans. We would miss important data relevant to this objective if we were to exempt small providers, which are likely to serve rural or insular areas of the United States, where barriers to deployment are typically the highest.⁹⁵ Additionally,

⁸⁹ See Hughes Comments at 3–4; ViaSat Comments at 3 (arguing that these data provide an excellent indicator of where a broadband satellite can provide service once it is operational, and therefore the Commission should allow satellite broadband providers to incorporate into their Form 477 submissions data already on file in connection with their underlying satellite authorizations); Satellite Industry Association Nov. 14, 2008 Comments, WC Docket No. 08-190, at 3 (asserting that the Commission should not require satellite broadband providers to produce infrastructure data). Satellite operators must provide the Commission with detailed technical information about their coverage areas, including beam plans, GXT files, and other Schedule "S" data, as part of their satellite license applications. 47 C.F.R. § 25.114(d)(3).

⁹⁰ 47 C.F.R. § 25.114(d)(3).

⁹¹ While useful for licensing purposes, the antenna gain contour does not indicate whether the geography of a particular location precludes use of the satellite for consumer broadband. For example, it would not indicate whether an individual consumer's home had a clear line of sight to the satellite or if, in contrast, geographic features or tall buildings obstruct line of sight to the satellite. Further, the antenna gain contour does not provide information regarding whether the beam is devoted wholly to individual consumer broadband or whether it is used for some combination of services by the satellite operator.

⁹² See *2012 Eighth Broadband Progress Report*, 27 FCC Rcd at 10368, para. 41 (excluding satellite broadband from the Commission's deployment finding because "[a]lthough the uniformity of satellite reporting has improved in the SBI Data over the past year, as of June 30, 2011, there was not a commercially available satellite offering that could provide a 4 Mbps/1 Mbps broadband service to consumers"); *2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8023, para. 26 n.112 (excluding satellite due to incomplete SBI Data and evidence that these services were offered below 4 Mbps/1 Mbps); see also *Inquiry Concerning the Deployment of Advanced Telecommunications Capability of All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, GN Docket No. 12-228, Ninth Broadband Progress Notice of Inquiry, 27 FCC Rcd 10523, 10537, para. 36 (2012) (seeking comment on how the Commission can best estimate satellite deployment).

⁹³ For purposes of Form 477, satellite voice and broadband providers are treated as fixed voice and broadband providers.

⁹⁴ See, e.g., OPASTCO, NTCA & WTA Joint Comments at 4 (arguing that "detailed new reporting requirements could provide difficult for small providers that manually maintain physical plant records, instead of using sophisticated computerized systems"); TSTC Comments at 2, 10 (arguing that if the Commission does decide to require significant changes to its current data collection requirements that will cause undue hardship upon small companies, rural LECs should be exempt from those requirements or allowed some alternative to the type of data collected).

⁹⁵ See AT&T Comments at 48–49.

obtaining this information from small and rural providers helps ensure that Connect America Fund support is indeed increasing broadband deployment and will help the Commission keep its universal service policies appropriately tailored over time.⁹⁶ At the same time, we are cognizant of the burdens of data collections. We therefore have taken steps to minimize burdens, including by making our deployment collection consistent, to a large extent, with NTIA's SBI data collection. For all of these reasons, we conclude that the benefits of collecting deployment data outweigh the burdens on small providers that may be associated with collection of these data.

30. *State Expertise in Broadband Deployment Collection.* As described above, our collection of broadband deployment data will be similar—although not identical—to NTIA's current SBI program collection of broadband deployment data. The filing mechanisms for the two collections, however, will differ significantly. Notably, in NTIA's SBI data collection, providers file their data with state entities, rather than directly with the federal government.⁹⁷

31. While we believe that filing deployment data with a single agency, rather than with as many as 56 separate entities, should make the mechanics of submitting deployment data less burdensome for filers, we also recognize that as a result of the SBI collection, the states have gained valuable experience with the collection of broadband deployment data. Indeed, many states have created new offices or agencies focused on broadband deployment issues, or tasked existing offices with such duties, and they potentially continue to play an important role in broadband issues. We encourage providers to continue to work with states on broadband issues. In addition, while the states will no longer participate directly in the collection and collation of broadband deployment data, there may be another role the states might play, such that the Commission, other government agencies, industry, and consumers continue to benefit from their expertise. We therefore direct the Wireline Competition Bureau to explore ways in which we might use the states' expertise to strengthen our own collection of broadband deployment data.

a. Fixed Broadband

32. We require each facilities-based provider of fixed broadband service to provide a list of all census blocks in which it makes broadband service available to end users.⁹⁸ Facilities-based providers of fixed broadband service will also be required to report the maximum speed offered in each census block where they offer service, breaking out reporting for residential and nonresidential services where appropriate, and by technology. We delegate authority to the Wireline Competition Bureau to determine whether the categorization of fixed-location technologies in the current Form 477 is adequate for collecting deployment information and to specify different categories if necessary.⁹⁹

⁹⁶ See *USF/ICC Transformation Order and FNPRM*, 26 FCC Rcd at 17679–83, paras. 46–59 (adopting the following performance goals for the Commission's efforts to preserve and advance service in high cost, rural, and insular areas through the Connect America Fund and existing support mechanisms: (1) preserve and advance universal availability of voice service; (2) ensure universal availability of modern networks capable of providing voice and broadband service to homes, businesses, and community anchor institutions; (3) ensure universal availability of modern networks capable of providing mobile voice and broadband service where Americans live, work, and travel; (4) ensure that rates are reasonably comparable in all regions of the nation, for voice as well as broadband services; and (5) minimize the universal service contribution burden on consumers and businesses).

⁹⁷ *NTIA State Mapping NOFA*, 74 Fed. Reg. at 32552; *2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8079, App. F, para. 5.

⁹⁸ As noted above, for purposes of Form 477, satellite broadband service providers are considered to be providers of fixed broadband service.

⁹⁹ Currently, entities that report they have fixed broadband connections in service must place each connection into one of nine mutually exclusive fixed-location technology categories: asymmetric xDSL, symmetric xDSL, other wireline (*i.e.*, all copper wire-based technologies other than DSL, and including Ethernet over copper), cable modem, optical carrier (fiber to the end user, and including Ethernet over fiber), satellite, terrestrial fixed wireless, electric power line, and all other (*i.e.*, a placeholder category for newly evolving technologies).

33. *Geographic Area.* Based on the record, we conclude that we should continue the SBI's practice of collecting fixed broadband deployment data by census block, but discontinue disparate treatment of census blocks larger than two square miles. Several commenters agree that deployment data should be collected at this geographic level.¹⁰⁰ We disagree with commenters who assert that reporting by census block is too burdensome.¹⁰¹ We find that reporting by census block will not be unduly burdensome for the majority of fixed broadband service providers, as many of these providers already voluntarily report deployment data by census block to NTIA's SBI program.¹⁰² Fixed broadband providers have, since June 2010, submitted the characteristics of their broadband deployment by census block to state mapping designees.

34. We recognize that the Commission currently collects fixed broadband subscription data by census tract, whereas we will collect fixed broadband deployment data by census block.¹⁰³ Some

¹⁰⁰ See AT&T Comments at 11–13; Verizon Comments at 11; USTelecom Comments at 12–13; CWA Comments at 2, 5–6; California PUC Comments at 4, 6, 7–8; ATIS Reply at 4–5 (all asserting that the FCC should collect availability data by census block, but only close to the expiration of the broadband mapping program); JSI Comments at 6–7 (recommending that deployment should be measured by census block, which provides sufficient granularity to identify where facilities are located while still providing some security for the exact location of facilities). Commenters in prior proceedings have advocated for more granular data for broadband services. See, e.g., Consumers Union *et al.* Aug. 1, 2008 Reply, WC Docket No. 07-38, at 2 (asserting that the Commission needs to collect detailed availability data by census block to help deployment and demand-stimulation efforts); GVNW Comments at 5 (commenting that Form 477 should be consistent with the National Broadband Map and therefore should be reported by census block unless over two miles); Letter from Ben Scott, Policy Director, Free Press, *et al.* to Chairman Julius Genachowski, FCC, WC Docket Nos. 07-38 and 08-190, GN Docket Nos. 09-67 and 09-81, at 1 (filed Aug. 11, 2009) (“We recommend issuing a Report and Order requiring all providers to report their service footprints by Census Block, broken down by technology type and speed tier.”); Letter from Helen M. Mickiewicz, Assistant General Counsel, California Public Utilities Commission, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 07-38, at 12 (filed Aug. 18, 2008). Commenters in prior proceedings have also suggested that policymakers need more granular data about voice services, particularly to address competition issues. See, e.g., NASUCA/NJ Rate Counsel Sept. 2, 2008 Reply, WC Docket No. 07-38, at 15 (“[M]ore granular data with respect to local exchange competition is required to assess fully the extent to which local competition is emerging and the goals of the Act have been fulfilled.”); People of the State of Illinois Sept. 2, 2008 Reply, WC Docket No. 07-38, at 12 (“[G]ranular data must be collected on a federal level, and shared with the states, their designees, and with the public if states are going to produce accurate and comprehensive mapping and analysis.”).

¹⁰¹ See, e.g., Sprint Comments at 6 (asserting that reporting by census block is too burdensome); TSTC Comments at 8–9 (asserting that reporting broadband deployment by census block would create a hardship for small companies).

¹⁰² See GVNW Comments at 5; CWA Reply at 7 (explaining that collecting data by census block would place “no additional burden . . . on carriers since census block granularity is already required by” another agency and that collection of this information would also “harmonize data sets between the Commission and NTIA, allowing more opportunities to cross-reference data between the two”).

¹⁰³ Census blocks are smaller than census tracts. There are approximately 11 million census blocks and approximately 74,000 census tracts. See U.S. Census Bureau, 2010 Census Summary File 1, Technical Documentation, at A-10 and A-12 (Sept. 2012), available at <http://www.census.gov/prod/cen2010/doc/sf1.pdf>; U.S. Census Bureau, 2010 Census Summary File 1 Urban/Rural Update (Sept. 2012). According to 2010 Census documentation, census blocks “are statistical areas bounded by visible features, such as streets, roads, streams, and railroad tracks, and by nonvisible boundaries, such as selected property lines and city, township, school district, and county limits and short line-of-sight extensions of streets and roads. Census Tracts are small, relatively permanent statistical subdivisions of a county or equivalent entity that are updated by local participants prior to each decennial census as part of the Census Bureau’s Participant Statistical Areas Program. The Census Bureau delineates census tracts in situations where no local participant existed or where state, local, or tribal governments declined to participate. The primary purpose of census tracts is to provide a stable set of geographic units for the presentation of statistical data. Census tracts generally have a population size between 1,200 and 8,000 people, with an optimum size of 4,000 people. A census tract usually covers a contiguous area; however, the spatial size of census tracts (continued....)

commenters assert that the Commission should collect both deployment and subscription data at the same geographic area level.¹⁰⁴ While we recognize that there may be benefits to collecting deployment and subscription data at the same geographic level, we find that continuing with the SBI collection's level of granularity for deployment data offers us opportunities for analysis at roughly the same or lesser burden to filers that they experience now. Therefore, we find that, on balance, the benefits of retaining the census block collection for deployment data, even while subscription data are collected at a more aggregated level, outweigh the burdens and the disadvantages of an asymmetrical collection.¹⁰⁵

35. At this time, we decline to gather fixed broadband deployment data at a level more granular than the census block because the added complexity and burden are unlikely at this time to provide a significant insight into how many residences and businesses lack access to service.¹⁰⁶ Although some commenters advocate for address-level reporting,¹⁰⁷ many providers do not maintain broadband network deployment data on an address-by-address basis.¹⁰⁸ Also, rural areas where networks are deployed may not have "street" addresses assigned. We are not persuaded that the benefits of requiring address-level data would outweigh the overall increase in the filing burden.¹⁰⁹ We acknowledge that

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varies widely depending on the density of settlement. Census tract boundaries are delineated with the intention of being maintained over a long time so that statistical comparisons can be made from census to census."

¹⁰⁴ See, e.g., Level 3 Reply at 3 (urging the Commission to adopt consistent geographic reporting formats for all data); GVNW Comments at 5 (asserting that "any new data collection efforts by the FCC should be coordinated").

¹⁰⁵ See, e.g., Free Press Comments at 3, 10–11 (calling for collecting availability data by census block, and for no changes at the present time to the subscription collection); JSI Comments at 6–7, 10 (recommending that the Commission track deployment data by census block, and subscribership data by census tract); cf. AT&T Comments at 10–11 (urging the Commission to collect voice availability data by census block and to collect voice subscribership data by census tract).

¹⁰⁶ Collecting fixed broadband deployment data at a level less granular than the census block may provide confusing and misleading information. For example, Maps 4 and 5 of the latest *Internet Access Services Report* show more providers of fixed data services in some rural tracts than in more populated parts of the region. *Internet Access Services: Status as of June 30, 2012*, Report, Industry Analysis and Technology Division, Wireline Competition Bureau (May 2013), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-321076A1.pdf (May 2013 *Internet Access Services Report*). Block-level data will permit us to explore this apparent anomaly in greater depth. Collecting fixed broadband deployment data at this granular level will also enable more sophisticated competitive analyses. See DOJ June 3, 2011 *Ex Parte* Letter at 2 (asserting that the Commission needs more precise data than is now publicly available if it is to perform more sophisticated competitive analyses).

¹⁰⁷ See Level 3 Reply at 3 (arguing that address level is less onerous than the current census tract); TSTC Comments at 8–9 (asserting that it is less burdensome to report these data on an address-by-address basis than by census tract or census block, particularly for those rural LECs that have street addresses assigned throughout their deployment area); California PUC Comments at 11; APPA *et al.* July 17, 2008 Comments, WC Docket No. 07-38, at 3; OPASTCO-RICA Nov. 24, 2008 PRA Comments, WC Docket No. 07-38, at 2–3 (requesting that the Commission allow them to provide address-level data because that would reduce reporting burdens on small businesses serving high-cost rural areas).

¹⁰⁸ See TSTC Comments at 8; NCTA Comments at 9; American Cable Association July 17, 2008 Comments, WC Docket No. 07-38, at 3.

¹⁰⁹ OPASTCO *et al.* Comments at 5 (noting that when the address-level option was initially proposed, providers were not required to submit data by census tract, and at that time did not maintain these data in their normal course of business, but now that this requirement is in place, the benefits of address-level reporting option may not be as pronounced today); AT&T Comments at 37 (asserting that address-level reporting would represent an enormous incremental data production burden for service providers); ITTA Comments at 2–3 (asserting that collecting data at the individual address level would significantly increase the burden of completing Form 477); Verizon Comments at 11 (stating that it would be inappropriate for the Commission to require data reporting at a level more granular than that required by NTIA, generally the census block, unless a provider voluntarily determined that a more granular level (such as address) would be less burdensome for it to provide); Time Warner Comments at 10 (asserting that (continued....))

NTIA's SBI program collects address- and/or street-segment data for fixed broadband service in particular census blocks—those larger than two square miles.¹¹⁰ Not only do we not expand this requirement to other census blocks, but we remove it for large blocks as well, thus reducing the burden on filers that serve large blocks. While there are approximately 6.2 million populated census blocks, there are approximately 118.1 million households, approximately 133.3 million housing units, and millions of business locations in the United States.¹¹¹ Thus, moving from census block to address-level reporting could lead to a significantly higher burden.¹¹² In addition, while there is a definitive source for the location and size of census blocks (the U.S. Census Bureau), there is no similar source for the location of all homes, making it substantially harder to map provider submissions and relate those to end-user locations. Some commenters point out that accuracy may actually decrease when granularity increases to the address level because all service providers do not necessarily record addresses in a standardized, uniform manner.¹¹³ We conclude that requiring providers to report fixed broadband deployment data by census block appropriately balances the burdens of reporting this information to the Commission with the level of granularity required to carry out our statutory duties.

36. *Speed data.* Instead of defining speed tiers for the reporting of fixed broadband deployment data, as the SBI collection does, we will require filers to provide the maximum advertised speed for each technology used to offer service in each census block.¹¹⁴ For consistency in our collection, we adopt the same approach for subscription data, which will also reduce filing burdens by avoiding the need to categorize the same service offering differently for deployment and subscription collections.¹¹⁵

37. Relevant speeds and broadband technologies evolve over time.¹¹⁶ As a result, the Commission has found it necessary in the past to revise the speed tiers it uses to collect data.¹¹⁷ Speed tiers may be revised for a variety of reasons, including reflecting modern service offerings for purposes of

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forcing broadband providers to report address-level data would require providers to undo their recent system modifications and “start over again”); Windstream July 17, 2008 Comments, WC Docket No. 07-38, at 2 (asserting that Windstream and other small providers would incur substantial costs if it had to report address-by-address deployment data); Connected Nation July 17, 2008 Comments, WC Docket No. 07-38, at ii-iii; California PUC July 17, 2007 Reply, WC Docket No. 07-38, at 15, 18; Consumers Union, Consumers Federation of America, and Free Press July 17, 2007 Reply, WC Docket No. 07-38, at 2, 13–15.

¹¹⁰ For the 2010 Census, large-blocks represent about 2.3% of blocks (253,358/11,155,486) and about 3 percent of the population (9,067,698/312,471,327) of the U.S. and Puerto Rico. U.S. Census Bureau, 2010 Census Summary File 1 Urban/Rural Update (Sept. 2012).

¹¹¹ See U.S. Census Bureau, 2010 Census Summary File 1, Technical Documentation, at A-10 and A-12 (Sept. 2012), available at <http://www.census.gov/prod/cen2010/doc/sf1.pdf>; U.S. Census Bureau, 2010 Census Summary File 1 Urban/Rural Update (Sept. 2012).

¹¹² As computer and GIS technology evolve, however, such a collection might be less burdensome in the future.

¹¹³ See, e.g., NCTA Comments at 9 (asserting that census blocks are likely more accurate than address level reporting); AT&T Comments at 36–37; AT&T Reply at 8.

¹¹⁴ We believe that the relatively predictable nature of demand in a fixed network (that is, a known number of customers per aggregation point) and the relative stability of the signal strength in a fixed network mean that the maximum advertised speed is a reasonably reliable indicator of the speed of service that subscribers receive. Office of Engineering and Technology & Consumer and Governmental Affairs Bureau, FCC, *Measuring Broadband America: A Report on Consumer Wireline Broadband Performance in the U.S.* 16 (2011) (*First Measuring Broadband America Report*), available at http://transition.fcc.gov/cgb/measuringbroadbandreport/Measuring_US_-_Main_Report_Full.pdf.

¹¹⁵ See *infra* para. 62.

¹¹⁶ See *2012 Eighth Broadband Progress Report*, 27 FCC Rcd at 10346, paras. 6–7.

¹¹⁷ See, e.g., *2008 Broadband Data Gathering Order and Further Notice*, 23 FCC Rcd at 9699–9703, paras. 19–22.

assessing broadband availability in the Commission's broadband progress reports and reflecting Connect America policies and requirements.¹¹⁸ But when broadband providers assign their services a specific speed tier, any changes to those tiers are significantly delayed until the providers report, and the Commission publishes, data sorted into the revised tiers. In addition, changes to the speed tiers limit the Commission's (and others') ability to analyze data over time by potentially removing tiers that had been used previously. We believe that requiring the submission of maximum advertised speed per census block, rather than requiring filers to organize their deployment data into speed tiers before submitting it, will increase the usefulness of the data by allowing the Commission to define speed tiers as needed for its purposes, without requiring modifications to the form itself. It will also allow the Commission and others to analyze speeds over time without regard to the categories of speed into which providers reported in past years. Finally, we believe that not requiring providers to categorize their offerings into our tiers will reduce their reporting burden.

38. For fixed broadband deployment data, we also tailor our treatment of speed reporting to reflect how services are offered to residential and nonresidential consumers. For residential broadband deployment, as with the SBI collection, Form 477 will collect the fastest advertised speed providers offer potential subscribers in each census block covered by their deployment. For nonresidential broadband deployment, the form will collect the maximum contractual committed information rate offered on nonresidential Internet access services. Form 477 will require filers to distinguish between residential and nonresidential deployment where appropriate.¹¹⁹ Accordingly, to the extent that a provider does not make the distinction in its filing between residential and nonresidential deployment, it will not distinguish between advertised and contractually committed speeds.

39. *Advertised vs. Actual Speeds.* The Commission currently collects data on advertised speeds. The Commission sought comment on whether it should continue to collect data only on advertised speeds, or whether, for example, providers should provide information about actual speeds by geographic area, or speeds that extend beyond the access network (for example, end-to-end speeds that reflect an end user's typical Internet performance).¹²⁰ We conclude that it is not appropriate or feasible to collect actual speed information from broadband providers via Form 477. Many commenters expressed

¹¹⁸ See, e.g., *2012 Eighth Broadband Progress Report*, 27 FCC Rcd at 10360, para. 7 (stating that in the *Sixth Broadband Deployment Report*, the Commission updated its speed benchmark from 200 kbps in both directions to 4 Mbps/1 Mbps services); *USF/ICC Transformation Order and FNPRM*, 26 FCC Rcd at 17697, paras. 94–95 (adopting an initial minimum broadband speed benchmark for Connect America Fund recipients of 4 Mbps downstream and 1 Mbps upstream other than for the Phase I Mobility Fund); *id.* at 17673, 17702, paras. 22, 105 (explaining that price cap carriers electing to receive additional support must provide broadband with actual speeds of at least 4 Mbps downstream and 1 Mbps upstream); *id.* at 17674, para. 27 (explaining that rate-of-return carriers receiving legacy universal service support, or Connect America support to offset lost intercarrier compensation revenues, must offer broadband service with actual speeds of at least 4 Mbps downstream and 1 Mbps upstream, upon their customers' reasonable request); *id.* at 17700, 17703, paras. 101, 105 (requiring carriers in areas with no terrestrial backhaul to offer broadband service speeds of at least 1 Mbps downstream and 256 kbps upstream within the supported area served by satellite middle-mile facilities); *id.* at 17703, para. 105 (requiring 3G speeds (200 kbps/50 kbps minimum at cell edge) or 4G speeds (768 kbps/200 kbps minimum at cell edge) to receive support under the Mobility Fund Phase I).

¹¹⁹ In some instances, the same network facilities provide services to both residential and nonresidential services in the same area; in such cases we would not expect providers to make a distinction between residential or nonresidential deployment. In some places, however, providers may target only residential or nonresidential subscribers, or they may have deployed facilities capable of delivering different services, including higher speeds, to nonresidential subscribers than those facilities serving residences. For example, a provider might offer 1 Gbps service on dedicated facilities to a single enterprise customer in a block, while providing the surrounding residential neighborhood 10 Mbps service. In such cases, we expect providers to be able to differentiate between residential and nonresidential deployment.

¹²⁰ *Notice*, 26 FCC Rcd at 1531, para. 59.

concern because there is no way for providers to report actual speed information in a meaningful way.¹²¹ Commenters explain that the collection of these data is a highly complex, time consuming, and expensive undertaking that requires the use of specialized equipment in the providers' networks and at their customers' premises.¹²² As the Commission found in 2008, "the record of this proceeding does not identify a methodology or practice that could be applied, consistently and by all types of broadband filers, to measure the information transfer rates actually observed by end users."¹²³ We continue to believe that conclusion is correct.

40. The Commission has undertaken a program to measure actual speeds directly for a sample of end users of fixed broadband, and is considering a similar program for mobile broadband.¹²⁴ These initiatives are more cost effective than using the Form 477 data collection for this information, and have produced speed information useful to policymakers, consumers, and other stakeholders. In August 2011, the Commission released a report on actual broadband speeds, based on data submitted by broadband providers and end-user volunteers.¹²⁵ The report established for the first time that the majority of residential wireline broadband consumers are receiving performance close to the level advertised by their providers.¹²⁶ It also identified providers that fell short of advertised speeds.¹²⁷ On July 19, 2012, the Commission's Office of Engineering and Technology and Consumer and Governmental Affairs Bureau released the *Second Measuring Broadband America Report*.¹²⁸ The *Second Measuring Broadband America Report* found "striking across-the-board improvements on key metrics underlying user performance."¹²⁹ In particular, the *Second Measuring Broadband America Report* found that Internet service provider (ISP) promises of performance are more accurate, providers are more consistent in their ability to deliver advertised speeds, and consumers are subscribing to faster speed tiers and receiving faster speeds.¹³⁰ Further, the Commission is considering questions concerning the types of metrics for

¹²¹ AT&T Comments at 40–41; CTIA Comments at 12–14; GVNW Comments at 6; Hughes Comments at 4; ITTA Comments at 4; Sprint Comments at 7–8; T-Mobile Comments at 10–12; USTelecom Comments at 15; Level 3 Reply at 3; Verizon Comments at 11–12.

¹²² AT&T Comments at 40; USTelecom Comments at 15; Level 3 Reply at 3; Verizon Comments at 11–12; Verizon Reply at 6–7.

¹²³ *2008 Data Gathering Order and Further Notice*, 23 FCC Rcd at 9702–03, para. 22.

¹²⁴ The Commission is engaged in an effort, in partnership with the industry and the public research community to measure the actual speed and performance of broadband service. See *First Measuring Broadband America Report; FCC to Launch Mobile Broadband Services Testing and Measurement Program*, CG Docket No. 09-158, Public Notice, 27 FCC Rcd 10875 (2012) (proposing a program to develop information on mobile broadband service performance in the United States utilizing the collaborative model underlying the success of the Commission's fixed broadband program).

¹²⁵ See *First Measuring Broadband America Report*. The Report was the culmination of a yearlong effort involving the cooperation of ISPs representing 86% of all residential wireline broadband consumers in the United States to measure broadband performance to the homes of a representative sampling of thousands of volunteers. More than 100 million individual tests were performed on each volunteer's broadband service.

¹²⁶ See *id.* at 15–16, Charts 1–3.

¹²⁷ See *id.*

¹²⁸ Office of Engineering and Technology & Consumer and Governmental Affairs Bureau, FCC, *2012 Measuring Broadband America July Report: A Report on Consumer Wireline Broadband Performance in the U.S.* 4 (2012) (*Second Measuring Broadband America Report*), available at <http://transition.fcc.gov/cgb/measuringbroadbandreport/2012/Measuring-Broadband-America.pdf>.

¹²⁹ *Id.* at 4.

¹³⁰ *Id.* at 4–5.

speed or other performance characteristics that could prove useful to consumers.¹³¹ We expect to continue our efforts to improve the availability of information describing broadband performance in the United States.¹³²

41. As an alternative to requiring the reporting of actual speeds, the Commission sought comment in the *Notice* on whether it should collect data on contention ratios (the ratio of the potential maximum demand to the actual bandwidth available) or some other measure of network congestion.¹³³ In response, Free Press asserts that contention ratios are a useful proxy for actual speeds because they reflect the degree to which customers share capacity, and thus the level of oversubscription on a local network.¹³⁴ However, several commenters dispute the usefulness of contention ratios, asserting that a contention ratio “would mean nothing to the typical consumer and little, if anything, to most policymakers,” and that given the many variables that would go into determining a contention ratio, “the resulting data are unlikely to be of any practical use or relevance.”¹³⁵ These commenters assert that a requirement to report contention ratios would be complex and burdensome, as there is no single “contention ratio” applicable to a given subscriber or network because broadband traffic traverses numerous segments in a network, each of which has a different contention ratio.¹³⁶ Although we believe that understanding network capacity and congestion concerns is useful, we agree that it would be impractical to collect such data through Form 477. We agree with those commenters who argue that the burden of calculating contention ratios would, at this time, outweigh any useful benefits that the Commission might glean from such information. We thus decline to require providers to report contention ratios.

b. Mobile Broadband

42. As with fixed broadband, we continue NTIA’s SBI collection of mobile broadband coverage areas, with certain modifications to reduce burdens while improving the data to fulfill our statutory purposes and policy goals.¹³⁷ These modifications include additional technology codes, separation of coverage areas by unique combinations of technology, spectrum and speed, and minimum, rather than maximum, advertised speed. Specifically, for each mobile broadband network technology (e.g., EV-DO, WCDMA, HSPA+, LTE, WiMAX) deployed in each frequency band (e.g., 700 MHz, Cellular, AWS, PCS, BRS/EBS), facilities-based mobile broadband providers should submit polygons representing the nationwide coverage area (including U.S. territories) of that technology. The data associated with the coverage area should depict the coverage boundaries where, according to providers, users should expect the minimum advertised upload and download data speeds associated with that

¹³¹ *Consumer and Governmental Affairs Bureau Seeks Comment on “Need for Speed” Information for Consumers of Broadband Services*, Public Notice, CG Docket No. 09-158, 26 FCC Rcd 5847 (2011).

¹³² *FCC Announces Commencement of 2012 Measuring Broadband America Performance Study of Residential Broadband Service in the United States*, Public Notice, 27 FCC Rcd 1680 (2012) (“A key part of the FCC’s Consumer Empowerment Agenda will be expanding the Measuring Broadband project this year, including publishing two reports in 2012, and expanding the study to include more technologies, extending the study into new regions of the country, and planning to publish more kinds of data.”).

¹³³ *Notice*, 26 FCC Rcd at 1531, para. 59.

¹³⁴ See Free Press Comments at 5–6.

¹³⁵ See Verizon Comments at 13; NCTA Comments at 14–15; AT&T Comments 41. AT&T explains, for example, that a large number of moderate users sharing a particular link with a relatively high contention ratio (e.g., 100 residents of a retirement community browsing the web and sending email) may experience *less* congestion than a small number of heavy users sharing a particular link with a relatively low contention ratio (e.g., 10 residents of a college dormitory using peer-to-peer applications). AT&T Comments at 41.

¹³⁶ Verizon Reply at 7–8; NCTA at 14–15; AT&T Comments at 41.

¹³⁷ See, e.g., California PUC Comments at 8 (recommending that the Commission collect wireless deployment information in the form of shapefiles with speed and spectrum information).

network technology in that frequency band.¹³⁸ If a provider advertises different minimum upload and download speeds in different areas of the country using the same technology and frequency band (e.g., HSPA+ on AWS spectrum), the provider should submit separate polygons showing the coverage area for each speed. If a provider does not advertise the minimum upload and/or download speeds, the provider must indicate the minimum upload/download data speeds that users should expect to receive for the deployed technology in the given frequency band.

43. Collecting these deployment data on mobile broadband network technologies, in conjunction with data on spectrum and minimum advertised speeds, will improve the data needed to fulfill our statutory purposes and policy goals. As with fixed broadband deployment data, we direct filers to report data on advertised speeds and reduce the burden of associating these speeds with predetermined speed tiers. To reduce burdens, we also allow mobile broadband providers to submit coverage maps on a nationwide rather than state-by-state basis. To reflect changes in both Geographical Information Systems (GIS) and mobile technologies and spectrum bands used over time, the Wireline Competition Bureau, in consultation with the Wireless Telecommunications Bureau, will update coverage resolution, network or transmission technologies and spectrum bands used on Form 477 as necessary.

44. Currently, the Form 477 collection requires facilities-based mobile wireless broadband service to submit data indicating census tracts in which “service is advertised and available to actual and potential subscribers,”¹³⁹ and such service offerings must be grouped into predetermined speed tiers.¹⁴⁰ We retain this collection while taking measures to reduce the burden by eliminating the requirement that providers group their offerings into speed tiers. These data remain necessary to determine accurately mobile broadband service availability in cases where a provider’s mobile network deployment footprint differs from its facilities-based service footprint, that is, where service is advertised and available to actual and potential subscribers.¹⁴¹ Deployment and availability are often the same for providers but, in

¹³⁸ In contrast with fixed broadband, where the maximum advertised speed is a reasonably reliable indicator of the speed of service that subscribers receive, wireless broadband data speeds vary tremendously depending on the user’s location (signal quality), the serving cell capacity, and traffic loads in the service area. Wireless broadband users are more likely to consistently experience data speeds at the lower end of the advertised speed range and could also experience the higher speeds under certain conditions. Typically, a service provider’s targeted minimum data speed in a market is a primary driver of the wireless network design that determines the market coverage boundaries. Consistent with that, the submitted coverage boundaries would depict where users should expect the minimum upload/download data speeds for the deployed technology in the given frequency band.

¹³⁹ In 2004, the Commission adopted the requirement that “filers reporting mobile wireless broadband subscribers on Form 477 also provide a list of Zip Codes that best represent the filer’s mobile wireless broadband coverage areas.” *2004 Broadband Data Gathering Order*, 19 FCC Rcd 22340, 22349–50, para. 18 (2004). As explained in the accompanying Form 477 instructions adopted in that *Order*, “the Zip Codes reported” as those that best represent the filer’s mobile wireless broadband coverage areas “should be the Zip Codes in the state in which the mobile wireless broadband service provider’s service is advertised and available to actual and potential subscribers.” *2004 Broadband Data Gathering Order*, 19 FCC Rcd at 22393–94. The existing census tract collection was implemented in the 2008 Form 477 Order, which increased the granularity of the prior zip code based collection, but did not otherwise modify the substance of what must be reported. *2008 Broadband Data Gathering Order and Further Notice*, 23 FCC Rcd 9691, 9698–99, para. 16 (2008) (“In the current Form 477 data collection process, mobile wireless broadband service providers report the number of connections they provide in particular states, and they report the 5-digit ZIP Codes that best represent their broadband service footprint. . . . [W]e find that the benefits of reporting service footprints at the Census Tract level outweigh the costs of the additional reporting. Therefore, we require mobile wireless broadband service providers to report the Census Tracts that best represent their broadband service footprint for each of the speed tiers in which they offer service.”).

¹⁴⁰ *2008 Broadband Data Gathering Order and Further Notice*, 23 FCC Rcd 9691, 9698–99, para. 16.

¹⁴¹ In the annual Wireless Competition Reports, the Commission has noted that mobile deployment data alone is not an accurate indicator of where service is actually available. See, e.g., *Sixteenth CMRS Competition Report*, 28 FCC Rcd 3700, 3705, para. 2 (2013) (“We also note that these data estimate the number of providers with network coverage in these census blocks, which can often differ from the number of providers actually offering service to (continued....)”).

some instances, they are not. The combination of data on network deployment, service availability, and subscription will assist the Commission in a number of analyses, including those in the Broadband Progress Reports and Mobile Wireless Competition Reports, the state of competition in the mobile wireless industry, and review of mergers and spectrum transactions.¹⁴²

45. The mobile broadband deployment data, in conjunction with similar data on mobile voice deployment, will enable the Commission to analyze the extent of deployment in different spectrum bands, and technologies. These data will enable us to analyze deployment in different spectrum bands, and to structure our spectrum, infrastructure, and competition policies effectively and efficiently in a rapidly evolving mobile marketplace. The National Broadband Plan states that mobile broadband is poised to become a key platform for innovation in the United States over the next decade. For mobile service deployment, spectrum is an essential input as the transmission pipe. Understanding how spectrum bands and technologies have actually been deployed in different areas will greatly facilitate the formulation of sound and informed spectrum policies, including how best to make additional spectrum available for licensed, unlicensed and opportunistic uses. The mobile broadband deployment data, indicating speed, technology, and spectrum band used, will enable us to better assess the wireless marketplace to ensure that our spectrum and competition policies accommodate growing demand and evolving technologies in the provision of mobile broadband services.

46. Today, NTIA's SBI collection includes information on speed and spectrum used for the provision of wireless broadband services.¹⁴³ Spectrum information, however, is not clearly linked to coverage boundaries. Defining the standard for reporting network coverage boundaries that reflect the broadband speeds of a deployed technology in a given frequency band will ensure that we have consistent and comparable deployment data by various providers. Collecting spectrum information in this manner also will give us better information on the actual use of spectrum bands, enabling informed spectrum management policies.

47. Certain commenters argue that other sources of data on spectrum use are already available to the Commission and that the collection of spectrum data through Form 477 is unnecessary.¹⁴⁴ However, the sources cited by commenters, including the Spectrum Dashboard and license build-out notifications, are insufficient for analyzing deployment by technology and by band. The Spectrum Dashboard provides information on spectrum holdings but not the extent to which providers are using their spectrum to deploy networks and offer services. The licensee build-out notifications do not indicate the type of service or technology deployed, are filed infrequently, and in some cases, are not a reflection of networks that are being used to offer service. Sprint suggests that the Commission could ask providers to respond on an ad hoc basis to inquiries about their spectrum use in particular areas.¹⁴⁵ However, this

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consumers who live in these census blocks.”); *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, WT Docket No. 10-133, Fifteenth Report, 26 FCC Rcd 9664, 9707, para. 47 (2011) (“Because a facilities-based service provider may offer service to consumers in only part of any given CMA, which often is made up of several counties, a consumer may have fewer choices of service providers than the total number of providers offering service in his or her CMA.”).

¹⁴² See, e.g., *2012 Eighth Broadband Progress Report*, 27 FCC Rcd at 10366, para. 35; *Sixteenth CMRS Competition Report*, 28 FCC Rcd at 3743–44, para. 42.

¹⁴³ National Broadband Map, Blog, Geodatabase Documentation, http://www.broadbandmap.gov/blog/wp-content/uploads/2011/02/Transfer_Model_Tech_Spec.html#DomainSPECTRUMUSED.

¹⁴⁴ See T-Mobile Comments at 18 (asserting that the Commission has already conducted a spectrum inventory, the results of which are available on the Spectrum Dashboard); Verizon Comments at 16 (explaining that the Commission already collects deployment data in the form of its spectrum license build-out requirements); CTIA Comments at 15–16 (arguing that neither the BDIA nor the Act requires collection of these data).

¹⁴⁵ See Sprint Comments at 6.

method would not provide us with the complete set of data necessary to perform the comprehensive analyses described above.

48. We find that burdens on mobile wireless providers associated with providing digital representations of and geospatial data on their network coverage areas are not significant, and are outweighed by the public interest benefits associated with our collection. The geospatial data we are collecting on spectrum and technology are used by mobile service providers for radio frequency (RF) network design and are an integral part of every mobile service provider's ordinary course of business. Accordingly, mobile deployment data by spectrum bands and network technology should be readily available to mobile service providers given that any mobile network deployment plan would include both the spectrum and the network technology to be used for such deployment.

49. In addition, many providers develop and maintain such data in order to publish maps of their coverage areas on their websites and in other promotional materials, and certain operators have provided network coverage boundaries to Mosaik.¹⁴⁶ Certain providers also have submitted coverage area boundaries to the Commission as part of wireless transaction proceedings,¹⁴⁷ and many providers have submitted coverage area boundaries in the SBI data collection.¹⁴⁸ There are multiple GIS (Geographical Information Systems) platforms capable of creating and managing geospatial data on mobile network coverage areas,¹⁴⁹ and there are many GIS specialists and engineering consultants in the United States who are able to provide expertise and develop such data for providers that do not have internal GIS resources.¹⁵⁰

50. In the *Notice*, the Commission sought comment on how any reporting should account for the variability of signal strength and capacity in a network that includes mobile users.¹⁵¹ The record indicates that measuring signal strength is a complex and time-consuming endeavor due in significant part to the extreme variability in the propagation and reception of wireless signals. The strength of the signal received by any given subscriber can be affected by a broad range of factors, including topography, foliage, weather, type of structure for in-building reception, the number and behavior of other subscribers connected to the same cell site, and whether and how fast the subscriber is moving through the cell site's coverage area.¹⁵² As a result, mobile signal strength, speed, and capacity measurements can change from minute to minute or between locations. While the data would be valuable, we are not convinced that there is a practical, reliable way at this time to assess signal strength and capacity through a standardized data collection. We therefore decline to revise Form 477 to require providers to account for these variables.

¹⁴⁶ *Sixteenth CMRS Competition Report*, 28 FCC Rcd at 3704, para. 2, n.5.

¹⁴⁷ See, e.g., Letter from Richard Rosen, Counsel for AT&T, Inc., to Marlene H. Dortch, Secretary, FCC, WT Docket No. 11-65, at 1-2 (filed Aug. 8, 2011) ("Shapefiles corresponding to AT&T's estimated coverage area for its pre- and post-merger LTE deployment plans in certain states are being filed with the Highly Confidential version of this submission.").

¹⁴⁸ For a comprehensive list of providers that contributed data to the National Broadband Map and how the data were received, see National Broadband Map, NBM Broadband Provider List, http://www2.ntia.doc.gov/files/broadband-data/NBM_Broadband_Provider_List_June_2012.xlsx (last visited June 26, 2013).

¹⁴⁹ See University of Kentucky, <http://www.uky.edu/KGS/gis/DVGQ/format.html#converting> (last visited Oct. 17, 2012).

¹⁵⁰ For a list of associations representing GIS professionals, see Esri, *Professional Organizations*, <http://edcommunity.esri.com/aboutGIS/professionalOrganizations.cfm> (last visited Oct. 10, 2012).

¹⁵¹ *Notice*, 26 FCC Rcd at 1532, para. 61.

¹⁵² AT&T Comments at 42-43; CTIA Comments at 10-13; T-Mobile Reply at 3; Sprint Comments at 7-8; Verizon Comments at 11-12.

2. Collection of Voice Deployment Data

a. Fixed Voice

51. In the *Notice*, the Commission sought comment on whether the collection of fixed voice network deployment data is warranted.¹⁵³ The national telephone subscription rate has remained high over the last decade, indicating expansive (indeed, nearly ubiquitous) availability of service.¹⁵⁴ The Wireline Competition Bureau recently collected data on the areas served by incumbent local exchange carriers through the Study Area Boundary Data Collection, and these boundaries typically show the area that an incumbent LEC is obligated to serve with fixed voice service.¹⁵⁵ For other fixed providers, we will be able to infer voice availability from their fixed broadband deployment data, as many providers offer both voice and broadband over the same network. Collecting additional fixed voice network deployment data on Form 477 would be largely redundant and would impose an additional burden on voice providers. Therefore, we will not require providers of fixed voice services to report deployment data on Form 477.

b. Mobile Voice

52. We will require facilities-based mobile wireless voice providers to submit geospatial data of their coverage area boundaries. Unlike fixed voice availability, which, as we explain above, is relatively stable, the combination of footprint, technology, and spectrum for mobile voice services is changing more rapidly. Collecting mobile voice deployment data therefore provides significant public interest benefits that outweigh the burdens associated with the collection. In any event, we find that requiring mobile wireless providers to submit their coverage area boundaries will not add a significant burden.¹⁵⁶

53. Providers should submit polygons representing geographic coverage nationwide (including U.S. territories) by transmission technology (e.g., GSM, CDMA, HSPA, VoLTE) and by frequency band (e.g., 700 MHz, Cellular, PCS, AWS). For example, if a provider offers both GSM and CDMA voice services in both the Cellular band and the PCS band, then this would result in four different polygons: (1) GSM in the Cellular band; (2) CDMA in the Cellular band; (3) GSM in the PCS band; and (4) CDMA in the PCS band. The polygons should represent voice coverage boundaries where providers expect users to be able to make, maintain, and receive voice calls. To reflect changes in both GIS and mobile technologies, and spectrum bands used over time, the Wireline Competition Bureau, in consultation with the Wireless Telecommunications Bureau, will update coverage resolution, network or transmission technologies, and spectrum bands used on Form 477.

54. As discussed above, the Spectrum Dashboard and license build-out notifications are insufficient for analyzing deployment.¹⁵⁷ The Spectrum Dashboard or the licensee build-out notifications

¹⁵³ *Notice*, 26 FCC Rcd at 1527, para. 50.

¹⁵⁴ See *Telephone Subscribership in the United States*, Report, Industry Analysis and Technology Division, Wireline Competition Bureau, FCC, at 6, tbl. 1 (May 2011) (showing that the percentage of households with telephones in the United States has ranged between 94.6 and 96 percent since 2001); see also, e.g., TSTC Comments at 4–5 (asserting that the only people lacking access to fixed voice service are likely to be residents of uncertificated areas and since small incumbent LECs are not in a position to provide service data about these residents, they should not be subject to this additional data requirement); Verizon Comments at 14 (arguing that to the extent that any data are needed, they should be sought in a targeted way for small areas where there could be a problem, rather than through a broad and burdensome new reporting obligation).

¹⁵⁵ See *Connect America Fund; High-Cost Universal Service Support*, WC Docket Nos. 10-90, 05-337, Report and Order, 27 FCC Rcd 13528 (2012); Order on Reconsideration, 28 FCC Rcd 1489 (2013).

¹⁵⁶ See *supra* paras. 48–49.

¹⁵⁷ See *supra* para. 47.

do not indicate the type of service or technology deployed, are filed infrequently, and in some cases, are not a reflection of networks that are being used to offer service. The Commission currently licenses a dataset from a commercial source, Mosaik, for data on mobile voice network deployment.¹⁵⁸ Mosaik provides coverage boundary maps for every facilities-based mobile wireless provider and each mobile network technology a provider has deployed, including those networks used to provide mobile voice service.¹⁵⁹ However, Mosaik reports advertised coverage as reported to it by many mobile wireless operators, each of which may use a different definition of or standard for determining coverage.¹⁶⁰ Therefore, the data are not consistent across geographic areas and service providers.¹⁶¹ In addition, the Mosaik data do not capture any information about the spectrum bands that operators use for mobile network deployment. Hence, we conclude that the Mosaik data are not sufficient for monitoring mobile voice network deployment and the mobile voice technology transition at this time, and that it is now necessary to collect mobile voice deployment data through Form 477.¹⁶²

55. Accordingly, we will require providers of mobile wireless voice service to end users to submit digital representations, with the associated data discussed above, depicting their mobile voice network coverage areas. These data, in conjunction with similar data on mobile broadband deployment discussed above, will enable the Commission to analyze the extent of deployment in different spectrum bands. It also will help the Commission project market trends and adjust its spectrum and competition policies. We also find that collection of mobile voice deployment data will assist in the Commission's efforts in the areas of emergency response and disaster relief by identifying the providers that typically serve an affected area.¹⁶³

B. Subscription Data

56. Subscription information enables the Commission to fulfill its statutory and regulatory duties. For the past thirteen years, the collection of subscription data via Form 477 has served as the Commission's principal tool for monitoring telephone and broadband subscriptions and competition.¹⁶⁴ Form 477 subscription data also enable the Commission to evaluate barriers to adoption, administer and reform the universal service program, monitor the PSTN-to-IP conversion by providing insight into how many customers rely on each type of network technology in each area, and better assess which services are purchased independently or in combination with other services. These data also support the Commission's efforts to ensure public safety by providing a measure of what networks and providers customers rely on in each area.

¹⁵⁸ *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions with Respect to Mobile Wireless, Including Commercial Mobile Services*, WT Docket No. 09-66, Fourteenth Report, 23 FCC Rcd 11407, 11413, para. 4 (2010).

¹⁵⁹ *Id.* at 11442, n.88.

¹⁶⁰ *See Sixteenth CMRS Competition Report*, 28 FCC Rcd at 3704, para. 2, n.5.

¹⁶¹ *See id.*

¹⁶² *See, e.g.*, CTIA Comments at 6–7, 8–9; Verizon Comments at 14–15.

¹⁶³ *See, e.g.*, MDTC Comments at 2; *Notice*, 26 FCC Rcd at 1519, para. 27 (seeking comment on whether mobile service deployment data would allow the Commission to identify areas where consumers lack access to 911 service, such as rural highways or remote worksites).

¹⁶⁴ As explained above, the Form 477 subscription data has also been used by the Commission to assess broadband deployment and adoption pursuant to its section 706 obligations. *See, e.g.*, *Sixth Broadband Deployment Report*, 25 FCC Rcd at 9568, para. 19; *2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8024, 8037–38, paras. 28, 58; *2012 Eighth Broadband Progress Report*, 27 FCC Rcd at 10386, para. 94.

57. Commenters generally support the continued collection of subscription information for voice and broadband services.¹⁶⁵ Indeed, many commenters acknowledge the importance of collecting subscribership data because, for example, “it provides valuable insight for both competition monitoring and public safety purposes, especially because it indicates the degree to which subscribers are reliant upon particular networks for services and E-911 delivery.”¹⁶⁶ Because subscription data are necessary to allow the Commission to fulfill its statutory purposes, we continue to collect broadband and voice subscription data. For the reasons set forth below, we revise the subscription data speeds to better reflect current market offerings and improve the Commission’s ability to assess broadband deployment and adoption. We also will now collect fixed voice and interconnected VoIP subscription data by census tract.

58. We eliminate questions and requirements on the current Form 477 that require certain broadband providers to report information about the availability of broadband service, as opposed to information about actual subscribership to broadband service. These questions are no longer necessary in light of the new Form 477 collection of broadband deployment data, discussed above. Specifically, we will eliminate Part I.B of the current form, which requires, by state: (1) each incumbent LEC with any DSL connections in service to report its best estimate of the percentage of residential end user premises in its service area to which its DSL connections could be provided using installed distribution facilities, (2) each cable system with any cable modem connections in service to report its best estimate of the percentage of residential end user premises in its service area to which its cable modem connections could be provided using installed distribution facilities, and (3) each network operator serving any terrestrial mobile wireless broadband subscribers to report the total number of subscribers (*i.e.*, including broadband, broadband plus voice, and voice-only subscribers) whose mobile device is capable of sending or receiving data at information transfer rates exceeding 200 kbps in at least one direction. In addition, we eliminate the requirement that fixed broadband providers submit data for every census tract within their “defined service territory” regardless of the number of subscribers in the tract. By eliminating these questions, we protect against duplication in our collection and reduce the burden on filers by narrowly tailoring our collection of data to those most useful to the Commission.

59. In addition, we eliminate the requirement that broadband providers submit state-level data on the percentage of their connections that are billed to end users and the percentage that are equipped over their own facilities. The Commission typically does not rely on these metrics at this level for competitive analysis, nor has it reported them in its semiannual *Internet Access Services* reports. Eliminating them would greatly simplify the revised Form 477 and its data collection interface, and would reduce burden for filers.

60. We also modify our current data collection in several ways to eliminate unnecessary information and produce data better suited to competitive analysis. We remove the requirement that providers of local exchange telephone service report the number of lines provided to unaffiliated communications carriers as UNE-Platform (UNE-P). We also eliminate reporting of the percentage of end-user lines provided over UNE-P.¹⁶⁷ In addition, providers of interconnected VoIP service will no

¹⁶⁵ See, e.g., MDTC Comments at 7–8; California PUC Comments at 11–12; AT&T Comments at 10; CWA Comments at 2 (urging the Commission to maintain and strengthen its current voice and broadband reporting rules); CTIA Comments at 19 (“The current Form 477 and other sources provide the Commission with ample data about wireless voice and data connections.”); Free Press at 9–10; Hughes Comments at 6; JSI Comments at 10; NCTA Comments at 13; USTelecom Comments at 5; Verizon Comments at 20–22.

¹⁶⁶ See MDTC Comments at 8; see also California PUC Comments at 11 (“The CPUC supports the continued collection of voice subscription data—from both wireline and wireless service providers, as well as from VoIP service providers. Such information is necessary to meet the [Commission’s] goals . . .”).

¹⁶⁷ UNE-P was the combination of incumbent LEC loop, switching, and transport unbundled network elements. The Commission directed competitive local exchange carriers to migrate their retail customers served by UNE-P to an alternative arrangement within 12 months of the effective date of the *Triennial Review Remand Order*, that is, by March 11, 2006. See 47 C.F.R. § 51.319(d)(2)(ii).

longer be required to report the number of companies purchasing their VoIP components or service for resale. The Commission typically does not rely on this metric at this level for competitive analysis. We also simplify the categories of information interconnected VoIP providers must provide. Currently, the Form requires filers to report the percentage of VoIP subscriptions with nomadic functionality. We find the burdens of this reporting distinction do not outweigh the benefits and so eliminate the nomadic category.¹⁶⁸ Finally, we will require local exchange telephone service providers to report, by state, how many of their access lines are bundled with broadband. This information about bundling can be evidence of consumers' willingness to switch voice service providers, and hence improves our competitive analysis.¹⁶⁹

1. Speed Data

61. The *Notice* sought comment on whether the Commission should reduce the number of speed tiers that broadband providers report, and whether to adopt the same speed tiers for subscription and deployment.¹⁷⁰ We currently collect subscribership data for eight tiers of advertised download speeds and nine tiers of advertised upload speeds, leading to 72 possible combinations.¹⁷¹

62. In order to conform our collection of broadband subscription data to the approach we take for broadband deployment data, we eliminate the use of speed tiers for broadband subscription data. Providers will no longer organize broadband subscription data into predetermined tiers. Instead, filers will be required to provide the number of broadband connections by the advertised speeds associated with each product subscribed to in the relevant geographic area. Fixed providers will report connections by the maximum advertised upload and download speeds in each census tract, while mobile providers will report connections by minimum advertised upload and download speeds in each state.¹⁷² These changes to how we collect speed data will permit the Commission to conduct a consistent analysis of subscription and deployment data and, because they will no longer be required to categorize the number of connections into our speed tiers, will reduce burdens on filers. Despite some commenter assertions to the contrary,¹⁷³ we conclude that on balance, there are advantages to having a consistent collection of deployment and subscription speed data. For example, a consistent collection will make the Commission's analysis of broadband availability simpler and more reliable. Moreover, over the long term, unifying the collection of speed data for deployment and subscription will minimize providers' burdens.¹⁷⁴

63. For the reasons stated above in the section addressing deployment data, we find that it is not appropriate or feasible to collect actual speed information from broadband providers via Form 477 at

¹⁶⁸ We will continue to collect information about over-the-top interconnected VoIP services.

¹⁶⁹ Interconnected VoIP providers currently submit information about bundled services, so this modification will standardize our data.

¹⁷⁰ *Notice*, 26 FCC Rcd at 1538, para. 88.

¹⁷¹ Current breakpoints for reporting speed are at 200 kbps, 768 kbps, 1.5 Mbps, 3 Mbps, 6 Mbps, 10 Mbps, 25 Mbps, and 100 Mbps. See *2008 Broadband Data Gathering Order and Further Notice*, 23 FCC Rcd at 9700-01, para. 20.

¹⁷² See *supra* paras. 36-37, 42-43.

¹⁷³ See NASUCA/NJ Rate Counsel Reply at 13; Free Press Comments at 9 (both asserting that the Commission should not disrupt the current speed tiers because it will disrupt the continuity of the historical data sets); cf. Sprint Comments at 7 (asserting that the current speed tiers are sufficient, although the Commission could add two breakpoints at 50 Mbps and 1 Gbps to conform to the NTIA breakpoints).

¹⁷⁴ JSI Comments at 11 (commenting that the speed ranges chosen for reporting subscription should be the same as those tracked for deployment); NCTA Comments at 13 (commenting that a system with different speed tiers for different categories of data would increase the burden for reporting entities while dramatically reducing the potential benefit of such data).

this time.¹⁷⁵ Accordingly, providers will report subscription speed tier information based on advertised speed.

2. Geographic Area

a. Fixed Voice and Interconnected VoIP

64. Form 477 currently collects fixed voice and interconnected VoIP subscription data at the state level and requires providers of these services to submit a list, by state, of the five-digit ZIP codes in which they provide service to end-user customers.¹⁷⁶ For the reasons set forth below, we will now collect the number of total and residential fixed voice and interconnected VoIP subscriptions by census tract, much like we currently do for fixed broadband subscription data.¹⁷⁷ We will no longer require providers of these services to submit the list of ZIP codes in which they provide service to end-user customers.

65. Collecting fixed voice and interconnected VoIP subscription data by census tract will improve the Commission's ability to measure and conduct analyses of retail voice competition.¹⁷⁸ We currently collect fixed broadband subscription data by census tract, and consumers often purchase fixed broadband and voice services together. Collecting fixed voice and interconnected VoIP subscription data at the same geographic level as fixed broadband data will allow us to calculate retail market shares for voice services by census tract in most census tracts, and will give us a better understanding of competition in the remainder. The state-level fixed voice and interconnected VoIP subscription data currently collected on 477 are insufficiently granular to provide insight into competition, and, for example, does not enable calculation of retail market shares—even at the state level because providers' footprints do not cover entire states.

66. Collecting fixed voice and interconnected VoIP subscription data at a more granular geographic level will permit the Commission to analyze subscription patterns for particular populations that are identifiable at the census tract, such as consumers residing in rural areas. Collecting fixed voice and interconnected VoIP subscription data by census tract will also help the Commission analyze fixed voice adoption in rural, insular, and high-cost areas of the country with greater refinement than at the state level, in accordance with the Commission's universal service policies to ensure that "[c]onsumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas, . . . have access to telecommunications and information services . . . that are reasonably comparable to those services provided in urban areas."¹⁷⁹ Further, collecting data for these services by census tract will provide more insight into incumbent local exchange carrier (ILEC) access line loss trends. ILECs frequently point to their overall line losses as justification for regulatory relief.¹⁸⁰ We currently lack data

¹⁷⁵ See *supra* paras. 39–41.

¹⁷⁶ As noted above, for purposes of Form 477, satellite providers of voice services are considered fixed voice service providers.

¹⁷⁷ In 2008, the Commission determined that all wired, terrestrial fixed wireless, and satellite broadband service providers must report the numbers of subscribers by census tract. *2008 Broadband Data Gathering Order and Further Notice*, 23 FCC Rcd at 9696–98, paras. 12–14.

¹⁷⁸ See, e.g., JSI Comments at 6–7, and 10 (recommending that the Commission track deployment data by census block, and subscribership data by census tract); MDTC Comments at 2–3 & 8 (recommending that the Commission collect deployment data at the address level, and subscription data by census tract); AT&T Comments at 10–11 (recommending that the Commission collect voice subscribership by census tract with supplemental census block data).

¹⁷⁹ 47 U.S.C. § 254(b)(3).

¹⁸⁰ See, e.g., *Petitions of Verizon Telephone Companies for Forbearance Pursuant to 47 U.S.C. § 160 in the Boston, New York, Philadelphia, Pittsburgh, Providence, and Virginia Beach Metropolitan Statistical Areas*, WC Docket No. 06-172, Memorandum Opinion and Order, 22 FCC Rcd 21293, 21310-11, para. 32 (2007) (*Verizon 6 MSA Forbearance Order*) (rejecting “Verizon’s attempt to demonstrate that a particular MSA is competitive by (continued....)”).

showing the geographic distribution of these line losses, and whether customers leaving ILECs are going to cable or cutting the cord.

67. We recognize that some fixed voice and interconnected VoIP service providers may not be accustomed to reporting subscription data by census tract and may not currently have the internal capability to associate subscriber addresses with census tracts.¹⁸¹ However, providers that offer both fixed broadband and fixed voice services already report fixed broadband subscription data to the Commission by census tract, and those who also participate in NTIA's SBI program also report fixed broadband deployment data by census block. Accordingly, many fixed voice and interconnected VoIP service providers already have experience using census data. The burden associated with requiring these providers to file fixed voice and interconnected VoIP subscription data by census tract will likely be small because such providers will be able to leverage existing processes for voice subscriptions. To the extent that filers do not have prior experience using census data, we believe that collecting subscription data for fixed voice and interconnected VoIP by census tract will improve the quality of the data we receive to such a degree that the benefits outweigh any additional burden on providers.¹⁸² As the Commission has explained, census tracts "are more stable and static" than ZIP codes, "correspond more consistently to actual locations, are less likely to reveal individual identifiable information about consumers, and can be correlated with valuable demographic data (including race, income, and education)."¹⁸³

68. Some commenters assert that the Commission should collect both subscription and deployment data at the same geographic area level.¹⁸⁴ Although we recognize that there may be benefits to collecting deployment and subscription data at the same geographic level, we decline to collect subscription data at a level more granular than the census tract at this time. As we have discussed, collecting fixed voice, interconnected VoIP, and broadband subscription data by census tract provides

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calculating percentage reductions in retail lines" because "[t]here are many possible reasons for such decreases unrelated to the existence of last-mile facilities-based competition"), *remanded, Verizon Tel. Cos. v. FCC*, 570 F.3d 294 (D.C. Cir. 2009), *petition withdrawn*, Letter from Kathleen Grillo, Senior Vice President, Federal Regulatory Affairs, Verizon, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 06-172 (filed Aug. 23, 2010), *proceeding terminated, Verizon 6 MSA Forbearance Petitions Withdrawn; Proceeding Terminated*, WC Docket No. 07-97, Public Notice, 25 FCC Rcd 12632 (Wireline Comp. Bur. 2010); *see also Verizon 6 MSA Forbearance Order*, 22 FCC Rcd at 21308, para. 27 n.92 (explaining the Commission was unable to calculate market shares in the New York MSA because the incumbent cable operator in that MSA had not filed complete and corrected data in the proceeding); AT&T Petition to Launch a Proceeding Concerning TDM-to-IP Transition, GN Docket No. 12-353, at 4-5 (Nov. 7, 2012) (requesting relief from certain requirements and arguing that incumbent LECs have operated at a competitive disadvantage in areas where there are providing traditional TDM-based services, as shown by line losses to wireless alternatives); Petition of USTelecom for Forbearance Pursuant to 47 U.S.C. § 160(c) from Enforcement of Certain Legacy Telecommunications Regulations, WC Docket No. 12-61, at ii, 4-5, Attach. B (filed Feb. 16, 2012).

¹⁸¹ See TSTC Comments at 7-8 (arguing that if the Commission requires subscription data by census block, the small companies will have to incur the considerable expense of determining census block information on an individual address-by-address basis, plus additional expenses to update billing systems); OPASTCO *et al.* Comments at 5 (urging the Commission to consider options to report by study area or wire center for small and rural LECs); OPASTCO *et al.* Comments at 4 (explaining that detailed new reporting requirements could prove difficult for small providers that manually maintain physical records, instead of using sophisticated computerized systems).

¹⁸² Cf. *2008 Data Gathering Order*, 23 FCC Rcd at 9695-97, paras. 10-12 (describing the superiority of census tracts to ZIP codes).

¹⁸³ *Id.* at 9696-97, para. 12.

¹⁸⁴ See, e.g., Level 3 Reply at 3 (urging the Commission to adopt consistent geographic reporting formats for all data); GVNW Comments at 5 (asserting that "any new data collection efforts by the FCC should be coordinated").

substantial benefits without unduly burdening filing entities.¹⁸⁵ At the same time, we believe that more granular subscription data would be preferable, if the burden on filers were not significantly increased. If there were no or minimal additional burden to file by census block than by census tract, we would favor collecting subscription and deployment data at the same geographic level.¹⁸⁶

C. Further Ways to Reduce Form 477 Filing Burdens

69. We are committed to improving the data that the Commission collects even as we continue to explore ways to make the Form 477 filing less burdensome. We therefore direct the Wireline Competition Bureau, in consultation with the Wireless Telecommunications Bureau, to explore technical improvements to the Form 477 filing mechanism that may make the process easier for filers. The Bureaus should explore, for example, whether a client-side software application that would automate for providers some of the potentially burdensome tasks of sorting, formatting, and geocoding their data might reduce the burden of filing Form 477.¹⁸⁷ The Bureaus should test any client-side software application with different filers representing different segments of the industry and obtain their feedback. If, through this process, the Bureaus identify a way to make the filing process less burdensome, we direct the Bureaus to make such software application available to assist filers in complying with the obligations set forth in this Order.

70. In addition to making current filing obligations less burdensome, technical improvements to the filing mechanism may also make it possible to collect more granular data without a significant increase in burden to filers. For example, a software solution may reduce the filing burden sufficiently to justify collecting more granular subscription data. If the development and testing process described above proves this to be the case, we may consider moving voice and broadband subscription data, for fixed and possibly mobile services, to the census block. Even if the Commission chooses not to collect mobile subscription data by census block, any technical improvements developed to collect fixed subscribership data by census block may be useful in collecting mobile subscribership at another sub-state geography (such as counties) with minimal burden. Technical improvements to the Form 477 filing process may also enable the Commission, in the future, to consider collecting additional data.

D. Company Identification and Contact Information

71. We require entities filing Form 477 to provide additional company identification and contact information. In addition to the current Form 477 requirements,¹⁸⁸ we will require filers to report the company's Universal Service Administrative Company (USAC) study area codes, USAC 499 identification numbers, and website address. We will also require that filers report the title of their

¹⁸⁵ Some commenters support this conclusion. *See, e.g.*, JSI Comments at 6–7, 10 (recommending that the Commission track deployment data by census block, and subscribership data by census tract); *cf.* AT&T Comments at 10–11 (urging the Commission to collect voice availability data by census block and to collect voice subscribership data by census tract); *see also* Free Press Comments at 3, 10–11 (calling for collecting availability data by census block, and for no changes at the present time to the subscription collection).

¹⁸⁶ *See infra* para. 70.

¹⁸⁷ A client-side application could be provided by the Commission to run on providers' computers to analyze providers' data. Such an application would allow providers to maintain the privacy of their customers' data while significantly reducing the burden of providing data to the Commission.

¹⁸⁸ Currently, each officially submitted Form 477 must include the following company identification and contact information: FCC Registration Number (FRN) and entity name associated with that FRN; a single name, such as a holding company name, that serves to identify all commonly owned or commonly controlled entities submitting Form 477 data; the name, telephone number, and email address of the person who prepared the submission (who will be the first point of contact for any follow-up questions about the submitted data); and the name, telephone number, and email address of the corporate officer, managing partner, or sole proprietor whose signature certifies the accuracy of the submitted data. We continue these requirements and also continue the current requirement to distinguish between data reported for incumbent LEC operations and data reported for other operations.

certifying official and the name, phone number, and email address of their emergency operations contact. This information will assist the Commission in fulfilling its universal service mandate, evaluating merger, forbearance, and other applications, and protecting public safety.¹⁸⁹

72. We require additional company identification information for several reasons. The Commission currently allows Form 477 filers to consolidate data for multiple operations within a state on a single submission,¹⁹⁰ and filers are permitted to determine the organizational level at which they submit their filings.¹⁹¹ As noted in the *Notice*, a parent or holding company may file on behalf of its subsidiaries or the subsidiaries may file their own Form 477.¹⁹² Accordingly, we will now require filers to report, in each 477 filing, the company's Universal Service Administrative Company (USAC) study area codes, USAC 499 identification numbers, and website address. This information enables us to aggregate, compare, and analyze, by a common provider, the various data we collect through different forms and filing requirements.

73. Some commenters assert that additional company identification information is not necessary and will not “meaningfully enhance the Commission’s general understanding of the broadband ecosystem, or its general understanding of the state of local competition.”¹⁹³ We disagree. Companies reporting data to the Commission via Form 477 often have multiple relationships with the Commission, and collection of these data would improve our understanding of the ownership and corporate affiliations of voice and broadband providers. In addition, knowledge of common ownership relationships among different operating companies in a region is essential to understanding competition, including conducting merger analyses, as well as ongoing vigilance against waste, fraud, and abuse of universal service funding. The current reporting requirements do not provide a sufficiently clear picture of the interrelationships that may exist among various providers and of the markets for which data are reported.

74. We recognize that the Commission currently collects some company identification information in other contexts.¹⁹⁴ Although these collections do not duplicate the information collection we adopt in this Order—they apply to small subsets of the universe of Form 477 filers and do not request the same level of detail—we nonetheless take precautions to ensure that no entity is burdened with duplicative filings. Accordingly, we direct the Wireline Competition Bureau, in consultation with the Wireless Telecommunications Bureau, to identify any circumstances in which the collection of company

¹⁸⁹ See *supra* para. 14. In the *Notice*, the Commission specifically inquired whether ownership and contact information are needed to: (1) better facilitate the Commission’s purposes of reducing waste, fraud, and abuse and increasing accountability in our universal service programs by simplifying the process of determining the total amount of public support received by each recipient regardless of corporate structure; (2) ensure public safety by providing a means for Commission staff to contact network operations centers rapidly in the event of an emergency; and (3) monitor telephone and broadband competition by revealing whether service providers with overlapping service footprints are in fact under common ownership or control. *Notice*, 26 FCC Rcd at 1541, paras. 100–104.

¹⁹⁰ *FCC Form 477 Instructions* at 4, <http://transition.fcc.gov/Forms/Form477/477inst.pdf>.

¹⁹¹ *Id.*

¹⁹² *Notice*, 26 FCC Rcd at 1541, para. 101; see also *FCC Form 477 Instructions* at 4, <http://transition.fcc.gov/Forms/Form477/477inst.pdf>.

¹⁹³ See Verizon Comments at 29; AT&T Comments at 49–50 (both asserting that Form 477 already requires providers to include their FRN and to “identify all commonly owned or commonly controlled entities,” and commenting that the Commission should get wireless contact information from the Form 602); Hughes Comments at 8 (commenting that current information is adequate and Form 602 already exists); CTIA Comments at 24; see also Qwest Comments at 17; NCTA Comments at 15.

¹⁹⁴ For example, the Wireless Telecommunications Bureau collects information from mobile service providers, via Form 602, on the real party of interest whenever there is a change in ownership or when an application for change is filed. In addition, the Commission requires certain eligible telecommunications carriers to submit ownership information. 47 C.F.R. § 54.313.

identification information on Form 477 may duplicate another Commission collection, and to exempt filers from the latter in those instances.

75. We will also require that filers report the name, phone number, and email address of their emergency operations contact. The information currently collected by Form 477 is not sufficient for use in promptly contacting providers' network operating centers during emergencies. Some commenters support the collection of additional emergency contact information. For example, Qwest states that this information should be collected, since "[e]mergency contact information could be added to Form 477 without placing any material burden on the service providers."¹⁹⁵ However, other commenters argue that Form 477 is not the appropriate vehicle for the Commission to collect this contact information.¹⁹⁶

76. The Commission needs this emergency operations contact information to fulfill its statutory public safety mandates. The Commission must be able to directly contact individuals who can provide information on network status during natural disasters or other emergencies.¹⁹⁷ As a mandatory, recurring filing by providers of telephone and broadband service, we find that Form 477 will be a particularly effective vehicle for collecting emergency contact data that are comprehensive and current, with a relatively small burden on filers. The Commission currently has no structured, recurring, mandatory collection of contact information in place specifically for use in emergencies affecting telephone and/or broadband networks. The Commission's Disaster Information Reporting System (DIRS) does collect contact information, but only on a voluntary basis for use during large-scale disasters. It is important for the Commission to have contact information from all providers that file Form 477, including those providers that do not choose to participate in DIRS, and that this information is updated consistently.¹⁹⁸

77. Finally, filers of Form 477 will be required to report the name, title, and contact information of their certifying official. This essential information provides assurance and the ability to confirm if needed that the certifying official has the authority to certify that the data submitted is accurate and truthful.

E. Disclosure of Data Collected on Form 477

78. NTIA's SBI deployment data are available to the public and have proved to be a valuable resource to academic researchers and federal and state government agencies. While we make no changes to our current treatment of subscription data, we expect that increased public access to disaggregated

¹⁹⁵ See Qwest Comments at 17.

¹⁹⁶ See Verizon Comments at 28–29 (“There is no reason to conclude that Form 477 would be the most efficient or effective means for serving [waste, fraud and abuse, USF, and public safety] interests . . . [and there is no need to collect] additional information on spectrum licenses when it already has detailed information [from Form 602] in ULS.”); AT&T Comments at 50–51; NCTA Comments at 15 (arguing that emergency contact information may be collected but not through Form 477). AT&T argues that its emergency contact information is highly confidential and should be collected by the Commission's Public Safety and Homeland Security Bureau through appropriate and secure means. See AT&T Comments at 50–51. NCTA asserts that contact information is collected through the Disaster Information Reporting System (DIRS), and collecting similar contact information on Form 477 may be harder to update, is unnecessary, and may lead to confusion or delay in an emergency situation. See NCTA Comments at 15; see also Verizon Comments at 28–29 (arguing that Form 477 will not be “more useful than existing sources such as the Disaster Information Reporting Center”).

¹⁹⁷ The Communications Act states that the Commission was created to ensure the availability of “wire and radio communications service with adequate facilities at reasonable charges” for the purpose of “promoting safety of life and property through use of wire and radio communications.” 47 U.S.C. § 151. The Commission also has a key role in guaranteeing that Americans have access to emergency service via 911.

¹⁹⁸ We address the confidentiality of these data in subpart III.E, *infra*.

subscription data could provide similar benefits.¹⁹⁹ The Commission already makes provider-specific subscription data available to state commissions that are able to maintain their confidentiality and to other federal agencies upon request, pursuant to confidentiality conditions.²⁰⁰ We believe that greater access to the subscription data might be feasible, and beneficial, without compromising competitively sensitive information. Accordingly, we delegate authority to the Wireline Competition Bureau, in consultation with the Wireless Telecommunications Bureau, to explore ways to allow greater public access to Form 477 subscription data, and to increase access to such data if the Bureaus determine, after seeking public comment, that this can be accomplished in a manner that addresses concerns about the competitive sensitivity of the data and precludes public disclosure of any confidential information.²⁰¹

79. *Subscription Data.* In the *Notice*, the Commission sought comment on how best to provide stakeholders with useful data while protecting filers' legitimate confidentiality interests.²⁰² Specifically, the Commission asked whether it should retain the simple check-box on Form 477 that filers can use to request confidential treatment for data submitted on that form, or whether there are classes of information that should always be considered public.²⁰³ Based on the record before us, we retain our existing procedures with respect to subscription data.²⁰⁴ We thus will continue to allow filers to request confidential treatment of their reported subscription data by checking a box on Form 477.²⁰⁵ At the same time, we recognize that there may be benefits to increasing public access to Form 477 subscription data,

¹⁹⁹ See *supra* para. 18 and *infra* paras. 79–80. In this Order, we revise rule 1.7001 based on revisions the Commission adopted in a 2010 order. See *Providing Eligible Entities Access to Aggregate Form 477 Data*, WC Docket No. 07-38, Order, 25 FCC Rcd 5059 (2010).

²⁰⁰ See 47 C.F.R. §§ 1.7001(d), 0.442.

²⁰¹ The Commission has recognized the potential sensitivity of some of the data collected on Form 477 and has thus limited disclosure in some respects. See *2000 Data Gathering Order*, 15 FCC Rcd at 7757–62; *2004 Broadband Data Gathering Order*, 19 FCC Rcd at 22352–53.

²⁰² *Notice*, 26 FCC Rcd at 1543–44, paras. 108–109.

²⁰³ *Id.* The first page of Form 477 includes a check box that allows providers to request nondisclosure of all or portions of their submitted data without filing at this point in the process the detailed confidentiality justification required by section 0.459 of our rules. If the Commission receives a request for, or proposes disclosure of, the information contained in Form 477, the provider will be notified and required to make the full showing under section 0.459 of our rules. As the Commission noted in the *2000 Data Gathering Order*, “[g]iven the unique nature of this data collection, these streamlined procedures for requesting non-disclosure should greatly improve the ability of smaller providers and providers that are less familiar with the Commission’s rules to request confidential treatment of their data. We expect that this will lead to a greater level of compliance with this information collection and will give providers confidence that protectable data will not be published in our regular reports.” *2000 Data Gathering Order*, 15 FCC Rcd at 7759, para. 90.

²⁰⁴ See AT&T Comments at 19, 50–53; Qwest Comments at 18; USTelecom Comments at 21–22; ITTA Comments at 3 (all arguing that the Commission should retain the “checkbox” for requesting confidential treatment and maintain the existing limits on disclosure of confidential information to third parties (*e.g.*, researchers)); see also CTIA Comments at 26; OPASTCO *et al.* Comments at 8–9; NCTA Comments at 16 (all arguing that the Commission should only release data in aggregated form).

²⁰⁵ Upon receipt of a request for inspection of information contained in a submitted Form 477, the Commission will notify the provider, and the provider will be required to make the full showing under our rules as to why confidentiality is warranted. See 47 C.F.R. § 0.459(a)(4), (b); see also *Local Competition and Broadband Reporting*, CC Docket No. 99-301, Report and Order, 15 FCC Rcd 7717, 7759, para. 90 (2000) (explaining that if the Commission receives a request for, or proposes disclosure of, the information contained in Form 477, the provider will be notified and required to make a full showing under the Commission’s rules).

and some commenters argue that the public should have access to this information.²⁰⁶ For now, we find that our current approach appropriately balances the filers' disclosure concerns with the public need for access to this information.²⁰⁷

80. While we do not expand public access to Form 477 subscription data at this time, we delegate authority to the Wireline Competition Bureau, in consultation with the Wireless Telecommunications Bureau, to explore ways to allow greater public access to Form 477 subscription data, and to increase public access to such data if this can be accomplished in a manner that addresses concerns about the competitive sensitivity of the data. In particular, in the *Notice*, the Commission asked whether the Commission should allow researchers to review disaggregated Form 477 data, consistent with the recommendations of the National Broadband Plan.²⁰⁸ We direct the Bureaus to develop a plan to enable such access. The Bureaus should propose a definition of "researcher," identify reasonable terms and conditions of access, and define a standard to ensure that sensitive data are not revealed through disclosure by such researchers. The *Notice* also sought comment on whether "the passage of time diminish[es] the commercial sensitivity of certain types of data."²⁰⁹ We direct the Bureaus to develop a process or standard under which the Commission could make disaggregated Form 477 subscription data available to the public after the passage of a certain period of time (three years, for example), and under what terms or conditions, if any, the data should be disclosed. For example, the Bureau should consider whether historical data should be available only pursuant to protective order, or whether other restrictions on use or publication would be appropriate. If the Bureaus identify ways to increase public access to subscription data while addressing concerns about the competitive sensitivity of the data, we direct the Bureaus to increase public access accordingly.

81. *Deployment Data.* We are collecting deployment data for the first time and thus must make a determination regarding the confidential treatment of such data. Some commenters argue that this information should be available to the general public.²¹⁰ Other commenters make general arguments that all data collected by Form 477 should be given confidential treatment.²¹¹ We believe that deployment data should be made public to at least the same extent as NTIA has been making them public via the

²⁰⁶ Free Press Comments at 12 (commenting that the Commission should follow the National Broadband Plan's recommendation to allow outside researchers to access the 477 data); NJ Rate Counsel Comments at ii, 12 (asserting that the Commission should limit the use of proprietary treatment whenever possible).

²⁰⁷ See *2000 Data Gathering Order*, 15 FCC Rcd at 7759, para. 89 ("[W]e agree with those commenters who suggest that we can aggregate much of the data [for which confidentiality is sought] – for example, by carrier class and to the state level – so that it does not identify the individual provider in our regularly published reports."). The Industry Analysis and Technology Division of the Wireline Competition Bureau regularly publishes an analysis of the Form 477 data. See, e.g., *May 2013 Internet Access Services Report*.

²⁰⁸ *Notice*, 26 FCC Rcd at 1544, para. 109; *National Broadband Plan* at 43–44; see also *Comment Sought on Free Press Request to Review Form 477 Data and Request for Protective Order*, WC Docket No. 10-75, Public Notice, 25 FCC Rcd 2704 (2010) (seeking comment on Free Press's request to review Form 477 data); News Release, *FCC Launches Data Innovation Initiative* (June 29, 2010), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-299269A1.pdf ("Smart policies depend on quality data, and public data should be accessible to the public in meaningful ways using modern digital tools." (quoting Chairman Genachowski)).

²⁰⁹ *Notice*, 26 FCC Rcd at 1544, para. 109.

²¹⁰ See *People of the State of Illinois Sept. 2, 2008 Reply*, WC Docket No. 07-38, at 12 ("[G]ranular data must be collected on a federal level, and shared with the states, their designees, and with the public if states are going to produce accurate and comprehensive mapping and analysis."); see also NJ Rate Counsel Comments at ii, 12 (arguing that carriers should be required to demonstrate that proprietary treatment is appropriate and that the Commission should limit the use of proprietary treatment whenever possible).

²¹¹ See *CenturyLink/Qwest Comments* at 18 (asserting that the Commission should retain the current "check box" on Form 477 that allows service providers to request confidential treatment for all data submitted on the form).

National Broadband Map. Unlike subscription data, which may be sensitive vis-à-vis competitors and of relatively low value to the general public, deployment data are very useful to the public, particularly to potential customers that wish to understand and compare their service options. Indeed, many providers make such data available to the public on their web sites.

82. We find that dissemination of deployment data promotes a more informed, efficient market. By allowing public release of as much of the information as possible, associations, scholars, and others will be able to use the information in their independent analyses of Commission policies, thereby aiding the Commission in crafting regulations that address specific market problems and eliminating those regulations that have outlived their usefulness. Finally, making these data available to the public provides consumers, states, and experts the opportunity to review the data to ensure the accuracy of the information. However, we note that mobile deployment data will include certain specific spectrum and speed parameters that may be used by providers for internal network planning purposes. Filers may request confidential treatment of those specific elements of their deployment data on Form 477.²¹²

83. All other deployment data will be treated as public data. While filers are not precluded from seeking confidential treatment pursuant to the Commission's rules for the deployment data they file,²¹³ the streamlined check-box option will not apply to the deployment data collected on Form 477. Thus, consistent with our rules, filers seeking confidential treatment of deployment data must submit a request that the data be treated as confidential with the submission of their Form 477 filing, along with their reasons for withholding the information from the public.²¹⁴

84. *Company Identification Information.* Some commenters argue that all data collected by Form 477 should be given confidential treatment.²¹⁵ In this instance, the type of company identification information collected on Form 477 is not competitively sensitive information of the type that the Commission has in the past treated as confidential.²¹⁶ Accordingly, we will not limit disclosure of company identification information by allowing filers to check a box on Form 477 requesting confidential treatment of that information. While filers are not precluded from seeking confidential treatment of

²¹² We plan, however, to make the mobile coverage areas by technology and by an aggregated range of speeds available to the public.

²¹³ See, e.g., 47 C.F.R. § 0.459.

²¹⁴ See *id.*

²¹⁵ See, e.g., CenturyLink/Qwest Comments at 18; ITTA Comments at 3 (both asserting that the Commission should retain the current "check box" on Form 477 that allows service providers to request confidential treatment for all data submitted on the form); AT&T Comments at 53 (urging the Commission to maintain its existing limits on the disclosure of confidential 477 information to third parties).

²¹⁶ See, e.g., *Johan Karlsen on Request for Inspection of Records; Rally Capital, LLC on Request for Confidential Treatment*, FOIA Control No. 2008-465, Memorandum Opinion and Order, 24 FCC Rcd 12299, 12303, para. 13 (2009) (declining to afford confidential treatment to ownership information because that information was publicly identified in financial reports filed with the Securities and Exchange Commission and other websites, and to the extent information is in the public domain, the information is not confidential); *Applications Filed by Frontier Communications Corporation and Verizon Communications Inc. for Assignment or Transfer of Control*, WC Docket No. 09-95, Memorandum Opinion and Order, 25 FCC Rcd 5972, 5974-76, paras. 4-7 (2010) (describing the corporate structures of Verizon and Frontier); *Domestic Section 214 Application Filed for the Transfer of Control of Community Telephone Company, Inc. to Hiliary Communications, LLC*, WC Docket No. 10-151, Public Notice, 25 FCC Rcd 10929 (2010) (describing the structural ownership of two LECs); *Applications of Cellco Partnership D/B/A Verizon Wireless and AT&T Inc. For Consent To Assign or Transfer Control of Licenses and Authorizations and Request for Declaratory Ruling on Foreign Ownership*, WT Docket No. 09-121, File Nos. 0003888722, et al., ITC-ASG-20090630-00309, File No. ISP-PDR-20090630-00004, Memorandum Opinion and Order and Declaratory Ruling, 25 FCC Rcd 10985, 10987-90, paras. 3-8 (2010) (describing the corporate structures of Cellco d/b/a Verizon Wireless and AT&T).

company identification information pursuant to the Commission's rules,²¹⁷ there will be no streamlined check-box option. Filers seeking confidential treatment of company identification information must therefore submit a request that the information be treated as confidential with the submission of their Form 477 filing, along with their reasons for withholding the information from the public.²¹⁸

85. *Emergency Contact Information.* As noted above, we will now collect the name, phone number, and email address of each Form 477 filer's emergency operations contact.²¹⁹ The Commission needs this information to promptly contact providers' network operating centers during emergencies. We agree with commenters that this information is confidential.²²⁰ Accordingly, for the reasons set forth below, we find that these emergency operations contact data are information that should not be routinely available for public inspection.²²¹ Form 477 is filed securely through an online password protected system. Providers submitting this information on Form 477 will not be required to submit a request for nondisclosure of the emergency operations contact information.²²² Requests for inspection of this information must include a persuasive showing as to the reasons for inspection of the data.²²³ When considering such requests, the Commission will weigh the policy considerations favoring nondisclosure against the reasons cited for permitting inspection in the light of the facts of the particular case.²²⁴

86. We find that emergency operations contact information is confidential and subject to Freedom of Information Act (FOIA) Exemption 4, which protects "trade secrets and commercial or financial information obtained from a person and privileged or confidential."²²⁵ In circumstances in which commercial information is required to be submitted to the government, FOIA Exemption 4 permits us to withhold such records where release would likely cause substantial harm to the competitive position of the submitting party.²²⁶ Communications providers do not make information about how to contact their network operations centers available to the public. Instead, they provide contact information to the public that will not disrupt their network operations. The release of this commercial information to the public would likely result in direct commercial and financial harm to the providers' business operations. Public disclosure of this information could present an unacceptable risk of disrupting communications providers' operations, including repair operations during communications outages or other emergencies. Network operations centers could be flooded with calls during emergencies when the staff at those centers should be focused on providing or restoring communications services. Interference with a

²¹⁷ See, e.g., 47 C.F.R. § 0.459.

²¹⁸ See *id.*

²¹⁹ See *supra* paras. 75–76.

²²⁰ See AT&T Comments at 50–51 (arguing that its emergency contact information is highly confidential and should be collected by the Commission's Public Safety and Homeland Security Bureau through appropriate and secure means).

²²¹ See 47 C.F.R. § 0.457.

²²² 47 C.F.R. § 0.459.

²²³ See 47 C.F.R. §§ 0.457, 0.461.

²²⁴ See 47 C.F.R. § 0.457. We will provide notice to relevant filers of requests to review this information pursuant to the Commission's FOIA rules. 47 C.F.R. §0.461.

²²⁵ 5 U.S.C. § 552(b)(4).

²²⁶ See *Critical Mass Energy Project v. NRC*, 975 F.2d 871, 880 (D.C. Cir. 1992) (en banc); *National Parks & Cons. Ass'n v. Morton*, 498 F.2d 765 (D.C. Cir. 1974).

communications provider's work to ensure the continued, robust operation of its communications services would clearly result in commercial harm to business operations.²²⁷

87. Under FOIA Exemption 4, we are also obliged to consider any adverse impact that disclosure might have on government programs, including the impact on the Commission's ability to implement its statutory responsibility under section 1 of the Act²²⁸ to ensure that communications services are adequate to promote "safety of life and property."²²⁹ Public disclosure of this information would likely result in increased call volume to providers' network operations centers. This could result in potential harm to public safety by interfering with communications providers' network operations and ability to provide communications service. Further, the Commission and other government agencies might be unable to contact network operations centers when needed, adversely impacting their ability to fulfill statutory and other obligations to ensure adequate communications services. Finally, access to providers' emergency operations contact information will not advance the public's interest in learning of Commission actions and communications service providers publicize contact information that does not interfere with their operations. Accordingly, we conclude that this information is sensitive data entitled to confidential treatment and should be exempt from routine public disclosure under FOIA.²³⁰

IV. LEGAL AUTHORITY

88. The *Notice* set out several sources of legal authority that support the proposals to collect additional data, stated that the Commission believed that its authority was sufficient, and sought comment on that conclusion.²³¹ To the extent that commenters questioned the Commission's authority to collect the types of data required under this Order, we have addressed those comments above.²³² Our authority to adopt this Order and the accompanying rules lies in sections 4(i), 201, 214, 218–220, 251–252, 254, 303(r), 310, 332, and 403 of the Communications Act of 1934, as amended (the Act), as well as section 706 of the Telecommunications Act of 1996.²³³ As discussed elsewhere in this Order, for example, these data are important inputs into the annual Broadband Progress Reports required by section 706.²³⁴ Deployment and subscription data are also critical for the Commission to fulfill its responsibilities under section 254, including the requirement that its universal service policies ensure that consumers in all regions "have access to telecommunications and information services, including interexchange services and advanced telecommunications and information services, that are reasonably comparable to those services provided in urban areas,"²³⁵ and is critical to measuring whether we are meeting those

²²⁷ See *New Part 4 of the Commission's Rules Concerning Disruptions to Communications*, ET Docket No. 04-35, Report and Order and Further Notice of Proposed Rulemaking, 19 FCC Rcd 16830, 16855, para. 45 (2004) (discussing application of Exemption 4 to support treatment of outage reports as confidential).

²²⁸ 47 U.S.C. § 151.

²²⁹ See, e.g., *Critical Mass*, 975 F.2d at 879 (recognizing third, program impairment prong of Exemption 4); *9 to 5 Org. for Women Workers v. Bd. Of Governors of the Fed. Reserve Sys.*, 721 F.2d 1, 10 (1st Cir. 1983); *Pub. Citizen Health Research Group v. NIH*, 209 F. Supp. 2d 37, 42-43 (D.D.C. 2002) (alternative holding); *Allnet Comm. Srvs. v. FCC*, 800 F. Supp. 984, 990 (D.D.C. 1992).

²³⁰ See 5 U.S.C. § 552(b)(4); 47 C.F.R. § 0.457(d).

²³¹ See *Notice*, 26 FCC Rcd at 1543, para. 107.

²³² See *supra* para. 26 (refuting commenter arguments that the BDIA constrains the Commission's ability to collect broadband deployment data).

²³³ See 47 U.S.C. §§ 154(i), 201, 214, 218–220, 251–252, 254, 303(r), 310, 332, 403, 1302(b) (2010).

²³⁴ See, e.g., *supra* para. 15.

²³⁵ 47 U.S.C. § 254(b)(3); see, e.g., *supra* paras. 14, 16.

responsibilities.²³⁶ As discussed above, we also need deployment and subscription data to further public safety goals.²³⁷ With respect to mobile broadband deployment and subscription data, we also note that such data will help the Commission to carry out its spectrum management related responsibilities under Title III of the Act.²³⁸ To the extent that the Form 477 data collection applies to interconnected VoIP providers, and to the extent that interconnected VoIP services are not telecommunications services,²³⁹ we have both direct authority,²⁴⁰ as well as ancillary authority, to require the submission of these data based on the necessity of collecting such information in order for the Commission to be able to carry out its statutory obligations with regard to carriers.²⁴¹

V. PROCEDURAL MATTERS

A. Paperwork Reduction Act Analysis

89. This document contains new and modified information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. It will be submitted to the Office of Management and Budget (OMB) for review under Section 3507(d) of the PRA. OMB, the general public, and other federal agencies are invited to comment on the new and modified information collection requirements contained in this proceeding. In addition, we note that pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. 3506(c)(4), we previously sought specific comment on how the Commission might further reduce the information collection burden for small business concerns with fewer than 25 employees.

90. In this present document, we have assessed the effects of revising Form 477 to collect additional subscription data on fixed voice and interconnected VoIP services; deployment data on voice and broadband services; and company identification and contact information, and find that these collections must be collected from all providers, including small business providers, to be effective in helping the Commission meet its statutory requirements.

B. Final Regulatory Flexibility Analysis

91. As required by the Regulatory Flexibility Act of 1980, as amended, the Commission has prepared a Final Regulatory Flexibility Analysis (FRFA) for this Report and Order, of the possible significant economic impact on a substantial number of small entities by the policies and rules addressed in this document. The FRFA is attached to this item as Appendix C. The Commission will send a copy of this item, including the FRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).

²³⁶ *See USF/ICC Transformation Order*, 26 FCC Rcd at 17679–83, paras. 46–59 (discussing performance goals and measures).

²³⁷ *See supra* paras. 4, 14, 17, 56–57, 71.

²³⁸ *See, e.g.*, 47 U.S.C. §§ 303, 309, 310, 332.

²³⁹ The Commission has not determined whether interconnected VoIP services should in all cases be classified as “telecommunications services” or “information services” under the Communications Act, and we do not decide that issue here.

²⁴⁰ For example, the Commission’s authority under section 218 of the Act is not limited to the collection of information solely from carriers. *See* 47 U.S.C. § 218 (“The Commission may obtain from [carriers subject to this chapter] and from persons directly or indirectly controlling or controlled by, or under direct or indirect common control with, such carriers full and complete information necessary to enable the Commission to perform the duties and carry out the objects for which it was created.”).

²⁴¹ *See United States v. Southwestern Cable Co.*, 392 U.S. 157, 177-78 (1968); *American Library Ass’n v. FCC*, 406 F.3d 689, 691–93 (D.C. Cir. 2005). The Commission previously has held that interconnected VoIP services constitute communication by wire or radio, and thus fall within the Commission’s general subject matter jurisdiction under section 1 of the Act, and we do not reach a different conclusion here.

C. Congressional Review Act

92. The Commission will send a copy of this Report and Order to Congress and the Government Accountability Office pursuant to the Congressional Review Act, *see* 5 U.S.C. 801(a)(1)(A).

VI. ORDERING CLAUSES

93. Accordingly, IT IS ORDERED that, pursuant to sections 4(i), 201, 214, 218-220, 251-252, 254, 303(r), 310, 332, and 403 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 201, 214, 218-220, 251-252, 254, 303(r), 310, 332, and 403, 409, 502, and 503, and section 706 of the Telecommunications Act of 1996, as amended, 47 U.S.C. 1302, this Report and Order IS ADOPTED.

94. IT IS FURTHER ORDERED that Parts 0, 1 and 43 of the Commission's rules ARE AMENDED as set forth in Appendix A.

95. IT IS FURTHER ORDERED that, pursuant to sections 1.4(b)(1) and 1.103(a) of the Commission's rules, 47 C.F.R. §§ 1.4(b)(1), 1.103(a), this Report and Order SHALL BE EFFECTIVE 30 days after publication of a summary in the Federal Register, except for the amendments to sections 1.7001, 1.7002, 43.01 and 43.11 of the Commission's rules, which will become effective upon announcement in the Federal Register of Office of Management and Budget (OMB) approval and an effective date of the rules.

96. IT IS FURTHER ORDERED that the Commission SHALL SEND a copy of this Report and Order to Congress and to the Government Accountability Office pursuant to the Congressional Review Act, *see* 5 U.S.C. § 801(a)(1)(A).

97. IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Report and Order, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX A**Final Rules**

For the reasons discussed in the preamble, the Federal Communications Commission amends 47 CFR parts 0, 1, and 43 to read as follows:

PART 0 – COMMISSION ORGANIZATION

1. The authority citation for part 0 continues to read as follows:

Authority: Sec. 5, 48 Stat. 1068, as amended, 47 U.S.C. 155, 225, unless otherwise noted.

2. Amend § 0.91 by revising paragraph (f) to read as follows:

§ 0.91 Functions of the Bureau.

* * * * *

(f) Develop and administer recordkeeping and reporting requirements for telecommunications carriers, providers of interconnected VoIP service (as that term is defined in section 9.3 of this chapter), and providers of broadband services.

* * * * *

3. Amend § 0.457 by adding paragraph (d)(1)(viii) as follows:

§ 0.457 Records not routinely available for public inspection.

* * * * *

(d)(1)(viii) Emergency contact information reported on FCC Form 477.

* * * * *

PART 1 – PRACTICE AND PROCEDURE

4. The authority citation for part 1 continues to read as follows:

Authority: 15 U.S.C. 79 et seq.; 47 U.S.C. 151, 154(i), 154(j), 155, 157, 225, 227, 303(r), and 309, Cable Landing License Act of 1921, 47 U.S.C. 35-39, and the Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. 112-96.

5. Amend §1.7001 by deleting paragraph (a)(2), redesignating paragraphs (a)(3) and (a)(4) as (a)(2) and (a)(3), and revising paragraphs (a)(2), (b), (c) and (d) to read as follows:

§ 1.7001 Scope and content of filed reports.

(a) Definitions. Terms used in this subpart have the following meanings:

(1) Facilities-based providers. Those entities that provide broadband services over their own facilities or over Unbundled Network Elements (UNEs), special access lines, and other leased lines and wireless channels that the entity obtains from a communications service provider and equips as broadband.

(2) One-way broadband lines or wireless channels. Lines or wireless channels with information carrying capability in excess of 200 kilobits per second in at least one direction, but not both.

(3) Own facilities. Lines and wireless channels the entity actually owns and facilities that it obtained the right to use from other entities as dark fiber or satellite transponder capacity.

(b) All commercial and government-controlled entities, including but not limited to common carriers and their affiliates (as defined in 47 U.S.C. 153 (1)), cable television companies, terrestrial fixed wireless providers, terrestrial mobile wireless providers, satellite providers, utilities, and others, that are facilities-based providers shall file with the Commission a completed FCC Form 477, in accordance with the Commission's rules and the instructions to the FCC Form 477.

(c) Respondents identified in paragraph (b) of this section shall include in each report a certification signed by an appropriate official of the respondent (as specified in the instructions to FCC Form 477) and shall report the title of their certifying official.

(d) Disclosure of data contained in FCC Form 477 will be addressed as follows:

(1) Emergency operations contact information contained in FCC Form 477 are information that should not be routinely available for public inspection pursuant to §0.457 of this chapter.

(2) Respondents may make requests for Commission non-disclosure of the following data contained in FCC Form 477 under §0.459 of this chapter by so indicating on Form 477 at the time that the subject data are submitted:

(i) provider-specific subscription data and

(ii) provider-specific mobile deployment data that includes specific spectrum and speed parameters that may be used by providers for internal network planning purposes.

(3) Respondents seeking confidential treatment of any other data contained in FCC Form 477 must submit a request that the data be treated as confidential with the submission of their Form 477 filing, along with their reasons for withholding the information from the public, pursuant to §0.459 of this chapter.

(4) The Commission shall make all decisions regarding non-disclosure of provider-specific information, except that the Chief of the Wireline Competition Bureau may release provider-specific information to:

(i) a state commission provided that the state commission has protections in place that would preclude disclosure of any confidential information,

(ii) “eligible entities,” as those entities are defined in the Broadband Data Improvement Act, in an aggregated format and pursuant to confidentiality conditions prescribed by the Commission, and

(iii) others, to the extent that access to such data can be accomplished in a manner that addresses concerns about the competitive sensitivity of the data and precludes public disclosure of any confidential information.

* * * * *

6. Amend 1.7002 to read as follows:

§ 1.7002 Frequency of reports.

Entities subject to the provisions of § 1.7001 shall file reports semi-annually. Reports shall be filed each year on or before March 1st (reporting data required on FCC Form 477 as of December 31 of the prior year) and September 1st (reporting data required on FCC Form 477 as of June 30 of the current year). Entities becoming subject to the provisions of § 1.7001 for the first time within a calendar year shall file data for the reporting period in which they become eligible and semi-annually thereafter.

PART 43 – REPORTS OF COMMUNICATION COMMON CARRIERS AND CERTAIN AFFILIATES

7. The authority citation for part 43 continues to read as follows:

Authority: 47 U.S.C. 154; Telecommunications Act of 1996; Pub.L. 104-104, sec. 402(b)(2)(B), (c), 110 Stat. 56 (1996) as amended unless otherwise noted. 47 U.S.C. 211, 219, 220, as amended; Cable Landing License Act of 1921, 47 U.S.C. 35-39.

8. Amend § 43.01 by revising paragraphs (a), (b), and (d) to read as follows:

§ 43.01 Applicability.

(a) The sections in this part include requirements which have been promulgated under authority of sections 211 and 219 of the Communications Act of 1934, as amended, with respect to the filing by communication common carriers and certain of their affiliates, as well as certain other providers, of periodic reports and certain other data, but do not include certain requirements relating to the filing of information with respect to specific services, accounting systems and other matters incorporated in other parts of this chapter.

(b) Except as provided in paragraphs (c) and (d) of this section, carriers and other providers becoming subject to the provisions of the several sections of this part for the first time, shall, within thirty (30) days of becoming subject, file the required data as set forth in the various sections of this part.

* * * * *

(d) Common carriers and other service providers subject to the provisions of § 43.11 shall file data semi-annually. Reports shall be filed each year on or before March 1st (reporting data required on FCC Form 477 as of December 31 of the prior year) and September 1st (reporting data required on FCC Form 477 as of June 30 of the current year). Common carriers and other providers becoming subject to the provisions

of §43.11 for the first time within a calendar year shall file data for the reporting period in which they become eligible and semi-annually thereafter.

9. Amend §43.11 to revise paragraphs (a), (b), and (c) to read as follows:

§ 43.11 Reports of local exchange competition data

(a) All common carriers and their affiliates (as defined in 47 U.S.C. 153(1)) providing telephone exchange or exchange access service (as defined in 47 U.S.C. 153(16) and (47)), commercial mobile radio service (CMRS) providers offering mobile telephony (as defined in §20.15(b)(1) of this chapter), and Interconnected Voice over IP service providers (as defined in § 9.3 of this chapter), shall file with the Commission a completed FCC Form 477, in accordance with the Commission's rules and the instructions to the FCC Form 477.

(b) Respondents identified in paragraph (a) of this section shall include in each report a certification signed by an appropriate official of the respondent (as specified in the instructions to FCC Form 477) and shall report the title of their certifying official.

(c) Disclosure of data contained in FCC Form 477 will be addressed as follows:

(1) Emergency operations contact information contained in FCC Form 477 are information that should not be routinely available for public inspection pursuant to §0.457 of this chapter.

(2) Respondents may make requests for Commission non-disclosure of the following data contained in FCC Form 477 under §0.459 of this chapter by so indicating on Form 477 at the time that the subject data are submitted:

(i) provider-specific subscription data and

(ii) provider-specific mobile deployment data that includes specific spectrum and speed parameters that may be used by providers for internal network planning purposes.

(3) Respondents seeking confidential treatment of any other data contained in FCC Form 477 must submit a request that the data be treated as confidential with the submission of their Form 477 filing, along with their reasons for withholding the information from the public, pursuant to §0.459 of this chapter.

(4) The Commission shall make all decisions regarding non-disclosure of provider-specific information, except that the Chief of the Wireline Competition Bureau may release provider-specific information to:

(i) a state commission provided that the state commission has protections in place that would preclude disclosure of any confidential information, and

(ii) "eligible entities," as those entities are defined in the Broadband Data Improvement Act, in an aggregated format and pursuant to confidentiality conditions prescribed by the Commission, and

(iii) others, to the extent that access to such data can be accomplished in a manner that addresses concerns about the competitive sensitivity of the data and precludes public disclosure of any confidential information.

* * * * *

APPENDIX B

List of Commenters

Comments in WC Docket No. 11-10

Commenter	Abbreviation
AT&T Inc.	AT&T
California Association of Competitive Telecommunications Companies	CALTEL
California Public Utilities Commission	California PUC
CenturyLink, Inc. and Qwest Communications International Inc.	CenturyLink/Qwest
Communications Workers of America	CWA
CTIA—The Wireless Association	CTIA
Daniel Kelley	Daniel Kelley
Free Press	Free Press
GVNW Consulting, Inc.	GVNW
Hughes Network Systems, LLC	Hughes
Independent Telephone and Telecommunications Alliance	ITTA
John Staurulakis, Inc.	JSI
Massachusetts Department of Telecommunications and Cable	MDTC
Michigan Public Service Commission	Michigan PSC
National Cable & Telecommunications Association	NCTA
New Jersey Division of Rate Counsel	NJ Rate Counsel
Organization for the Promotion and Advancement of Small Telecommunications Companies; National Telecommunications Cooperative Association; Western Telecommunications Alliance	OPASTCO <i>et al.</i>
Pennsylvania Public Utility Commission	Pa. PUC
Sprint Nextel Corporation	Sprint
Telogical Systems, LLC	Telogical
Texas Statewide Telephone Cooperative, Inc.	TSTC
Time Warner Cable Inc.	Time Warner
T-Mobile USA, Inc.	T-Mobile
United States Telecom Association	USTelecom
Verizon and Verizon Wireless	Verizon
ViaSat, Inc.	ViaSat
Voice on the Net Coalition	VON Coalition

Reply Comments in WC Docket No. 11-10

Reply Commenter	Abbreviation
Alliance for Telecommunications Industry Solutions	ATIS
AT&T Inc.	AT&T
Communications Workers of America	CWA
Level 3 Communications, LLC	Level 3
National Association of State Utility Consumer Advocates and the New Jersey Division of Rate Counsel	NASUCA/NJ Rate Counsel
Public Service Commission of the District of Columbia	DC PSC
SpeedNet LLC	SpeedNet
T-Mobile USA, Inc.	T-Mobile
Verizon and Verizon Wireless	Verizon

APPENDIX C

Final Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),¹ an Initial Regulatory Flexibility Analysis (IRFA) was incorporated into the *2011 Data Gathering Notice*.² The Commission sought written public comment on the proposals in the *2011 Data Gathering Notice*, including comment on the IRFA.³ The comments received are discussed below. This present Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.⁴

A. Need for, and Objectives of, the Report and Order

2. In this Report and Order (Order), the Commission modifies the FCC Form 477 data collection to streamline the collection and improve the quality of the data collected. Form 477 is the Commission's primary tool for collecting data about broadband and local telephone networks and services. The revisions to the form adopted today will expand and refine the data available to the Commission to fulfill its statutory duties.

3. For the last three years, data on broadband deployment have been collected by the National Telecommunications and Information Administration (NTIA) to populate the National Broadband Map. But NTIA's collection program is nearing its completion. NTIA's State Broadband Initiative (SBI) collection of deployment data is scheduled to expire in 2014; given the critical role such data play in meeting the goals of Congress and the Commission, it is the Commission's responsibility to ensure that no gap exists in the collection of these data. In today's Order, the Commission assumes the responsibility for collection of broadband deployment data, with some modifications to streamline and reduce the burdens on providers while making other modest improvements. With regard to subscription data, the Commission takes measures to reduce burdens while improving the quality of the data it collects. To enhance its ability to meet public safety needs and obligations, the Commission will collect emergency contact information from providers. Finally, the Commission requires filers to report certain company identification information, which will facilitate transaction reviews, as well as ongoing vigilance against waste, fraud, and abuse of universal service funding.

4. Data about broadband and voice deployment and subscription are essential to the Commission's ability to fulfill its statutory obligations and play a vital public interest role for other state, local, and federal agencies, researchers, and consumers. Data collected through Form 477 and NTIA's SBI program play an essential role in the Commission's work: the Commission uses these data to meet its statutory obligation to assess annually the state of broadband availability, update its universal service policies and monitor whether its statutory universal service goals are being achieved, and meet its public

¹ See 5 U.S.C. § 603. The RFA, see 5 U.S.C. §§ 601-12, 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 *Modernizing the FCC Form 477 Data Program; Development of Nationwide Broadband Data to Evaluate Reasonable and Timely Deployment of Advanced Services to All Americans, Improvement of Wireless Broadband Subscriber Data, and Development of Data on Interconnected Voice over Internet Protocol (VoIP) Subscriber; Service Quality, Customer Satisfaction, Infrastructure and Operating Data Gathering; Review of Wireline Competition Bureau Data Practices*, WC Docket Nos. 11-10, 07-38, 08-190, 10-132, Notice of Proposed Rulemaking, 26 FCC Rcd 1508, 1549 (2011) (*Notice*).

³ *Id.* at 1546, para. 118 & at 1549, para. 1.

⁴ See 5 U.S.C. § 604.

safety obligations. The Commission also makes the data available to states, researchers, and the public to inform their own activities and decisions regarding voice and broadband networks and services.

5. Many of these obligations flow directly from statute. Significantly, the Broadband Data Improvement Act (BDIA) requires that the Commission conduct an annual inquiry concerning the “availability of advanced telecommunications capability to all Americans.”⁵ As part of this inquiry, the Commission must “determine whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion.”⁶ If the Commission’s conclusion is negative, it must “take immediate action to accelerate deployment of such capability by removing barriers to infrastructure investment and by promoting competition in the telecommunications market.”⁷ The Commission has observed that the data collected on Form 477 to date have been imperfect for the purpose of assessing broadband deployment and availability, as subscription data are a highly imperfect proxy for network deployment.

6. Deployment and subscription data are also needed to fulfill the Commission’s universal service mandate. The Communications Act of 1934, as amended, requires the Commission to base its universal service policies on a number of principles, including 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 . . . that are reasonably comparable to those services provided in urban areas.”⁸ The Commission currently relies on SBI data for a number of universal service policies. For example, the Commission has relied on the SBI data to determine areas eligible for support in Connect America Phase I,⁹ and has stated that it will rely on SBI data for determining areas eligible for support in Connect America Phase II.¹⁰ In addition, the Commission has sought comment on using SBI data to determine areas eligible for the Remote Areas Fund.¹¹ Over time, the Commission’s reliance on the SBI data to support its universal service policies will transition to reliance on data collected on Form 477. Thus, the data collected in Form 477 are critical to measuring whether we are meeting our universal service mandate.

7. Accurate, detailed data about deployment and subscription also help further the Commission’s public safety goals. In disaster situations, for example, the Commission uses these data to identify service providers likely to be affected and alternative sources of critical communications. The collection of deployment and subscription data help the Commission monitor the performance of both legacy circuit-switched networks and broadband networks, to ensure that consumers can access emergency services as service providers transition from one technology to the other.

8. Moreover, in addition to the Commission’s use of the data, there have been tremendous public interest benefits to other federal and state agencies and the general public from the FCC’s and NTIA’s data collections. Use of the National Broadband Map application, and access to the data via download or Application Programming Interfaces, has been extensive.

⁵ 47 U.S.C. § 1302(b).

⁶ *Id.*

⁷ *Id.*

⁸ 47 U.S.C. § 254(b)(3).

⁹ *Connect America Fund*, et al., WC Docket No. 10-90 et al., Report and Order, FCC 13-73, para. 19 (rel. May 22, 2013).

¹⁰ *Connect America Fund*, et al., WC Docket No. 10-90 et al., Order, DA 13-1113, para. 5 (Wireline Comp. Bur. rel. May 16, 2013).

¹¹ *Wireline Competition Bureau Seeks Further Comment On Issues Regarding The Design Of The Remote Areas Fund*, WC Docket No. 10-90, Public Notice, 28 FCC Rcd 265, 267, paras. 5–7 (Wireline Comp. Bur. 2013).

9. As discussed below, we will now collect fixed and mobile broadband deployment data. Combining network deployment information with service availability data, as well as subscription information, will assist the Commission in a number of analyses, including the annual broadband progress report, the Annual Mobile Wireless Competition Report, the state of competition in the mobile wireless industry, and review of mergers and spectrum transactions. The mobile broadband deployment data, in conjunction with similar data on mobile voice deployment, will enable the Commission to analyze the extent of deployment in different spectrum bands, and technologies. These data will enable us to analyze deployment in different spectrum bands, and to structure our spectrum, infrastructure, and competition policies effectively and efficiently in a rapidly evolving mobile marketplace. The National Broadband Plan states that mobile broadband is poised to become a key platform for innovation in the United States over the next decade. For mobile service deployment, spectrum is an essential input as the transmission pipe. Understanding how spectrum bands and technologies have actually been deployed in different areas will greatly facilitate the formulation of sound and informed spectrum policies, including how best to make additional spectrum available for licensed, unlicensed and opportunistic uses. The mobile broadband deployment data, indicating speed, technology, and spectrum band used, will enable us to better assess the wireless marketplace to ensure that our spectrum and competition policies accommodate growing demand and evolving technologies in the provision of mobile broadband services.

10. With respect to mobile broadband, the Commission continues NTIA's SBI collection, with certain modifications to reduce burdens while improving the data to fulfill our statutory purposes and policy goals. These modifications include additional technology codes, separation of coverage areas by unique combinations of technology, spectrum and speed, and minimum, rather than maximum, advertised speed. Specifically, for each mobile broadband network technology (e.g., EV-DO, WCDMA, HSPA+, LTE, WiMAX) deployed in each frequency band (e.g., 700 MHz, Cellular, AWS, PCS, BRS/EBS), facilities-based mobile broadband providers should submit polygons representing the nationwide coverage area (including U.S. territories) of that technology. Collecting these deployment data on mobile broadband network technologies, in conjunction with data on spectrum and minimum advertised speeds, will improve the data needed to fulfill the Commission's statutory purposes and policy goals. As with fixed broadband deployment data, we direct filers to report data on advertised speeds and reduce the burden of associating these speeds with predetermined speed tiers. To reduce burdens, we also allow mobile broadband providers to submit coverage maps on a nationwide rather than state-by-state basis.

11. Subscription information enables the Commission to fulfill its statutory and regulatory duties. For the past thirteen years, the collection of subscription data via Form 477 has served as the Commission's principal tool for monitoring telephone and broadband subscriptions and competition. Form 477 subscription data also enable the Commission to evaluate barriers to adoption, administer and reform the universal service program, monitor the PSTN-to-IP conversion by providing insight into how many customers rely on each type of network technology in each area, and better assess which services are purchased independently or in combination with other services. These data also support the Commission's efforts to ensure public safety by providing a measure of what networks and providers customers rely on in each area.

12. The Commission will now collect the number of total and residential fixed voice and interconnected VoIP subscriptions by census tract, much like it currently does for fixed broadband subscription data.¹² The Commission will no longer require providers of these services to submit the list of ZIP codes in which they provide service to end-user customers.

13. Collecting fixed voice and interconnected VoIP subscription data by census tract will improve the Commission's ability to measure and conduct analyses of retail voice competition. The

¹² In 2008, the Commission determined that all wired, terrestrial fixed wireless, and satellite broadband service providers must report the numbers of subscribers by census tract. *2008 Broadband Data Gathering Order and Further Notice*, 23 FCC Rcd at 9696-98, paras. 12-14.

Commission currently collect fixed broadband subscription data by census tract, and consumers often purchase fixed broadband and voice services together. Collecting fixed voice and interconnected VoIP subscription data at the same geographic level as fixed broadband data will allow the calculation of retail market shares for voice services by census tract in most census tracts, and will give the Commission a better understanding of competition in the remainder.

14. The Commission requires additional company identification information for several reasons. The Commission currently allows Form 477 filers to consolidate data for multiple operations within a state on a single submission, and filers are permitted to determine the organizational level at which they submit their filings. A parent or holding company may file on behalf of its subsidiaries or the subsidiaries may file their own Form 477. Accordingly, the Commission will now require filers to report, in each 477 filing, the company's Universal Service Administrative Company (USAC) study area codes, USAC 499 identification numbers, and website address. This information enables the Commission to aggregate, compare, and analyze, by a common provider, the various data it collects through different forms and filing requirements.

15. The Commission will also require that filers report the name, phone number, and email address of their emergency operations contact. The information currently collected by Form 477 is not sufficient for use in promptly contacting providers' network operating centers during emergencies. Some commenters support the collection of additional emergency contact information. For example, Qwest states that this information should be collected, since "[e]mergency contact information could be added to Form 477 without placing any material burden on the service providers."¹³ However, other commenters argue that Form 477 is not the appropriate vehicle for the Commission to collect this contact information.¹⁴

16. The Commission needs this emergency operations contact information to fulfill its statutory public safety mandates. The Commission must be able to directly contact individuals who can provide information on network status during natural disasters or other emergencies.¹⁵ As a mandatory, recurring filing by providers of telephone and broadband service, Form 477 will be a particularly effective vehicle for collecting emergency contact data that are comprehensive and current, with a relatively small burden on filers. The Commission currently has no structured, recurring, mandatory collection of contact information in place specifically for use in emergencies affecting telephone and/or broadband networks. The Commission's Disaster Information Reporting System (DIRS) does collect contact information, but only on a voluntary basis for use during large-scale disasters. It is important for the Commission to have contact information from all providers that file Form 477, including those providers that do not choose to participate in DIRS, and that this information is updated consistently.

¹³ See Qwest Comments at 17.

¹⁴ See Verizon Comments at 28–29 (“There is no reason to conclude that Form 477 would be the most efficient or effective means for serving [waste, fraud and abuse, USF, and public safety] interests . . . [and there is no need to collect] additional information on spectrum licenses when it already has detailed information [from Form 602] in ULS.”); AT&T Comments at 50–51; NCTA Comments at 15 (emergency contact information may be collected but not through Form 477). AT&T argues that its emergency contact information is highly confidential and should be collected by the Commission's Public Safety and Homeland Security Bureau through appropriate and secure means. See AT&T Comments at 50–51. NCTA asserts that contact information is collected through the Disaster Information Reporting System (DIRS), and collecting similar contact information on Form 477 may be harder to update, is unnecessary, and may lead to confusion or delay in an emergency situation. See NCTA Comments at 15; see also Verizon Comments at 28–29 (arguing that Form 477 will not be “more useful than existing sources such as the Disaster Information Reporting Center”).

¹⁵ The Communications Act states that the Commission was created to ensure the availability of “wire and radio communications service with adequate facilities at reasonable charges” for the purpose of “promoting safety of life and property through use of wire and radio communications.” 47 U.S.C. § 151.

17. Finally, filers of Form 477 will be required to report the name, title, and contact information of their certifying official. This essential information provides assurance and the ability to confirm if needed that the certifying official has the authority to certify that the data submitted is accurate and truthful.

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

18. In this section, we respond to comments filed in response to the IRFA. To the extent we received comments raising general small business concerns during this proceeding, those comments are discussed throughout the Report and Order.

19. OPASTCO, NTCA, and WTA assert that the Commission should narrow its efforts and collect only that information for which it has a legitimate statutory or regulatory need.¹⁶ In addition, they comment that, to the extent that other avenues for gathering information exist, the Commission should use those avenues in order to eliminate duplicative filing requirements for service providers.¹⁷ OPASTCO *et al.* also comment that the Commission must remain mindful of the burdens new requirements could impose on small providers like rural LECs, and that specifically, detailed new reporting requirements could prove difficult for small providers that manually maintain physical plant records, instead of using sophisticated computerized systems.¹⁸

20. The Commission takes steps in the Order to protect against duplication in the Form 477 collection and reduce the burden on filers by narrowly tailoring the collection of data to those most useful to the Commission. The Commission found in the Order that the collection of deployment and subscription data was necessary to fulfill a number of the Commission's statutory and policy goals, including its statutory obligation to assess annually the state of broadband availability, update its universal service policies and monitor whether its statutory universal service goals are being achieved, and meet its public safety obligations. In addition, in the Order, the Commission directed the Wireline Competition Bureau, in consultation with the Wireless Telecommunications Bureau, to identify any circumstances in which the collection of company identification information on Form 477 may duplicate another Commission collection, and to exempt filers from the latter in those instances.

21. The Commission also considered whether data available from outside sources, including providers' websites, is sufficient to inform the Commission about the expansion of broadband networks. The Commission found, however, that reliance on third-party data is not appropriate for a primary source of deployment data.¹⁹

22. Finally, with its new collection of deployment data, the requirements in the Order are designed to reduce filing burdens and increase reliability of the data in several ways. For example, the changes to the SBI collection are designed to reduce filing burdens and increase reliability of the data. The collection will occur in a single, unified process rather than on a state-by-state basis. A single, nationwide filing (that includes both deployment and subscription data) will help eliminate potential variations among states, and reduce to one the number of entities with which a multistate provider must coordinate for its filing. In addition, the elimination of speed tiers will reduce burdens associated with categorizing data into those tiers. The data will also be more reliable because all providers must file, and must certify to the accuracy upon filing. The Commission also declined to gather fixed broadband deployment data at a level more granular than the census block, finding that the added complexity and burden are unlikely at this time to provide a significant insight into how many residences and businesses lack access to service. In short, the collection is carefully tailored to provide the Commission the data it

¹⁶ OPASTCO *et al.* Comments at 2.

¹⁷ *Id.*

¹⁸ *Id.* at 4–5.

¹⁹ See *infra* discussion Part E.

needs to fulfill its mission, while taking steps to minimize the burden on filers. As a result, the Commission expects that communications providers' overall reporting burden will decrease even though the Commission will be collecting more data.

23. Further, the Commission noted that the Wireline Competition Bureau will release a draft data specification that reflects the changes necessary to implement this Order. As they have with every previous revision of Form 477, Wireline Competition Bureau staff will work with providers to ensure that the providers have the tools they need to complete and file the form in the least burdensome manner possible. The Commission delegated authority to the Wireline Competition Bureau, in consultation with the Wireless Telecommunications Bureau, to implement any technical improvements or other clarifications to the filing mechanism and forms that will make compliance easier for filers.

24. AT&T argued that the proposed pricing collection from broadband providers would impose significant and unnecessary burdens on broadband providers in violation of the Regulatory Flexibility Act.²⁰ The Commission does not require the filing of pricing data in the Order.

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

25. 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 rules adopted herein.²¹ The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."²² In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.²³ 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 Small Business Administration (SBA).²⁴

1. Wireline Providers

26. *Incumbent Local Exchange Carriers (Incumbent LECs)*. Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent local exchange services. 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.²⁵ Census Bureau data for 2007, which now supersede data from the 2002 Census, show that there were 3,188 firms in this category that operated for the entire year. Of this total, 3,144 had employment of 999 or fewer, and 44 firms had had employment of 1000 or more. According to Commission data, 1,307 carriers reported that they were incumbent local exchange service providers.²⁶ Of these 1,307 carriers, an estimated 1,006 have

²⁰ AT&T Comments at 25–26.

²¹ 5 U.S.C. § 604(a)(3).

²² 5 U.S.C. § 601(6).

²³ 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."

²⁴ 15 U.S.C. § 632.

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

²⁶ 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*).

1,500 or fewer employees and 301 have more than 1,500 employees.²⁷ 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 Notice. Thus under this category and the associated small business size standard, the majority of these incumbent local exchange service providers can be considered small providers.²⁸

27. *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.²⁹ Census Bureau data for 2007, which now supersede data from the 2002 Census, show that there were 3,188 firms in this category that operated for the entire year. Of this total, 3,144 had employment of 999 or fewer, and 44 firms had had employment of 1,000 employees or more. Thus under this category and the associated small business size standard, the majority of these Competitive LECs, CAPs, Shared-Tenant Service Providers, and Other Local Service Providers can be considered small entities.³⁰ 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.³¹ Of these 1,442 carriers, an estimated 1,256 have 1,500 or fewer employees and 186 have more than 1,500 employees.³² 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.³³ In addition, 72 carriers have reported that they are Other Local Service Providers.³⁴ Of the 72, seventy have 1,500 or fewer employees and two have more than 1,500 employees.³⁵ 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 Notice.

28. *Interexchange Carriers.* Neither the Commission nor the SBA has developed a small business size standard specifically for providers of interexchange services. 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.³⁶ Census Bureau data for 2007, which now supersede data from the 2002 Census, show that there were 3,188 firms in this category that operated for the entire year. Of this total, 3,144 had employment of 999 or fewer, and 44 firms had had employment of 1,000 employees or more. Thus under this category and the associated small business size standard, the majority of these Interexchange carriers can be considered small entities.³⁷ According to Commission

²⁷ See *id.*

²⁸ See http://factfinder.census.gov/servlet/IBQTable?_bm=y&-fds_name=EC0700A1&-geo_id=&-_skip=600&-ds_name=EC0751SSSZ5&-_lang=en.

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

³⁰ See http://factfinder.census.gov/servlet/IBQTable?_bm=y&-fds_name=EC0700A1&-geo_id=&-_skip=600&-ds_name=EC0751SSSZ5&-_lang=en.

³¹ See *Trends in Telephone Service* at Table 5.3.

³² See *id.*

³³ See *id.*

³⁴ See *id.*

³⁵ See *id.*

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

³⁷ See http://factfinder.census.gov/servlet/IBQTable?_bm=y&-fds_name=EC0700A1&-geo_id=&-_skip=600&-ds_name=EC0751SSSZ5&-_lang=en.

data, 359 companies reported that their primary telecommunications service activity was the provision of interexchange services.³⁸ Of these 359 companies, an estimated 317 have 1,500 or fewer employees and 42 have more than 1,500 employees.³⁹ Consequently, the Commission estimates that the majority of interexchange service providers are small entities that may be affected by rules adopted pursuant to the Notice.

29. *Operator Service Providers (OSPs)*. Neither the Commission nor the SBA has developed a small business size standard specifically for operator 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.⁴⁰ Under that size standard, such a business is small if it has 1,500 or fewer employees.⁴¹ Census Bureau data for 2007, which now supersede data from the 2002 Census, show that there were 3,188 firms in this category that operated for the entire year. Of this total, 3,144 had employment of 999 or fewer, and 44 firms had had employment of 1,000 employees or more. Thus under this category and the associated small business size standard, the majority of these Interexchange carriers can be considered small entities.⁴² According to Commission data, 33 carriers have reported that they are engaged in the provision of operator services. Of these, an estimated 31 have 1,500 or fewer employees and 2 have more than 1,500 employees.⁴³ Consequently, the Commission estimates that the majority of OSPs are small entities that may be affected by our proposed action.

30. *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.⁴⁴ Census data for 2007 show that 1,523 firms provided resale services during that year. Of that number, 1,522 operated with fewer than 1000 employees and one operated with more than 1,000.⁴⁵ Thus under this category and the associated small business size standard, the majority of these local resellers can be considered small entities. According to Commission data, 213 carriers have reported that they are engaged in the provision of local resale services.⁴⁶ Of these, an estimated 211 have 1,500 or fewer employees and two have more than 1,500 employees.⁴⁷ Consequently, the Commission estimates that the majority of local resellers are small entities that may be affected by rules adopted pursuant to the Notice.

31. *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.⁴⁸ Census data for 2007 show that 1,523 firms provided resale services during that year. Of

³⁸ See *Trends in Telephone Service* at Table 5.3.

³⁹ See *id.*

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

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

⁴² See http://factfinder.census.gov/servlet/IBQTable?_bm=y&-fds_name=EC0700A1&-geo_id=&-_skip=600&-ds_name=EC0751SSSZ5&-_lang=en.

⁴³ TRENDS IN TELEPHONE SERVICE, tbl. 5.3.

⁴⁴ 13 C.F.R. § 121.201, NAICS code 517911.

⁴⁵ http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-_skip=800&-ds_name=EC0751SSSZ5&-_lang=en.

⁴⁶ See *Trends in Telephone Service* at Table 5.3.

⁴⁷ See *id.*

⁴⁸ 13 C.F.R. § 121.201, NAICS code 517911.

that number, 1,522 operated with fewer than 1000 employees and one operated with more than 1,000.⁴⁹ Thus under this category and the associated small business size standard, the majority of these resellers can be considered small entities. According to Commission data,⁵⁰ 881 carriers have reported that they are engaged in the provision of toll resale services. Of these, an estimated 857 have 1,500 or fewer employees and 24 have more than 1,500 employees. Consequently, the Commission estimates that the majority of toll resellers are small entities that may be affected by our action.

32. *Payphone Service Providers (PSPs)*. Neither the Commission nor the SBA has developed a small business size standard specifically for payphone services 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.⁵¹ Census Bureau data for 2007, which now supersede data from the 2002 Census, show that there were 3,188 firms in this category that operated for the entire year. Of this total, 3,144 had employment of 999 or fewer, and 44 firms had had employment of 1,000 employees or more. Thus under this category and the associated small business size standard, the majority of these PSPs can be considered small entities.⁵² According to Commission data,⁵³ 657 carriers have reported that they are engaged in the provision of payphone services. Of these, an estimated 653 have 1,500 or fewer employees and four have more than 1,500 employees. Consequently, the Commission estimates that the majority of payphone service providers are small entities that may be affected by our action.

33. *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.⁵⁴ Census data for 2007 show that 1,523 firms provided resale services during that year. Of that number, 1,522 operated with fewer than 1000 employees and one operated with more than 1,000.⁵⁵ Thus under this category and the associated small business size standard, the majority of these prepaid calling card providers can be considered small entities. According to Commission data, 193 carriers have reported that they are engaged in the provision of prepaid calling cards.⁵⁶ Of these, an estimated all 193 have 1,500 or fewer employees and none have more than 1,500 employees.⁵⁷ 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 Notice.

34. *800 and 800-Like Service Subscribers*.⁵⁸ 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

⁴⁹ See http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-_skip=800&-ds_name=EC0751SSSZ5&-_lang=en.

⁵⁰ TRENDS IN TELEPHONE SERVICE, tbl. 5.3.

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

⁵² See http://factfinder.census.gov/servlet/IBQTable?_bm=y&-fds_name=EC0700A1&-geo_id=&-_skip=600&-ds_name=EC0751SSSZ5&-_lang=en.

⁵³ TRENDS IN TELEPHONE SERVICE, tbl. 5.3.

⁵⁴ 13 C.F.R. § 121.201, NAICS code 517911.

⁵⁵ See http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-_skip=800&-ds_name=EC0751SSSZ5&-_lang=en.

⁵⁶ See *Trends in Telephone Service* at Table 5.3.

⁵⁷ See *id.*

⁵⁸ We include all toll-free number subscribers in this category, including those for 888 numbers.

Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁵⁹ Census data for 2007 show that 1,523 firms provided resale services during that year. Of that number, 1,522 operated with fewer than 1000 employees and one operated with more than 1,000.⁶⁰ Thus under this category and the associated small business size standard, the majority of resellers in this classification can be considered small entities. To focus specifically on the number of subscribers than on those firms which make subscription service available, 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.⁶¹ 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 5,888,687; the number of 877 numbers assigned was 4,721,866; and the number of 866 numbers assigned was 7,867,736. The Commission does 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, the Commission estimates that there are 7,860,000 or fewer small entity 800 subscribers; 5,888,687 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.

2. Wireless Carriers and Service Providers

35. Since 2007, the Census Bureau has placed wireless firms under the category of Wireless Telecommunications Carriers (except Satellite).⁶² Census data for 2007 show there were 1,383 firms that operated in this category during that year.⁶³ Of those 1,383, 1,368 had fewer than 100 employees, and 15 firms had more than 100 employees, based on the Census data.

36. The SBA has developed a small business size standard for Wireless Telecommunications Carriers (except Satellite) that deems a wireless business to be small if it has 1,500 or fewer employees.⁶⁴ We applied this standard to Commission data to develop another estimate of the number of wireless providers that are small. According to the Commission estimates based on FCC Form 499-A data, there were 970 wireless service providers in 2007.⁶⁵ Of those, an estimated 815 had 1,500 or fewer employees, and 155 had more than 1,500 employees.⁶⁶ In addition, 413 of the 970 providers reported that they were engaged in the provision of wireless telephony, including cellular service, Personal Communications

⁵⁹ 13 C.F.R. § 121.201, NAICS code 517911.

⁶⁰ See http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-_skip=800&-ds_name=EC0751SSSZ5&-_lang=en.

⁶¹ *Trends in Telephone Service* at Tables 18.4, 18.5, 18.6, 18.7.

⁶² U.S. Census Bureau, 2007 Economic Census, Sector 51, 2007 NAICS Definitions, “517210 Wireless Telecommunications Categories (Except Satellite)”; <http://www.census.gov/naics/2007/def/ND517210.HTM#N517210>. Prior to that time, such firms were within the now-superseded categories of “Paging” and “Cellular and Other Wireless Telecommunications.” 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>.

⁶³ 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.

⁶⁴ 13 C.F.R. § 121.201, NAICS code 517210 (2007 NAICS). 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).

⁶⁵ TRENDS IN TELEPHONE SERVICE, Table 5.3.

⁶⁶ *Id.*

Service (PCS), and Specialized Mobile Radio (SMR) Telephony services.⁶⁷ Of those, an estimated 261 had 1,500 or fewer employees, and 152 had more than 1,500 employees.⁶⁸ Thus, using the available Form 499-A and Census data, we estimate that the majority of wireless firms can be considered small.

37. In addition, the Commission has defined companies as “small businesses” and “very small businesses” when auctioning spectrum licenses, for purposes of determining eligibility for bidding credits, and the SBA has approved these definitions.⁶⁹ For example, in the Wireless Communications Service (WCS), 700 MHz Guard Band, and 39 GHz spectrum auctions, the Commission defined a “small business” 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.⁷⁰ In the 800 MHz/900 MHz, 220 MHz, and 24 GHz spectrum auctions, the Commission defined a “small business” as an entity that had revenues of no more than \$15 million in each of the three previous calendar years and a “very small business” as an entity that had revenues of no more than \$3 million in each of the three previous calendar years.⁷¹ However, the number of winning bidders that qualify as small businesses at the close of an auction is generally not an accurate representation of the number of small wireless providers potentially subject to Form 477. Reasons for this include: winning bidders may not offer service or may not offer a service subject to Form 477, winning bidders’ revenues may increase after an auction, and winning bidders may transfer their licenses to another entity. The Commission does not typically track the revenues of spectrum licensees subsequent to an auction, unless unjust enrichment issues are implicated in the context of spectrum license assignments or transfers.

3. Satellite Service Providers

38. *Satellite Telecommunications Providers.* Two economic census categories address the satellite industry. The first category has a small business size standard of \$15 million or less in average annual receipts, under SBA rules.⁷² The second has a size standard of \$25 million or less in annual receipts.⁷³

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

⁶⁸ See *id.*

⁶⁹ See, e.g., Letter from Aida Alvarez, Administrator, SBA, to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC (filed Dec. 2, 1998); *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, paras. 98-107 (1999); Letter to D. Phythyon, Chief, Wireless Telecommunications Bureau, FCC, from Aida Alvarez, Administrator, SBA (Jan. 6, 1998); Letter to Kathleen O’Brien Ham, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC, from Aida Alvarez, Administrator, SBA (Feb. 4, 1998); 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).

⁷⁰ *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); *Service Rules for the 746–764 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, at 5343, para. 108 (2000); *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 (1998).

⁷¹ 47 C.F.R. §§ 90.810, 90.814(b), 90.912; *220 MHz Third Report and Order*, 12 FCC Rcd at 11068-70, at paras. 291-95; *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 at para. 77 (2000); see also 47 C.F.R. § 101.538(a)(2).

⁷² 13 C.F.R. § 121.201, NAICS code 517410.

⁷³ 13 C.F.R. § 121.201, NAICS code 517919.

39. The category of Satellite Telecommunications “comprises establishments primarily engaged in providing 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.”⁷⁴ Census Bureau data for 2007 show that 512 Satellite Telecommunications firms that operated for that entire year.⁷⁵ Of this total, 464 firms had annual receipts of under \$10 million, and 18 firms had receipts of \$10 million to \$24,999,999.⁷⁶ Consequently, the Commission estimates that the majority of Satellite Telecommunications firms are small entities that might be affected by our action.

40. The second category, i.e. “All Other Telecommunications” comprises “establishments 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.”⁷⁷ For this category, Census Bureau data for 2007 show that there were a total of 2,383 firms that operated for the entire year.⁷⁸ Of this total, 2,347 firms had annual receipts of under \$25 million and 12 firms had annual receipts of \$25 million to \$49,999,999.⁷⁹ Consequently, the Commission estimates that the majority of All Other Telecommunications firms are small entities that might be affected by our action.

4. Cable and OVS Operators

41. Because section 706 requires us to monitor the deployment of broadband regardless of technology or transmission media employed, the Commission anticipates that some broadband service providers may not provide telephone service. Accordingly, the Commission describes below other types of firms that may provide broadband services, including cable companies, MDS providers, and utilities, among others.

42. *Cable and Other Program Distributors.* 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.”⁸⁰ The SBA has developed a small business size standard for this category, which is: all such firms having 1,500 or fewer employees. Census data for 2007, which supersede data contained in the 2002 Census, show that

⁷⁴ U.S. Census Bureau, 2007 NAICS Definitions, “517410 Satellite Telecommunications.”

⁷⁵ See http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-_skip=900&-ds_name=EC0751SSSZ4&-_lang=en.

⁷⁶ See http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-_skip=900&-ds_name=EC0751SSSZ4&-_lang=en.

⁷⁷ See <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517919&search=2007%20NAICS%20Search>.

⁷⁸ U.S. Census Bureau, http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-_skip=900&-ds_name=EC0751SSSZ4&-_lang=en.

⁷⁹ See http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-_skip=900&-ds_name=EC0751SSSZ4&-_lang=en.

⁸⁰ U.S. Census Bureau, 2007 NAICS Definitions, “517110 Wired Telecommunications Carriers,” (partial definition), <http://www.census.gov/naics/2007/def/ND517110.HTM#N517110> (last visited Oct. 21, 2009).

there were 1,383 firms that operated that year.⁸¹ 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 such firms can be considered small.

43. *Cable Companies and Systems.* The Commission has also 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.⁸² Industry data indicate that, of 1,076 cable operators nationwide, all but eleven are small under this size standard.⁸³ In addition, under the Commission's rules, a "small system" is a cable system serving 15,000 or fewer subscribers.⁸⁴ 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.⁸⁵ Thus, under this second size standard, most cable systems are small.

44. *Cable System Operators.* The Communications Act of 1934, as amended, 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."⁸⁶ 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.⁸⁷ Industry data indicate that, of 1,076 cable operators nationwide, all but ten are small under this size standard.⁸⁸ 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,⁸⁹ and therefore we are unable to estimate more accurately the number of cable system operators that would qualify as small under this size standard.

45. *Open Video Services.* Open Video Service (OVS) systems provide subscription services.⁹⁰ 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

⁸¹ 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.

⁸² 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. *Implementation of Sections of the 1992 Cable Act: Rate Regulation*, Sixth Report and Order and Eleventh Order on Reconsideration, 10 FCC Rcd 7393, 7408 (1995).

⁸³ See BROADCASTING & CABLE YEARBOOK 2006, at A-8, C-2 (Harry A. Jessell ed., 2005) (data current as of June 30, 2005); TELEVISION & CABLE FACTBOOK 2006, at D-805 to D-1857 (Albert Warren ed., 2005).

⁸⁴ 47 C.F.R. § 76.901(c).

⁸⁵ TELEVISION & CABLE FACTBOOK 2006, at F-2 (Albert Warren ed., 2005) (data current as of Oct. 2005). The data do not include 718 systems for which classifying data were not available.

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

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

⁸⁸ See BROADCASTING & CABLE YEARBOOK 2006, at A-8, C-2 (Harry A. Jessell ed., 2005) (data current as of June 30, 2005); TELEVISION & CABLE FACTBOOK 2006, at D-805 to D-1857 (Albert Warren ed., 2005).

⁸⁹ 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. See 47 C.F.R. § 76.909(b).

⁹⁰ See 47 U.S.C. § 573.

carriers.⁹¹ The OVS framework provides opportunities for the distribution of video programming other than through cable systems. Because OVS operators provide subscription services,⁹² OVS falls within the SBA small business size standard covering cable services, which is “Wired Telecommunications Carriers.”⁹³ The SBA has developed a small business size standard for this category, which is: all such firms having 1,500 or fewer employees. To gauge small business prevalence for the OVS service, the Commission relies on data currently available from the U.S. Census for the year 2007. According to that source, there were 3,188 firms that in 2007 were Wired Telecommunications Carriers. Of these, 3,144 operated with less than 1,000 employees, and 44 operated with more than 1,000 employees. However, as to the latter 44 there is no data available that shows how many operated with more than 1,500 employees. Based on this data, the majority of these firms can be considered small.⁹⁴ In addition, we note that the Commission has certified some OVS operators, with some now providing service.⁹⁵ Broadband service providers (“BSPs”) are currently the only significant holders of OVS certifications or local OVS franchises.⁹⁶ 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, at least some of the OVS operators may qualify as small entities. The Commission further notes that it has certified approximately 45 OVS operators to serve 75 areas, and some of these are currently providing service.⁹⁷ Affiliates of Residential Communications Network, Inc. (RCN) received approval to operate OVS systems in New York City, Boston, Washington, D.C., and other areas. RCN has sufficient revenues to assure that they do not qualify as a small business entity. Little financial information is available for the other entities that are authorized to provide OVS and are not yet operational. Given that some entities authorized to provide OVS service have not yet begun to generate revenues, the Commission concludes that up to 44 OVS operators (those remaining) might qualify as small businesses that may be affected by the rules and policies adopted herein.

5. Internet Service Providers, Web Portals and Other Information Services

46. In 2007, the SBA recognized two new small business, economic census categories. They are (1) Internet Publishing and Broadcasting and Web Search Portals,⁹⁸ and (2) All Other Information Services.⁹⁹

47. *Internet Service Providers.* The 2007 Economic Census places these firms, whose services might include voice over Internet protocol (VoIP), in either of two categories, depending on whether the service is provided over the provider’s own telecommunications facilities (e.g., cable and DSL ISPs), or over client-supplied telecommunications connections (e.g., dial-up ISPs). The former are within the category of Wired Telecommunications Carriers,¹⁰⁰ which has an SBA small business size

⁹¹ 47 U.S.C. § 571(a)(3)-(4). See *13th Annual Report*, 24 FCC Rcd at 606, ¶ 135.

⁹² See 47 U.S.C. § 573.

⁹³ U.S. Census Bureau, 2007 NAICS Definitions, “517110 Wired Telecommunications Carriers”; <http://www.census.gov/naics/2007/def/ND517110.HTM#N517110>.

⁹⁴ See http://factfinder.census.gov/servlet/IBQTable?_bm=y&-fds_name=EC0700A1&-geo_id=&-_skip=600&-ds_name=EC0751SSSZ5&-_lang=en.

⁹⁵ A list of OVS certifications may be found at <http://www.fcc.gov/mb/ovs/csovsr.html>.

⁹⁶ See *13th Annual Report*, 24 FCC Rcd at 606-07, ¶ 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.

⁹⁷ See <http://www.fcc.gov/mb/ovs/csovsr.html> (current as of February 2007).

⁹⁸ 13 C.F.R. § 121.201, NAICS code 519130 (establishing a \$500,000 revenue ceiling).

⁹⁹ 13 C.F.R. § 121.201, NAICS code 519190 (establishing a \$6.5 million revenue ceiling).

¹⁰⁰ U.S. Census Bureau, 2007 NAICS Definitions, “517110 Wired Telecommunications Carriers”; <http://www.census.gov/naics/2007/def/ND517110.HTM#N517110>.

standard of 1,500 or fewer employees.¹⁰¹ These are also labeled “broadband.” The latter are within the category of All Other Telecommunications,¹⁰² which has a size standard of annual receipts of \$25 million or less.¹⁰³ These are labeled non-broadband.

48. The most current Economic Census data for all such firms are 2007 data, which are detailed specifically for ISPs within the categories above. For the first category, the data show that 396 firms operated for the entire year, of which 159 had nine or fewer employees.¹⁰⁴ For the second category, the data show that 1,682 firms operated for the entire year.¹⁰⁵ Of those, 1,675 had annual receipts below \$25 million per year, and an additional two had receipts of between \$25 million and \$ 49,999,999. Consequently, we estimate that the majority of ISP firms are small entities.

49. Internet Publishing and Broadcasting and Web Search Portals. This industry comprises establishments 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). The publishing and broadcasting establishments in this industry do not provide traditional (non-Internet) versions of the content that they publish or broadcast. They provide textual, audio, and/or video content of general or specific interest on the Internet exclusively. Establishments known as Web search portals often provide additional Internet services, such as e-mail, connections to other web sites, auctions, news, and other limited content, and serve as a home base for Internet users.¹⁰⁶ The SBA has developed a small business size standard for this category; that size standard is 500 employees.¹⁰⁷ Less than 500 employees is considered small.¹⁰⁸ According to Census Bureau data for 2007, there were 2,705 firms that provided one or more of these services for that entire year. Of these, 2,682 operated with less than 500 employees and 13 operated with 500 to 999 employees.¹⁰⁹ Consequently, we estimate that the majority of these firms are small entities that may be affected by our action.

50. *Data Processing, Hosting, and Related Services.* This industry comprises establishments primarily engaged in providing infrastructure for hosting or data processing services. These establishments may provide specialized hosting activities, such as web hosting, streaming services or application hosting; provide application service provisioning; or may provide general time-share mainframe facilities to clients. Data processing establishments provide complete processing and specialized reports from data supplied by clients or provide automated data processing and data entry services. The SBA has developed a small business size standard for this category; that size standard is \$25 million or less in average annual receipts.¹¹⁰ According to Census Bureau data for 2007, there were

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

¹⁰² U.S. Census Bureau, 2007 NAICS Definitions, “517919 All Other Telecommunications”; <http://www.census.gov/naics/2007/def/ND517919.HTM#N517919>.

¹⁰³ 13 C.F.R. § 121.201, NAICS code 517919 (updated for inflation in 2008).

¹⁰⁴ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, “Establishment and Firm Size,” NAICS code 5171103 (released Nov. 19, 2010) (employment size). The data show only two categories within the whole: the categories for 1-4 employees and for 5-9 employees.

¹⁰⁵ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, “Establishment and Firm Size,” NAICS code 5179191 (released Nov. 19, 2010) (receipts size).

¹⁰⁶ See <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=519130&search=2007%20NAICS%20Search>.

¹⁰⁷ See http://www.sba.gov/sites/default/files/Size_Standards_Table.pdf.

¹⁰⁸ 13 C.F.R. § 121.201, NAICS code 519130.

¹⁰⁹ See http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-_skip=1000&-ds_name=EC0751SSSZ5&-_lang=en.

¹¹⁰ 13 C.F.R. § 121.201, NAICS code 518210.

8,060 firms in this category that operated for the entire year.¹¹¹ Of these, 6,726 had annual receipts of under \$25 million, and 155 had receipts between \$25 million and \$49,999,999 million.¹¹² Consequently, we estimate that the majority of these firms are small entities that may be affected by our action.

51. *All Other Information Services.* “This industry comprises establishments primarily engaged in providing other information services (except new syndicates and libraries and archives).”¹¹³ 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.¹¹⁴ According to Census Bureau data for 2007, there were 367 firms in this category that operated for the entire year.¹¹⁵ Of these, 334 had annual receipts of under \$5 million, and an additional 11 firms had receipts of between \$5 million and \$9,999,999.¹¹⁶ 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

52. In today’s Order, the Commission modifies the FCC Form 477 data collection to streamline the collection and improve the quality of the data collected. These revisions impose further reporting and recordkeeping requirements on current Form 477 filers, including small entities.

53. *Deployment.* To ensure continuity with the National Broadband Map, the Commission will collect network deployment data for fixed and mobile broadband as well as mobile voice network deployment data. The Order requires each facilities-based provider of fixed broadband service to provide a list of all census blocks in which it makes broadband service available to end users. Facilities-based providers of fixed broadband service will also be required to report the maximum speed offered in each census block where they offer service, breaking out reporting for residential and nonresidential services where appropriate, and by technology. With respect to mobile broadband, for each mobile broadband network technology (e.g., EV-DO, WCDMA, HSPA+, LTE, WiMAX) deployed in each frequency band (e.g., 700 MHz, Cellular, AWS, PCS, BRS/EBS), facilities-based mobile broadband providers should submit polygons representing the nationwide coverage area (including U.S. territories) of that technology. Facilities-based mobile wireless voice providers must submit geospatial data of their coverage area boundaries. For both fixed and mobile broadband deployment data, filers must report data on advertised speeds; to reduce the burden on filers, the Commission eliminates predetermined speed tiers. Also to reduce burdens, the Commission allows mobile service providers to submit coverage maps on a nationwide rather than state-by-state basis.

¹¹¹ See http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-_skip=1000&-ds_name=EC0751SSSZ4&-_lang=en.

¹¹² See http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-_skip=1000&-ds_name=EC0751SSSZ4&-_lang=en.

¹¹³ U.S. Census Bureau, “2002 NAICS Definitions: 519190 All Other Information Services”; <http://www.census.gov/epcd/naics02/def/NDEF519.HTM>.

¹¹⁴ 13 C.F.R. § 121.201, NAICS code 519190. See also http://www.sba.gov/sites/default/files/Size_Standards_Table.pdf.

¹¹⁵ See http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-_skip=1200&-ds_name=EC0751SSSZ4&-_lang=en.

¹¹⁶ See http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-_skip=1100&-ds_name=EC0751SSSZ4&-_lang=en.

54. *Subscription.* To improve the quality of the subscription data the Commission collects, the Order requires providers of fixed voice and interconnected VoIP services to file subscription data by census tract, as is currently required for fixed broadband subscription data, rather than the current process of requiring such providers to submit the list of ZIP codes in which they provide service to end-user customers. The Order also eliminates the use of speed tiers for broadband subscription data, and requires filers to provide the number of broadband connections by the advertised speeds associated with each product subscribed to in the relevant geographic area. Fixed providers will report connections by the maximum advertised upload and download speeds in each census tract, while mobile providers will report connections by minimum advertised upload and download speeds in each state.

55. The Order eliminates questions and requirements on the current Form 477 that require certain broadband providers to report information about the availability of broadband service, as opposed to information about actual subscribership to broadband service. These questions are no longer necessary in light of the new Form 477 collection of broadband deployment data, discussed above. Specifically, the Order eliminates Part I.B of the current form, which requires, by state: (1) each incumbent LEC with any DSL connections in service to report its best estimate of the percentage of residential end user premises in its service area to which its DSL connections could be provided using installed distribution facilities, (2) each cable system with any cable modem connections in service to report its best estimate of the percentage of residential end user premises in its service area to which its cable modem connections could be provided using installed distribution facilities, and (3) each network operator serving any terrestrial mobile wireless broadband subscribers to report the total number of subscribers (*i.e.*, including broadband, broadband plus voice, and voice-only subscribers) whose mobile device is capable of sending or receiving data at information transfer rates exceeding 200 kbps in at least one direction. In addition, the Order eliminates the requirement that fixed broadband providers submit data for every census tract within their “defined service territory” regardless of the number of subscribers in the tract. By eliminating these questions, the Commission protects against duplication in its collection and reduces the burden on filers by narrowly tailoring its collection of data to those most useful to the Commission.

56. In addition, the Commission eliminates the requirement that broadband providers submit state-level data on the percentage of their connections that are billed to end users and the percentage that are equipped over their own facilities. The Commission typically does not rely on these metrics at this level for competitive analysis, nor has it reported them in its semiannual *Internet Access Services* reports. Eliminating them will greatly simplify the revised Form 477 and its data collection interface, and will reduce burden for filers.

57. The Commission also modifies its current data collection in several ways to eliminate unnecessary information and produce data better suited to competitive analysis. The Commission removes the requirement that providers of local exchange telephone service report the number of lines provided to unaffiliated communications carriers as UNE-Platform (UNE-P). The Commission also eliminates reporting of the percentage of end-user lines provided over UNE-P. In addition, providers of interconnected VoIP service will no longer be required to report the number of companies purchasing their VoIP components or service for resale. The Commission typically does not rely on this metric at this level for competitive analysis. The Commission also simplifies the categories of information interconnected VoIP providers must provide. Currently, the Form requires filers to report the percentage of VoIP subscriptions with nomadic functionality. The Order finds the burdens of this reporting distinction do not outweigh the benefits and so eliminates the nomadic category. Finally, the Commission requires local exchange telephone service providers to report, by state, how many of their access lines are bundled with broadband. This information about bundling can be evidence of consumers’ willingness to switch voice service providers, and hence improves the Commission’s competitive analysis.

58. *Company Identification and Contact Information.* To enhance the Commission’s ability to meet public safety needs and obligations, the Order requires entities filing Form 477 to provide additional company identification and contact information. In addition to the current Form 477 requirements, the Commission will require filers to report the company’s Universal Service

Administrative Company (USAC) study area codes, USAC 499 identification numbers, and website address. The Order also requires that filers report the title of their certifying official and the name, phone number, and email address of their emergency operations contact. This information will assist the Commission in fulfilling its universal service mandate, evaluating merger, forbearance, and other applications, and protecting public safety. The information currently collected by Form 477 is not sufficient for use in promptly contacting providers' network operating centers during emergencies.

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

59. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include (among others) the following four alternatives: (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.¹¹⁷

60. The Commission needs access to data that are comprehensive, reliable, sufficiently disaggregated, and reported in a standardized manner. The Order recognizes, however, that reporting obligations impose burdens on the reporting providers. Consequently, the Commission limits its collection to information that is narrowly tailored to meet its needs.

61. *Deployment.* With regard to the collection of deployment data, the changes to the SBI collection adopted in the Order are designed to reduce filing burdens and increase reliability of the data in several ways. The collection will occur in a single, unified process rather than on a state-by-state basis. A single, nationwide filing (that includes both deployment and subscription data) will help eliminate potential variations among states, and reduce to one the number of entities with which a multistate provider must coordinate for its filing. In addition, the elimination of speed tiers will reduce burdens associated with categorizing data into those tiers. The data will also be more reliable because all providers must file, and must certify to the accuracy upon filing. The Commission also declined to gather fixed broadband deployment data at a level more granular than the census block, finding that the added complexity and burden are unlikely at this time to provide a significant insight into how many residences and businesses lack access to service. In short, the collection is carefully tailored to provide the Commission the data it needs to fulfill its mission, while taking steps to minimize the burden on filers. As a result, the Commission expects that communications providers' overall reporting burden will decrease even though the Commission will be collecting more data.

62. The Commission considered whether data available from outside sources, including providers' websites, are sufficient to inform the Commission about the expansion of broadband networks. The Commission found, however, that reliance on third-party data is not appropriate for a primary source of deployment data. Among the problems the Commission faces in using commercial data are restrictions on reuse and publication of the data on which the Commission would rely. In addition, the Commission found in the *2012 Eighth Broadband Progress Report* that while Mosaik data provide a useful tool for measuring developments in mobile broadband deployment, they may overstate the extent of mobile broadband coverage.¹¹⁸ Furthermore, because Mosaik reports advertised coverage as reported to it by mobile wireless providers, each of which may use a different standard for determining coverage, the

¹¹⁷ 5 U.S.C. § 603(c).

¹¹⁸ *2012 Eighth Broadband Progress Report*, 27 FCC Rcd at 10367–68, paras. 39–40. The Commission had similar concerns regarding the SBI data estimates of mobile broadband deployment. Specifically, the Commission had concerns that providers are reporting services as meeting the broadband speed benchmark when they likely do not. *See id.* at 10366–67, paras. 35–38. However, we are making modifications to that collection to make the data more useful.

Mosaik data are not consistent across geographic areas and service providers.¹¹⁹ Finally, tracking down deployment information on providers' websites would not provide consistent data for analysis, would be time consuming, and might not be comprehensive. The information on providers' websites is not certified and is generally not available in a format consistent enough to provide the level of geographic granularity the Commission requires.

63. In the Order, the Commission recognizes that submitting any information imposes burdens, which may be most keenly felt by small providers, but concludes that the benefits of having comprehensive data substantially outweigh the burdens. One of the primary objectives of Form 477 is to inform the Commission's efforts to encourage broadband deployment on a reasonable and timely basis to *all* Americans. The Commission concluded it that would miss important data relevant to this objective if it were to exempt small providers, which are likely to serve rural or insular areas of the United States, where barriers to deployment are typically the highest. Additionally, obtaining this information from small and rural providers helps ensure that Connect America Fund support is indeed increasing broadband deployment and will help the Commission keep its universal service policies appropriately tailored over time. At the same time, the Commission is cognizant of the burdens of data collections, and has therefore taken steps to minimize burdens, including by making the deployment collection consistent, to a large extent, with NTIA's SBI data collection. For all of these reasons, the Commission concluded that the benefits of collecting deployment data outweigh the burdens on small providers that may be associated with collection of these data.

64. The Commission specifically considered at what geographic level to require reporting from small providers. The Commission found that reporting by census block will not be unduly burdensome for the majority of fixed broadband service providers, as many of these providers already voluntarily report deployment data by census block to NTIA's SBI program. Fixed broadband providers have, since June 2010, submitted the characteristics of their broadband deployment by census block to state mapping designees.

65. The Commission also considered whether to gather fixed broadband deployment data at a level more granular than the census block. The Commission declined to do so at this time because the added complexity and burden are unlikely to provide a significant insight into how many residences and businesses lack access to service. The Commission found that many providers do not maintain broadband network deployment data on an address-by-address basis. Also, rural areas where networks are deployed may not have "street" addresses assigned. The Commission was not persuaded that the benefits of requiring address-level data would outweigh the overall increase in the filing burden. The Commission concluded that requiring providers to report fixed broadband deployment data by census block appropriately balances the burdens of reporting this information to the Commission with the level of granularity required to carry out our statutory duties.

66. The Commission also found that burdens on mobile wireless providers associated with providing digital representations of and geospatial data on their network coverage areas are not significant, and are outweighed by the public interest benefits associated with our collection. The geospatial data the Commission is collecting on spectrum and technology are used by mobile service providers for radio frequency (RF) network design and are an integral part of every mobile service provider's ordinary course of business. Accordingly, mobile deployment data by spectrum bands and network technology should be readily available to mobile service providers given that any mobile network deployment plan would include both the spectrum and the network technology to be used for such deployment.

67. In addition, many providers develop and maintain such data in order to publish maps of their coverage areas on their websites and in other promotional materials, and certain operators have

¹¹⁹ See 2012 Eighth Broadband Progress Report, 27 FCC Rcd at 10367-68, para. 40; Sixteenth CMRS Competition Report, 28 FCC Rcd at 3704, para. 2, n.5.

provided network coverage boundaries to Mosaik. Certain providers also have submitted coverage area boundaries to the Commission as part of wireless transaction proceedings, and many providers have submitted coverage area boundaries in the SBI data collection. There are multiple GIS (Geographical Information Systems) platforms capable of creating and managing geospatial data on mobile network coverage areas, and there are many GIS specialists and engineering consultants in the United States who are able to provide expertise and develop such data for providers that do not have internal GIS resources.

68. Finally, the Commission also considered whether the collection of fixed voice network deployment data is warranted. It concluded that collecting additional fixed voice network deployment data on Form 477 would be largely redundant and would impose an additional burden on voice providers. Therefore, the Commission declined to require providers of fixed voice services to report deployment data on Form 477.

69. *Subscription.* While the Commission believes that more granular subscription data would be preferable, it declines to collect more granular subscription data at this time to ensure that any burdens are minimized before initiating any additional collections. Accordingly, the Commission directs the Wireline Competition Bureau to test technical improvements to the Form 477 filing mechanism that might reduce the burden of filing more detailed subscription data. If, after analyzing such tests, the Bureau determines there is a means of minimizing burdens with a more detailed approach, the Commission will revisit whether to initiate such collection.

70. The Commission also eliminates the requirement that providers submit broadband data in predetermined speed tiers, and instead will require providers of broadband services, for both subscription and deployment data, simply to provide advertised speeds—the maximum advertised speed in each census block for fixed broadband, and the minimum advertised speed in each coverage area for mobile broadband. Streamlining the collection in this manner will give the Commission greater flexibility to group and analyze broadband speed data in useful ways. Eliminating speed tiers will permit the Commission to conduct a consistent analysis of subscription and deployment data and, because they will no longer be required to categorize the number of connections into existing speed tiers, will reduce burdens on filers.

71. *Company Identification Information.* In the Order, the Commission recognizes that it currently collects some company identification information in other contexts. Although these collections do not duplicate the information collection adopted in the Order—they apply to small subsets of the universe of Form 477 filers and do not request the same level of detail—the Commission nonetheless takes precautions to ensure that no entity is burdened with duplicative filings. Accordingly, the Commission directed the Wireline Competition Bureau, in consultation with the Wireless Telecommunications Bureau, to identify any circumstances in which the collection of company identification information on Form 477 may duplicate another Commission collection, and to exempt filers from the latter in those instances.

F. Report to Congress

72. The Commission will send a copy of the Order, including this FRFA, in a report to be sent to Congress pursuant to the Congressional Review Act.¹²⁰ In addition, the Commission will send a copy of the Order, including this FRFA, to the Chief Counsel for Advocacy of the SBA. A copy of the Order and FRFA (or summaries thereof) will also be published in the Federal Register.¹²¹

¹²⁰ See 5 U.S.C. § 801(a)(1)(A).

¹²¹ See 5 U.S.C. § 604(b).

**STATEMENT OF
ACTING CHAIRWOMAN MIGNON L. CLYBURN**

Re: *Modernizing the FCC Form 477 Data Program*, WC Docket No. 11-10.

While this item may not be flashy, it is critical to our agency's effectiveness and core mission. The Commission must have complete, accurate, and reliable data to fulfill our statutory duties of promoting universal service, public safety, a competitive communications marketplace, and the reasonable and timely deployment of broadband networks. I am pleased that my colleagues join me today to improve and streamline our collection of data about broadband and voice services.

The changes we make today will ensure that the Commission, other government agencies, and the public will continue to have access to the National Broadband Map. This publicly available tool, which shows the availability of fixed and mobile broadband throughout America, has become a critical resource for our nation. The FCC has used the National Broadband Map to determine unserved areas for universal service purposes, among other key policy initiatives.

NTIA, in partnership with the states, has been collecting and populating the National Broadband Map for the past 3 years, and I thank and applaud them for their tireless work in doing so. This item will allow the FCC to build upon NTIA's fantastic work, while taking steps to reduce burdens on providers.

We must remain mindful of the costs that the collection of data for policy-making purposes may impose on industry and ultimately on consumers and ratepayers. The steps taken in the *Report and Order* address this concern by reducing reporting burdens while improving the quality of the data collected on Form 477. For example, the item institutes a single, uniform filing format, and eliminates the requirement that providers place their subscribers in various government-defined speed tiers and instead has providers report their self-selected advertised speeds. These changes will reduce the amount of time and effort needed to provide us this information and increase the Commission's flexibility in analyzing the data.

While this *Report and Order* does not collect pricing or more granular subscription data as some parties have requested, it leaves the door open to do so. The Order initiates a voluntary program for providers to help test a client-side application that will evaluate ways to collect more granular data in a manner that minimizes burdens on respondents. These technical improvements are an important step to enable the Commission to collect additional data in the future.

Finally, I am pleased that this item takes steps to explore making the subscription data collected on the Form 477 available to the public, including researchers. Such information is a valuable resource for local and state governments, academics, as well as members of the general public. I encourage the Wireline Competition Bureau, in consultation with the Wireless Telecommunications Bureau, to explore ways to facilitate greater public access to the subscription data collected on the Form 477, while still protecting competitively sensitive data.

I would like to thank my fellow Commissioners, as well as the staffs of the Wireline Competition Bureau and the Wireless Telecommunications Bureau, for your tireless work on this item.

**STATEMENT OF
COMMISSIONER JESSICA ROSENWORCEL**

Re: *Modernizing the FCC Form 477 Data Program*, WC Docket No. 11-10.

We cannot manage what we do not measure. The person who taught me this was the late Senator Inouye. I had the privilege of working for him when he introduced the Broadband Data Improvement Act. A copy of this law, which was later incorporated into the American Recovery and Reinvestment Act, hangs on my office wall—complete with his signature.

The point of his truism is simple, but the reality is profound. If we want to tackle our nation's challenges, we need good data to drive our policies.

To this end, the Broadband Data Improvement Act helped usher in a new era of more data-centric broadband policy. It led to a grant program at the National Telecommunications and Information Administration (NTIA) that in turn, led to a National Broadband Map. We can and should improve on the information in this map. But without the basic data it provides, we would never have been able to pursue major policy goals, like the reform of our universal service system to support broadband deployment.

As the NTIA's grant program nears completion, it is time to ensure that what we have built becomes a foundation for good policy going forward. It is time for the FCC to take up NTIA's broadband data collection efforts and continue to improve upon them.

For these reasons, I am pleased to support today's Report and Order. Although limited in scope, it puts us on the path of securing continuity of the National Broadband Map by updating our Form 477 to collect network deployment data for fixed and mobile broadband. It also takes measures to improve the quality of our broadband and voice subscription data while reducing burdens on providers.

Going forward, I hope we will continue to consider further improvements to our data collection efforts. Some of these have been teed up in our record, including the collection of pricing data—which I acknowledge can be sensitive and complicated. Yet studies consistently demonstrate that roughly one-third of Americans choose not to subscribe to broadband, citing lack of relevance, lack of digital literacy, and lack of affordability. How can our policies ensure that Americans do not end up on the wrong side of the digital divide without a better understanding of cost and affordability? Again, we cannot manage what we do not measure. We cannot fix what we do not understand. So I look forward to further discussion on these issues. Because with better broadband data, we can have better broadband policy.

**STATEMENT OF
COMMISSIONER AJIT PAI**

Re: *Modernizing the FCC Form 477 Data Program*, WC Docket No. 11-10.

It's fair to say that the FCC collects a lot of data and issues a lot of reports. According to the White House Office of Information and Regulatory Affairs, for example, the Commission collects information in 424 distinct ways from members of the public.¹ We release a host of reports on different aspects of the communications marketplace, some each year as mandated by Congress² and others more intermittently.³

Today we start consolidating some of the disparate collections that underlie those reports in a way that—we hope—reduces the burden on telephone and broadband service providers while at the same time providing the information that Congress and the Commission need to make well-informed policy decisions. I am pleased that my colleagues accepted several of my suggestions to streamline this collection, such as by making clear that multi-state providers need only file once to report their data, rather than filing a separate form for each state. We also direct the Bureaus to develop software to reduce the cost of filing, for those providers that volunteer to use it. More generally, I appreciate Chairwoman Clyburn for crafting a consensus, leaving contentious issues like the collection of broadband pricing information for another day.

That takes care of input. What about output, namely, the reports we release? We'll rely on the data we collect here for five separate reports: the Broadband Deployment Report, the Internet Access Services Report, the Local Telephone Competition Report, the Wireless Competition Report, and the International Broadband Data Report. I'd like to consolidate all these reports, but our congressional reporting requirements stem from a halcyon time when each silo of the communications industry was an easily defined marketplace unto itself. That's why I support efforts in Congress to pass the Federal Communications Commission Consolidated Reporting Act. This legislation would give the FCC the freedom to extend the reforms we adopt today, eliminating outdated obligations and refining our work in a way that makes sense for us, for Congress, and for consumers.

Finally, this order has been two years in the making, and I would be remiss if I didn't thank Kirk Burgee, Ellen Burton, Jean Ann Collins, Bill Dever, Lisa Gelb, Chelsea Fallon, Nese Guendelsberger, Diane Griffin Holland, Michael Janson, Melissa Kinkel, Doug Klein, Travis Litman, Ken Lynch, Marcus Maher, Ruth Milkman, Steve Rosenberg, Paroma Sanyal, Jim Schlichting, Mitali Shah, Carol Simpson, Susan Singer, Jamie Susskind, Julie Veach, and Rodger Woock for their contributions. And I believe now is an appropriate time to recognize the analysts, the economists, the number crunchers, and the data

¹ See Office of Information and Regulatory Affairs, Inventory of Currently Approved Information Collections for the Federal Communications Commission, www.reginfo.gov (last visited June 26, 2013).

² FCC Report to Congress as Required by the ORBIT Act, Fourteenth Report, FCC 13-80 (June 7, 2013) (Statement of Commissioner Pai) (noting that the Open-Market Reorganization for the Betterment of International Telecommunications Act "requires the Commission to annually update Congress on the agency's progress in implementing the Act, even though that statute's goal . . . has long since been achieved"), available at <http://go.usa.gov/bM2w>.

³ GAO, Report to the Acting Chairwoman of the Federal Communications Commission on the Video Marketplace: Competition Is Evolving, and Government Reporting Should Be Reevaluated, GAO-13-576 (June 2013) (noting that the Commission has failed to publish required reports on the cable industry eight times in the last decade, and recommending that the Commission consider whether it would make sense to issue such reports less frequently and transmit its analysis to Congress), available at <http://go.usa.gov/bM4m>.

wizards of the Industry Analysis and Technology Division. You turn the vast information we collect into products useful for policymakers, an often unsung task but one worthy of great thanks.