

Commission estimates that the majority of OSPs are small entities.

17. **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.³¹ According to Commission data,³² 88 carriers have reported that they are engaged in the provision of prepaid calling cards. Of these, an estimated 85 have 1,500 or fewer employees and three have more than 1,500 employees. Consequently, the Commission estimates that the majority of prepaid calling card providers are small entities.

18. **800 and 800-Like Service Subscribers.**³³ Neither the Commission nor the SBA has developed a small business size standard specifically for 800 and 800-like service (“toll free”) subscribers. The appropriate size standard under SBA rules is for the category Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.³⁴ The most reliable source of information regarding the number of these service subscribers appears to be data the Commission receives from Database Service Management on the 800, 866, 877, and 888 numbers in use.³⁵ According to our data, at the end of December 2007, the number of 800 numbers assigned was 7,860,000; the number of 888 numbers assigned was 5,210,184; the number of 877 numbers assigned was 4,388,682; and the number of 866 numbers assigned was 7,029,116. We do not have data specifying the number of these subscribers that are independently owned and operated or have 1,500 or fewer employees, and thus are unable at this time to estimate with greater precision the number of toll free subscribers that would qualify as small businesses under the SBA size standard. Consequently, we estimate that there are 7,860,000 or fewer small entity 800 subscribers; 5,210,184 or fewer small entity 888 subscribers; 4,388,682 or fewer small entity 877 subscribers, and 7,029,116 or fewer entity 866 subscribers.

19. **Satellite Telecommunications and All Other Telecommunications.** These 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.³⁶ The second has a size standard of \$25 million or less in annual receipts.³⁷ The most current Census Bureau data in this context, however, are from the (last) economic census of 2002, and we will use those figures to gauge the prevalence of small businesses in these categories.³⁸

20. 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.”³⁹ For this category, Census Bureau data for 2002 show that there

³¹ 13 C.F.R. § 121.201, NAICS code 517310.

³² “Trends in Telephone Service” at Table 5.3.

³³ We include all toll-free number subscribers in this category.

³⁴ 13 C.F.R. § 121.201, NAICS code 517310.

³⁵ “Trends in Telephone Service” at Tables 18.4, 18.5, 18.6, and 18.7.

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

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

³⁸ 13 C.F.R. § 121.201, NAICS codes 517410 and 517910 (2002).

³⁹ U.S. Census Bureau, 2007 NAICS Definitions, “517410 Satellite Telecommunications”; <http://www.census.gov/naics/2007/def/ND517410.HTM>.

were a total of 371 firms that operated for the entire year.⁴⁰ Of this total, 307 firms had annual receipts of under \$10 million, and 26 firms had receipts of \$10 million to \$24,999,999.⁴¹ Consequently, we estimate that the majority of Satellite Telecommunications firms are small entities.

21. The second category of All Other Telecommunications comprises, *inter alia*, “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.”⁴² For this category, Census Bureau data for 2002 show that there were a total of 332 firms that operated for the entire year.⁴³ Of this total, 303 firms had annual receipts of under \$10 million and 15 firms had annual receipts of \$10 million to \$24,999,999.⁴⁴ Consequently, we estimate that the majority of All Other Telecommunications firms are small entities.

22. **Wireless Telecommunications Carriers (except Satellite).** Since 2007, the Census Bureau has placed wireless firms within this new, broad, economic census category.⁴⁵ Prior to that time, such firms were within the now-superseded categories of “Paging” and “Cellular and Other Wireless Telecommunications.”⁴⁶ Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees.⁴⁷ Because Census Bureau data are not yet available for the new category, we will estimate small business prevalence using the prior categories and associated data. For the category of Paging, data for 2002 show that there were 807 firms that operated for the entire year.⁴⁸ Of this total, 804 firms had employment of 999 or fewer employees, and three firms had employment of 1,000 employees or more.⁴⁹ For the category of Cellular and Other Wireless Telecommunications, data for 2002 show that there were 1,397 firms that operated for the entire year.⁵⁰ Of this total, 1,378 firms had employment of 999 or fewer employees, and 19 firms had employment of

⁴⁰ U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization),” Table 4, NAICS code 517410 (issued Nov. 2005).

⁴¹ *Id.* An additional 38 firms had annual receipts of \$25 million or more.

⁴² U.S. Census Bureau, 2007 NAICS Definitions, “517919 All Other Telecommunications”; <http://www.census.gov/naics/2007/def/ND517919.HTM#N517919>.

⁴³ U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization),” Table 4, NAICS code 517910 (issued Nov. 2005).

⁴⁴ *Id.* An additional 14 firms had annual receipts of \$25 million or more.

⁴⁵ U.S. Census Bureau, 2007 NAICS Definitions, “517210 Wireless Telecommunications Categories (Except Satellite)”; <http://www.census.gov/naics/2007/def/ND517210.HTM#N517210>.

⁴⁶ 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>.

⁴⁷ 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).

⁴⁸ U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization),” Table 5, NAICS code 517211 (issued Nov. 2005).

⁴⁹ *Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with “1000 employees or more.”

⁵⁰ U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization),” Table 5, NAICS code 517212 (issued Nov. 2005).

1,000 employees or more.⁵¹ Thus, we estimate that the majority of wireless firms are small.

23. **Common Carrier Paging.** As noted, the SBA has developed a small business size standard for Wireless Telecommunications Carriers (except Satellite) firms within the broad economic census categories of “Cellular and Other Wireless Telecommunications.”⁵² Since 2007, the Census Bureau has placed wireless firms within this new, broad, economic census category.⁵³ Prior to that time, such firms were within the now-superseded categories of “Paging” and “Cellular and Other Wireless Telecommunications.”⁵⁴ Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees.⁵⁵ Because Census Bureau data are not yet available for the new category, we will estimate small business prevalence using the prior categories and associated data. For the category of Paging, data for 2002 show that there were 807 firms that operated for the entire year.⁵⁶ Of this total, 804 firms had employment of 999 or fewer employees, and three firms had employment of 1,000 employees or more.⁵⁷ For the category of Cellular and Other Wireless Telecommunications, data for 2002 show that there were 1,397 firms that operated for the entire year.⁵⁸ Of this total, 1,378 firms had employment of 999 or fewer employees, and 19 firms had employment of 1,000 employees or more.⁵⁹ Thus, we estimate that the majority of wireless firms are small.

24. In addition, in the *Paging Second Report and Order*, the Commission adopted a size standard for “small businesses” for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.⁶⁰ A small business is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$15 million for the preceding three years.⁶¹ The SBA has approved this definition.⁶² An initial auction of Metropolitan Economic Area

⁵¹ *Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with “1000 employees or more.”

⁵² 13 C.F.R. § 121.201, NAICS code 517212.

⁵³ U.S. Census Bureau, 2007 NAICS Definitions, “517210 Wireless Telecommunications Categories (Except Satellite)”;
<http://www.census.gov/naics/2007/def/ND517210.HTM#N517210>.

⁵⁴ 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>.

⁵⁵ 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).

⁵⁶ U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization,” Table 5, NAICS code 517211 (issued Nov. 2005).

⁵⁷ *Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with “1000 employees or more.”

⁵⁸ U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization,” Table 5, NAICS code 517212 (issued Nov. 2005).

⁵⁹ *Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with “1000 employees or more.”

⁶⁰ *Revision of Part 22 and Part 90 of the Commission’s Rules to Facilitate Future Development of Paging Systems, Second Report and Order*, 12 FCC Rcd 2732, 2811-2812, paras. 178-181 (“*Paging Second Report and Order*”); see also *Revision of Part 22 and Part 90 of the Commission’s Rules to Facilitate Future Development of Paging Systems, Memorandum Opinion and Order on Reconsideration*, 14 FCC Rcd 10030, 10085-10088, paras. 98-107 (1999).

⁶¹ *Paging Second Report and Order*, 12 FCC Rcd at 2811, para. 179.

⁶² See Letter from Aida Alvarez, Administrator, SBA, to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau (“WTB”), FCC (Dec. 2, 1998) (“*Alvarez Letter 1998*”).

("MEA") licenses was conducted in the year 2000. Of the 2,499 licenses auctioned, 985 were sold.⁶³ Fifty-seven companies claiming small business status won 440 licenses.⁶⁴ A subsequent auction of MEA and Economic Area ("EA") licenses was held in the year 2001. Of the 15,514 licenses auctioned, 5,323 were sold.⁶⁵ One hundred thirty-two companies claiming small business status purchased 3,724 licenses. A third auction, consisting of 8,874 licenses in each of 175 EAs and 1,328 licenses in all but three of the 51 MEAs, was held in 2003. Seventy-seven bidders claiming small or very small business status won 2,093 licenses.⁶⁶

25. Currently, there are approximately 74,000 Common Carrier Paging licenses. According to the most recent *Trends in Telephone Service*, 281 carriers reported that they were engaged in the provision of "paging and messaging" services.⁶⁷ Of these, an estimated 279 have 1,500 or fewer employees and two have more than 1,500 employees.⁶⁸ We estimate that the majority of common carrier paging providers would qualify as small entities under the SBA definition.

26. **2.3 GHz Wireless Communications Services.** This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses. The Commission defined "small business" for the wireless communications services ("WCS") auction as an entity with average gross revenues of \$40 million for each of the three preceding years, and a "very small business" as an entity with average gross revenues of \$15 million for each of the three preceding years.⁶⁹ The SBA has approved these definitions.⁷⁰ The Commission auctioned geographic area licenses in the WCS service. In the auction, which was conducted in 1997, there were seven bidders that won 31 licenses that qualified as very small business entities, and one bidder that won one license that qualified as a small business entity.

27. **1670-1675 MHz Services.** An auction for one license in the 1670-1675 MHz band was conducted in 2003. One license was awarded. The winning bidder was not a small entity.

28. **Wireless Telephony.** Wireless telephony includes cellular, personal communications services, and specialized mobile radio telephony carriers. As noted, the SBA has developed a small business size standard for Wireless Telecommunications Carriers (except Satellite).⁷¹ Under the SBA small business size standard, a business is small if it has 1,500 or fewer employees.⁷² According to *Trends in Telephone Service* data, 434 carriers reported that they were engaged in wireless telephony.⁷³

⁶³ See "929 and 931 MHz Paging Auction Closes," Public Notice, 15 FCC Rcd 4858 (WTB 2000).

⁶⁴ See *id.*

⁶⁵ See "Lower and Upper Paging Band Auction Closes," Public Notice, 16 FCC Rcd 21821 (WTB 2002).

⁶⁶ See "Lower and Upper Paging Bands Auction Closes," Public Notice, 18 FCC Rcd 11154 (WTB 2003). The current number of small or very small business entities that hold wireless licenses may differ significantly from the number of such entities that won in spectrum auctions due to assignments and transfers of licenses in the secondary market over time. In addition, some of the same small business entities may have won licenses in more than one auction.

⁶⁷ "Trends in Telephone Service" at Table 5.3.

⁶⁸ "Trends in Telephone Service" at Table 5.3.

⁶⁹ *Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service (WCS)*, Report and Order, 12 FCC Rcd 10785, 10879, para. 194 (1997).

⁷⁰ See *Alvarez Letter 1998*.

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

⁷² *Id.*

⁷³ "Trends in Telephone Service" at Table 5.3.

Of these, an estimated 222 have 1,500 or fewer employees and 212 have more than 1,500 employees.⁷⁴ We therefore estimate that 222 of these are small under the SBA small business size standard.

29. **Broadband Personal Communications Service.** The broadband personal communications services (“PCS”) spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission has created a small business size standard for Blocks C and F as an entity that has average gross revenues of less than \$40 million in the three previous calendar years.⁷⁵ For Block F, an additional small business size standard for “very small business” was added and is defined as an entity that, together with its affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years.⁷⁶ These small business size standards, in the context of broadband PCS auctions, have been approved by the SBA.⁷⁷ No small businesses within the SBA-approved small business size standards bid successfully for licenses in Blocks A and B. There were 90 winning bidders that qualified as small entities in the Block C auctions. A total of 93 “small” and “very small” business bidders won approximately 40 percent of the 1,479 licenses for Blocks D, E, and F.⁷⁸ In 1999, the Commission reaucted 155 C, D, E, and F Block licenses; there were 113 small business winning bidders.⁷⁹

30. In 2001, the Commission completed the auction of 422 C and F Broadband PCS licenses in Auction 35. Of the 35 winning bidders in this auction, 29 qualified as “small” or “very small” businesses.⁸⁰ Subsequent events, concerning Auction 35, including judicial and agency determinations, resulted in a total of 163 C and F Block licenses being available for grant. In 2005, the Commission completed an auction of 188 C block licenses and 21 F block licenses in Auction 58. There were 24 winning bidders for 217 licenses.⁸¹ Of the 24 winning bidders, 16 claimed small business status and won 156 licenses. In 2007, the Commission completed an auction of 33 licenses in the A, C, and F Blocks in Auction 71.⁸² Of the 14 winning bidders, six were designated entities.⁸³ In 2008, the Commission completed an auction of 20 Broadband PCS licenses in the C, D, E and F block licenses in Auction 78.⁸⁴

31. **Advanced Wireless Services.** In 2008, the Commission conducted the auction of

⁷⁴ “Trends in Telephone Service” at Table 5.3.

⁷⁵ See *Amendment of Parts 20 and 24 of the Commission’s Rules – Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap*, Report and Order, 11 FCC Rcd 7824, 7850-7852, paras. 57-60 (1996) (“*PCS Report and Order*”); see also 47 C.F.R. § 24.720(b).

⁷⁶ See *PCS Report and Order*, 11 FCC Rcd at 7852, para. 60.

⁷⁷ See *Alvarez Letter 1998*.

⁷⁸ FCC News, “Broadband PCS, D, E and F Block Auction Closes,” No. 71744 (rel. Jan. 14, 1997).

⁷⁹ See “C, D, E, and F Block Broadband PCS Auction Closes,” *Public Notice*, 14 FCC Rcd 6688 (WTB 1999).

⁸⁰ See “C and F Block Broadband PCS Auction Closes; Winning Bidders Announced,” *Public Notice*, 16 FCC Rcd 2339 (2001).

⁸¹ See “Broadband PCS Spectrum Auction Closes; Winning Bidders Announced for Auction No. 58,” *Public Notice*, 20 FCC Rcd 3703 (2005).

⁸² See “Auction of Broadband PCS Spectrum Licenses Closes; Winning Bidders Announced for Auction No. 71,” *Public Notice*, 22 FCC Rcd 9247 (2007).

⁸³ *Id.*

⁸⁴ See Auction of AWS-1 and Broadband PCS Licenses Rescheduled For August 13, 3008, Notice of Filing Requirements, Minimum Opening Bids, Upfront Payments and Other Procedures For Auction 78, *Public Notice*, 23 FCC Rcd 7496 (2008) (“AWS-1 and Broadband PCS Procedures Public Notice”).

Advanced Wireless Services (“AWS”) licenses.⁸⁵ This auction, which as designated as Auction 78, offered 35 licenses in the AWS 1710-1755 MHz and 2110-2155 MHz bands (“AWS-1”). The AWS-1 licenses were licenses for which there were no winning bids in Auction 66. That same year, the Commission completed Auction 78. A bidder with attributed average annual gross revenues that exceeded \$15 million and did not exceed \$40 million for the preceding three years (“small business”) received a 15 percent discount on its winning bid. A bidder with attributed average annual gross revenues that did not exceed \$15 million for the preceding three years (“very small business”) received a 25 percent discount on its winning bid. A bidder that had combined total assets of less than \$500 million and combined gross revenues of less than \$125 million in each of the last two years qualified for entrepreneur status.⁸⁶ Four winning bidders that identified themselves as very small businesses won 17 licenses.⁸⁷ Three of the winning bidders that identified themselves as a small business won five licenses. Additionally, one other winning bidder that qualified for entrepreneur status won 2 licenses.

32. **Narrowband Personal Communications Services.** In 1994, the Commission conducted an auction for Narrowband PCS licenses. A second auction was also conducted later in 1994. For purposes of the first two Narrowband PCS auctions, “small businesses” were entities with average gross revenues for the prior three calendar years of \$40 million or less.⁸⁸ Through these auctions, the Commission awarded a total of 41 licenses, 11 of which were obtained by four small businesses.⁸⁹ To ensure meaningful participation by small business entities in future auctions, the Commission adopted a two-tiered small business size standard in the Narrowband PCS Second Report and Order.⁹⁰ A “small business” is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than \$40 million.⁹¹ A “very small business” is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than \$15 million.⁹² The SBA has approved these small business size standards.⁹³ A third auction was conducted in 2001. Here, five bidders won 317 (Metropolitan Trading Areas and nationwide) licenses.⁹⁴ Three of these claimed status as a small or very small entity and won 311 licenses.

⁸⁵ See AWS-1 and Broadband PCS Procedures Public Notice, 23 FCC Rcd 7496. Auction 78 also included an auction of Broadband PCS licenses.

⁸⁶ *Id.* at 23 FCC Rcd at 7521-22.

⁸⁷ See “Auction of AWS-1 and Broadband PCS Licenses Closes, Winning Bidders Announced for Auction 78, Down Payments Due September 9, 2008, FCC Forms 601 and 602 Due September 9, 2008, Final Payments Due September 23, 2008, Ten-Day Petition to Deny Period”, *Public Notice*, 23 FCC Rcd 12749-65 (2008).

⁸⁸ *Implementation of Section 309(j) of the Communications Act – Competitive Bidding Narrowband PCS*, Third Memorandum Opinion and Order and Further Notice of Proposed Rulemaking, 10 FCC Rcd 175, 196, para. 46 (1994).

⁸⁹ See “Announcing the High Bidders in the Auction of ten Nationwide Narrowband PCS Licenses, Winning Bids Total \$617,006,674,” *Public Notice*, PNWL 94-004 (rel. Aug. 2, 1994); “Announcing the High Bidders in the Auction of 30 Regional Narrowband PCS Licenses; Winning Bids Total \$490,901,787,” *Public Notice*, PNWL 94-27 (rel. Nov. 9, 1994).

⁹⁰ *Amendment of the Commission’s Rules to Establish New Personal Communications Services, Narrowband PCS*, Second Report and Order and Second Further Notice of Proposed Rule Making, 15 FCC Rcd 10456, 10476, para. 40 (2000) (“*Narrowband PCS Second Report and Order*”).

⁹¹ *Narrowband PCS Second Report and Order*, 15 FCC Rcd at 10476, para. 40.

⁹² *Id.*

⁹³ See *Alvarez Letter 1998*.

⁹⁴ See “Narrowband PCS Auction Closes,” *Public Notice*, 16 FCC Rcd 18663 (WTB 2001).

33. **700 MHz Band Licenses.** The Commission previously adopted criteria for defining three groups of small businesses for purposes of determining their eligibility for special provisions such as bidding credits.⁹⁵ The Commission defined a “small business” as an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$40 million for the preceding three years.⁹⁶ A “very small business” is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$15 million for the preceding three years.⁹⁷ Additionally, the lower 700 MHz Service had a third category of small business status for Metropolitan/Rural Service Area (“MSA/RSA”) licenses. The third category is “entrepreneur,” which is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$3 million for the preceding three years.⁹⁸ The SBA approved these small size standards.⁹⁹ The Commission conducted an auction in 2002 of 740 licenses (one license in each of the 734 MSAs/RSAs and one license in each of the six Economic Area Groupings (EAGs)). Of the 740 licenses available for auction, 484 licenses were sold to 102 winning bidders. Seventy-two of the winning bidders claimed small business, very small business or entrepreneur status and won a total of 329 licenses.¹⁰⁰ The Commission conducted a second auction in 2003 that included 256 licenses: 5 EAG licenses and 476 Cellular Market Area licenses.¹⁰¹ Seventeen winning bidders claimed small or very small business status and won 60 licenses, and nine winning bidders claimed entrepreneur status and won 154 licenses.¹⁰² In 2005, the Commission completed an auction of 5 licenses in the lower 700 MHz band (Auction 60). There were three winning bidders for five licenses. All three winning bidders claimed small business status.

34. In 2007, the Commission adopted the *700 MHz Second Report and Order*.¹⁰³ The *Order* revised the band plan for the commercial (including Guard Band) and public safety spectrum, adopted services rules, including stringent build-out requirements, an open platform requirement on the C Block, and a requirement on the D Block licensee to construct and operate a nationwide, interoperable wireless broadband network for public safety users. In 2008, the Commission commenced Auction 73 which offered all available, commercial 700 MHz Band licenses (1,099 licenses) for bidding using the Commission’s standard simultaneous multiple-round (“SMR”) auction format for the A, B, D, and E

⁹⁵ See *Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59)*, Report and Order, 17 FCC Rcd 1022 (2002) (“*Channels 52-59 Report and Order*”).

⁹⁶ See *Channels 52-59 Report and Order*, 17 FCC Rcd at 1087-88, para. 172.

⁹⁷ See *id.*

⁹⁸ See *id.*, 17 FCC Rcd at 1088, para. 173.

⁹⁹ See Letter from Aida Alvarez, Administrator, SBA, to Thomas Sugrue, Chief, WTB, FCC (Aug. 10, 1999) (“*Alvarez Letter 1999*”).

¹⁰⁰ See “Lower 700 MHz Band Auction Closes,” *Public Notice*, 17 FCC Rcd 17272 (WTB 2002).

¹⁰¹ See “Lower 700 MHz Band Auction Closes,” *Public Notice*, 18 FCC Rcd 11873 (WTB 2003).

¹⁰² See *id.*

¹⁰³ Service Rules for the 698-746, 747-762 and 777-792 MHz Band, WT Docket No. 06-150, *Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, CC Docket No. 94-102, Section 68.4(a) of the Commission’s Rules Governing Hearing Aid-Compatible Telephone, WT Docket No. 01-309, *Biennial Regulatory Review – Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services*, WT Docket No. 03-264, *Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission’s Rules*, WT Docket No. 06-169, *Implementing a Nationwide, Broadband Interoperable Public Safety Network in the 700 MHz Band*, PS Docket No. 06-229, *Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Communications Requirements Through the Year 2010*, WT Docket No. 96-86, *Second Report and Order*, FCC 07-132 (2007) (“*700 MHz Second Report and Order*”), 22 FCC Rcd 15289 (2007).

block licenses and an SMR auction design with hierarchical package bidding (“HPB”) for the C Block licenses. Later in 2008, the Commission concluded Auction 73.¹⁰⁴ A bidder with attributed average annual gross revenues that did not exceed \$15 million for the preceding three years (very small business) qualified for a 25 percent discount on its winning bids. A bidder with attributed average annual gross revenues that exceeded \$15 million, but did not exceed \$40 million for the preceding three years, qualified for a 15 percent discount on its winning bids. There were 36 winning bidders (who won 330 of the 1,090 licenses won) that identified themselves as very small businesses. There were 20 winning bidders that identified themselves as a small business that won 49 of the 1,090 licenses won.¹⁰⁵ The provisionally winning bids for the A, B, C, and E Block licenses exceeded the aggregate reserve prices for those blocks. However, the provisionally winning bid for the D Block license did not meet the applicable reserve price and thus did not become a winning bid.¹⁰⁶

35. **700 MHz Guard Band Licenses.** In the 700 MHz Guard Band Order, the Commission adopted size standards for “small businesses” and “very small businesses” for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.¹⁰⁷ A small business in this service is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$40 million for the preceding three years.¹⁰⁸ Additionally, a very small business is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$15 million for the preceding three years.¹⁰⁹ SBA approval of these definitions is not required.¹¹⁰ In 2000, the Commission conducted an auction of 52 Major Economic Area (“MEA”) licenses.¹¹¹ Of the 104 licenses auctioned, 96 licenses were sold to nine bidders. Five of these bidders were small businesses that won a total of 26 licenses. A second auction of 700 MHz Guard Band licenses commenced and closed in 2001. All eight of the licenses auctioned were sold to three bidders. One of these bidders was a small business that won a total of two licenses.¹¹² Subsequently, in the *700 MHz Second Report and Order*, the Commission reorganized the licenses pursuant to an agreement among most of the licensees, resulting in a spectral relocation of the first set of paired spectrum block licenses, and an elimination of the second set of paired spectrum block licenses (many of which were already vacant, reclaimed by the Commission from Nextel).¹¹³ A single licensee that did not participate in the

¹⁰⁴ Auction of 700 MHz Band Licenses Closes, Winning Bidders Announced for Auction 73, Down Payments Due April 3, 2008, FCC Forms 601 and 602 April 3, 2008, Final Payment Due April 17, 2008, Ten-Day Petition to Deny Period, *Public Notice*, 23 FCC Rcd 4572 (2008).

¹⁰⁵ *Id.* 23 FCC Rcd at 4572-73.

¹⁰⁶ *Id.*

¹⁰⁷ See *Service Rules for the 746-764 MHz Bands, and Revisions to Part 27 of the Commission’s Rules*, Second Report and Order, 15 FCC Rcd 5299 (2000) (“746-764 MHz Band Second Report and Order”).

¹⁰⁸ See *746-764 MHz Band Second Report and Order*, 15 FCC Rcd at 5343, para. 108.

¹⁰⁹ See *id.*

¹¹⁰ See *id.*, 15 FCC Rcd 5299, 5343, para. 108 n.246 (for the 746-764 MHz and 776-794 MHz bands, the Commission is exempt from 15 U.S.C. § 632, which requires Federal agencies to obtain SBA approval before adopting small business size standards).

¹¹¹ See “700 MHz Guard Bands Auction Closes: Winning Bidders Announced,” *Public Notice*, 15 FCC Rcd 18026 (2000).

¹¹² See “700 MHz Guard Bands Auction Closes: Winning Bidders Announced,” *Public Notice*, 16 FCC Rcd 4590 (WTB 2001).

¹¹³ See *In the Matter of Service Rules for the 698-746, 747-762 and 777-792 MHz Bands*, WT Docket 06-150, *Second Report and Order*, 22 FCC Rcd 15289, 15339-15344 ¶¶ 118-134 (2007) (*700 MHz Second Report and Order*).

agreement was grandfathered in the initial spectral location for its two licenses in the second set of paired spectrum blocks.¹¹⁴ Accordingly, at this time there are 54 licenses in the 700 MHz Guard Bands.

36. **Specialized Mobile Radio.** The Commission awards “small entity” bidding credits in auctions for Specialized Mobile Radio (SMR) geographic area licenses in the 800 MHz and 900 MHz bands to firms that had revenues of no more than \$15 million in each of the three previous calendar years.¹¹⁵ The Commission awards “very small entity” bidding credits to firms that had revenues of no more than \$3 million in each of the three previous calendar years.¹¹⁶ The SBA has approved these small business size standards for the 900 MHz Service.¹¹⁷ The Commission has held auctions for geographic area licenses in the 800 MHz and 900 MHz bands. The 900 MHz SMR auction was completed in 1996. Sixty bidders claiming that they qualified as small businesses under the \$15 million size standard won 263 geographic area licenses in the 900 MHz SMR band. The 800 MHz SMR auction for the upper 200 channels was conducted in 1997. Ten bidders claiming that they qualified as small businesses under the \$15 million size standard won 38 geographic area licenses for the upper 200 channels in the 800 MHz SMR band.¹¹⁸ A second auction for the 800 MHz band was conducted in 2002 and included 23 BEA licenses. One bidder claiming small business status won five licenses.¹¹⁹

37. The auction of the 1,053 800 MHz SMR geographic area licenses for the General Category channels was conducted in 2000. Eleven bidders won 108 geographic area licenses for the General Category channels in the 800 MHz SMR band qualified as small businesses under the \$15 million size standard.¹²⁰ In an auction completed in 2000, a total of 2,800 Economic Area licenses in the lower 80 channels of the 800 MHz SMR service were awarded.¹²¹ Of the 22 winning bidders, 19 claimed small business status and won 129 licenses. Thus, combining all three auctions, 40 winning bidders for geographic licenses in the 800 MHz SMR band claimed status as small business.

38. In addition, there are numerous incumbent site-by-site SMR licensees and licensees with extended implementation authorizations in the 800 and 900 MHz bands. We do not know how many firms provide 800 MHz or 900 MHz geographic area SMR pursuant to extended implementation authorizations, nor how many of these providers have annual revenues of no more than \$15 million. One firm has over \$15 million in revenues. In addition, we do not know how many of these firms have 1500 or fewer employees.¹²² We assume, for purposes of this analysis, that all of the remaining existing extended implementation authorizations are held by small entities.

39. **220 MHz Radio Service – Phase I Licensees.** The 220 MHz service has both Phase I and Phase II licenses. Phase I licensing was conducted by lotteries in 1992 and 1993. There are approximately 1,515 such non-nationwide licensees and four nationwide licensees currently authorized to operate in the 220 MHz band. The Commission has not developed a definition of small entities

¹¹⁴ *Id.*

¹¹⁵ 47 C.F.R. § 90.814(b)(1).

¹¹⁶ 47 C.F.R. § 90.814(b)(1).

¹¹⁷ *See Alvarez Letter 1999.*

¹¹⁸ *See* “Correction to Public Notice DA 96-586 ‘FCC Announces Winning Bidders in the Auction of 1020 Licenses to Provide 900 MHz SMR in Major Trading Areas,’” *Public Notice*, 18 FCC Rcd 18367 (WTB 1996).

¹¹⁹ *See* “Multi-Radio Service Auction Closes,” *Public Notice*, 17 FCC Rcd 1446 (WTB 2002).

¹²⁰ *See* “800 MHz Specialized Mobile Radio (SMR) Service General Category (851-854 MHz) and Upper Band (861-865 MHz) Auction Closes; Winning Bidders Announced,” *Public Notice*, 15 FCC Rcd 17162 (2000).

¹²¹ *See*, “800 MHz SMR Service Lower 80 Channels Auction Closes; Winning Bidders Announced,” *Public Notice*, 16 FCC Rcd 1736 (2000).

¹²² *See generally* 13 C.F.R. § 121.201, NAICS code 517210.

specifically applicable to such incumbent 220 MHz Phase I licensees. To estimate the number of such licensees that are small businesses, we apply the small business size standard under the SBA rules applicable to Wireless Telecommunications Carriers (except Satellite).¹²³ This category provides that a small business is a wireless company employing no more than 1,500 persons.¹²⁴ The Commission estimates that most such licensees are small businesses under the SBA's small business standard.

40. **220 MHz Radio Service – Phase II Licensees.** The 220 MHz service has both Phase I and Phase II licenses. The Phase II 220 MHz service is a new service, and is subject to spectrum auctions. In the 220 MHz Third Report and Order, the Commission adopted a small business size standard for defining “small” and “very small” businesses for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.¹²⁵ This small business standard indicates that a “small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$15 million for the preceding three years.¹²⁶ A “very small business” is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that do not exceed \$3 million for the preceding three years.¹²⁷ The SBA has approved these small size standards.¹²⁸ Auctions of Phase II licenses commenced on and closed in 1998.¹²⁹ In the first auction, 908 licenses were auctioned in three different-sized geographic areas: three nationwide licenses, 30 Regional Economic Area Group (“EAG”) Licenses, and 875 Economic Area (EA) Licenses. Of the 908 licenses auctioned, 693 were sold.¹³⁰ Thirty-nine small businesses won 373 licenses in the first 220 MHz auction. A second auction included 225 licenses: 216 EA licenses and 9 EAG licenses. Fourteen companies claiming small business status won 158 licenses.¹³¹ A third auction included four licenses: 2 BEA licenses and 2 EAG licenses in the 220 MHz Service. No small or very small business won any of these licenses.¹³² In 2007, the Commission conducted a fourth auction of the 220 MHz licenses.¹³³ Bidding credits were offered to small businesses. A bidder with attributed average annual gross revenues that exceeded \$3 million and did not exceed \$15 million for the preceding three years (“small business”) received a 25 percent discount on its winning bid. A bidder with attributed average annual gross revenues that did not exceed \$3 million for the preceding three years received a 35 percent discount on its winning bid (“very small business”). Auction 72, which offered 94 Phase II 220 MHz

¹²³ *Id.*

¹²⁴ *Id.*

¹²⁵ *Amendment of Part 90 of the Commission's Rules to Provide For the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service*, Third Report and Order, 12 FCC Rcd 10943, 11068-70, paras. 291-295 (1997).

¹²⁶ *Id.* at 11068, para. 291.

¹²⁷ *Id.*

¹²⁸ See Letter from Aida Alvarez, Administrator, SBA, to Daniel Phythyon, Chief, WTB, FCC (Jan. 6, 1998) (“*Alvarez to Phythyon Letter 1998*”).

¹²⁹ See generally “220 MHz Service Auction Closes,” *Public Notice*, 14 FCC Rcd 605 (1998).

¹³⁰ See “FCC Announces It is Prepared to Grant 654 Phase II 220 MHz Licenses After Final Payment is Made,” *Public Notice*, 14 FCC Rcd 1085 (1999).

¹³¹ See “Phase II 220 MHz Service Spectrum Auction Closes,” *Public Notice*, 14 FCC Rcd 11218 (1999).

¹³² See “Multi-Radio Service Auction Closes,” *Public Notice*, 17 FCC Rcd 1446 (2002).

¹³³ See “Auction of Phase II 220 MHz Service Spectrum Scheduled for June 20, 2007, Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments and Other Procedures for Auction 72,” *Public Notice*, 22 FCC Rcd 3404 (2007).

Service licenses, concluded in 2007.¹³⁴ In this auction, five winning bidders won a total of 76 licenses. Two winning bidders identified themselves as very small businesses won 56 of the 76 licenses. One of the winning bidders that identified themselves as a small business won 5 of the 76 licenses won.

41. **Cellular Radiotelephone Service.** Auction 77 was held to resolve one group of mutually exclusive applications for Cellular Radiotelephone Service licenses for unserved areas in New Mexico.¹³⁵ Bidding credits for designated entities were not available in Auction 77.¹³⁶ In 2008, the Commission completed the closed auction of one unserved service area in the Cellular Radiotelephone Service, designated as Auction 77. Auction 77 concluded with one provisionally winning bid for the unserved area totaling \$25,002.¹³⁷

42. **Private Land Mobile Radio (“PLMR”).** PLMR systems serve an essential role in a range of industrial, business, land transportation, and public safety activities. These radios are used by companies of all sizes operating in all U.S. business categories, and are often used in support of the licensee’s primary (non-telecommunications) business operations. For the purpose of determining whether a licensee of a PLMR system is a small business as defined by the SBA, we use the broad census category, Wireless Telecommunications Carriers (except Satellite). This definition provides that a small entity is any such entity employing no more than 1,500 persons.¹³⁸ The Commission does not require PLMR licensees to disclose information about number of employees, so the Commission does not have information that could be used to determine how many PLMR licensees constitute small entities under this definition. We note that PLMR licensees generally use the licensed facilities in support of other business activities, and therefore, it would also be helpful to assess PLMR licensees under the standards applied to the particular industry subsector to which the licensee belongs.¹³⁹

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

44. **Fixed Microwave Services.** Fixed microwave services include common carrier,¹⁴⁰ private operational-fixed,¹⁴¹ and broadcast auxiliary radio services.¹⁴² At present, there are approximately

¹³⁴ See “Auction of Phase II 220 MHz Service Spectrum Licenses Closes, Winning Bidders Announced for Auction 72, Down Payments due July 18, 2007, FCC Forms 601 and 602 due July 18, 2007, Final Payments due August 1, 2007, Ten-Day Petition to Deny Period, *Public Notice*, 22 FCC Rcd 11573 (2007).

¹³⁵ See Closed Auction of Licenses for Cellular Unserved Service Area Scheduled for June 17, 2008, Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments, and Other Procedures for Auction 77, *Public Notice*, 23 FCC Rcd 6670 (2008).

¹³⁶ *Id.* at 6685.

¹³⁷ See Auction of Cellular Unserved Service Area License Closes, Winning Bidder Announced for Auction 77, Down Payment due July 2, 2008, Final Payment due July 17, 2008, *Public Notice*, 23 FCC Rcd 9501 (2008).

¹³⁸ See 13 C.F.R. § 121.201, NAICS code 517210.

¹³⁹ See generally 13 C.F.R. § 121.201.

¹⁴⁰ See 47 C.F.R. §§ 101 *et seq.* for common carrier fixed microwave services (except Multipoint Distribution Service).

¹⁴¹ Persons eligible under parts 80 and 90 of the Commission’s Rules can use Private Operational-Fixed Microwave services. See 47 C.F.R. Parts 80 and 90. Stations in this service are called operational-fixed to distinguish them from common carrier and public fixed stations. Only the licensee may use the operational-fixed station, and only for communications related to the licensee’s commercial, industrial, or safety operations.

22,015 common carrier fixed licensees and 61,670 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services. The Commission has not created a size standard for a small business specifically with respect to fixed microwave services. For purposes of this analysis, the Commission uses the SBA small business size standard for the category Wireless Telecommunications Carriers (except Satellite), which is 1,500 or fewer employees.¹⁴³ The Commission does not have data specifying the number of these licensees that have no more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of fixed microwave service licensees that would qualify as small business concerns under the SBA's small business size standard. Consequently, the Commission estimates that there are 22,015 or fewer common carrier fixed licensees and 61,670 or fewer private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services that may be small and may be affected by the rules and policies proposed herein. We note, however, that the common carrier microwave fixed licensee category includes some large entities.

45. **39 GHz Service.** The Commission created a special small business size standard for 39 GHz licenses – an entity that has average gross revenues of \$40 million or less in the three previous calendar years.¹⁴⁴ An additional size standard for “very small business” is: an entity that, together with affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years.¹⁴⁵ The SBA has approved these small business size standards.¹⁴⁶ The auction of the 2,173, 39 GHz licenses, began and closed in 2000. The 18 bidders who claimed small business status won 849 licenses.

46. **Local Multipoint Distribution Service.** Local Multipoint Distribution Service (“LMDS”) is a fixed broadband point-to-multipoint microwave service that provides for two-way video telecommunications.¹⁴⁷ The auction of the 986 LMDS licenses began and closed in 1998. The Commission established a small business size standard for LMDS licenses as an entity that has average gross revenues of less than \$40 million in the three previous calendar years.¹⁴⁸ An additional small business size standard for “very small business” was added as an entity that, together with its affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years.¹⁴⁹ The

(...continued from previous page)

¹⁴² Auxiliary Microwave Service is governed by Part 74 of Title 47 of the Commission's Rules. See 47 C.F.R. Part 74. This service is available to licensees of broadcast stations and to broadcast and cable network entities. Broadcast auxiliary microwave stations are used for relaying broadcast television signals from the studio to the transmitter, or between two points such as a main studio and an auxiliary studio. The service also includes mobile television pickups, which relay signals from a remote location back to the studio.

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

¹⁴⁴ See *Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands*, ET Docket No. 95-183, Report and Order, 12 FCC Rcd 18600 (1997).

¹⁴⁵ *Id.*

¹⁴⁶ See Letter from Aida Alvarez, Administrator, SBA, to Kathleen O'Brien Ham, Chief, Auctions and Industry Analysis Division, WTB, FCC (Feb. 4, 1998); see Letter from Hector Barreto, Administrator, SBA, to Margaret Wiener, Chief, Auctions and Industry Analysis Division, WTB, FCC (Jan. 18, 2002).

¹⁴⁷ See *Rulemaking to Amend Parts 1, 2, 21, 25, of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, Reallocate the 29.5-30.5 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services*, Second Report and Order, Order on Reconsideration, and Fifth Notice of Proposed Rule Making, 12 FCC Rcd 12545, 12689-90, para. 348 (1997) (“*LMDS Second Report and Order*”).

¹⁴⁸ See *LMDS Second Report and Order*, 12 FCC Rcd at 12689-90, para. 348.

¹⁴⁹ See *id.*

SBA has approved these small business size standards in the context of LMDS auctions.¹⁵⁰ There were 93 winning bidders that qualified as small entities in the LMDS auctions. A total of 93 small and very small business bidders won approximately 277 A Block licenses and 387 B Block licenses. In 1999, the Commission re-auctioned 161 licenses; there were 32 small and very small businesses winning that won 119 licenses.

47. **218-219 MHz Service.** The first auction of 218-219 MHz (previously referred to as the Interactive and Video Data Service or IVDS) spectrum resulted in 178 entities winning licenses for 594 Metropolitan Statistical Areas (“MSAs”).¹⁵¹ Of the 594 licenses, 567 were won by 167 entities qualifying as a small business. For that auction, the Commission defined a small business as an entity that, together with its affiliates, has no more than a \$6 million net worth and, after federal income taxes (excluding any carry over losses), has no more than \$2 million in annual profits each year for the previous two years.¹⁵² In the *218-219 MHz Report and Order and Memorandum Opinion and Order*, we defined a small business as an entity that, together with its affiliates and persons or entities that hold interests in such an entity and their affiliates, has average annual gross revenues not exceeding \$15 million for the preceding three years.¹⁵³ A very small business is defined as an entity that, together with its affiliates and persons or entities that hold interests in such an entity and its affiliates, has average annual gross revenues not exceeding \$3 million for the preceding three years.¹⁵⁴ The SBA has approved of these definitions.¹⁵⁵ A subsequent auction is not yet scheduled. Given the success of small businesses in the previous auction, and the prevalence of small businesses in the subscription television services and message communications industries, we assume for purposes of this analysis that in future auctions, many, and perhaps most, of the licenses might be awarded to small businesses.

48. **Location and Monitoring Service (“LMS”).** Multilateration LMS systems use non-voice radio techniques to determine the location and status of mobile radio units. For purposes of auctioning LMS licenses, the Commission has defined “small business” as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding \$15 million.¹⁵⁶ A “very small business” is defined as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding \$3 million.¹⁵⁷ These definitions have been approved by the SBA.¹⁵⁸ An auction for LMS licenses commenced and closed in 1999. Of the 528 licenses auctioned, 289 licenses were sold to four small businesses.

¹⁵⁰ See Alvarez to Phythyon Letter 1998.

¹⁵¹ See “Interactive Video and Data Service (IVDS) Applications Accepted for Filing,” Public Notice, 9 FCC Rcd 6227 (1994).

¹⁵² *Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, Fourth Report and Order, 9 FCC Rcd 2330 (1994).

¹⁵³ *Amendment of Part 95 of the Commission’s Rules to Provide Regulatory Flexibility in the 218-219 MHz Service*, Report and Order and Memorandum Opinion and Order, 15 FCC Rcd 1497 (1999).

¹⁵⁴ *Id.*

¹⁵⁵ See Alvarez to Phythyon Letter 1998.

¹⁵⁶ *Amendment of Part 90 of the Commission’s Rules to Adopt Regulations for Automatic Vehicle Monitoring Systems*, Second Report and Order, 13 FCC Rcd 15182, 15192, para. 20 (1998) (“*Automatic Vehicle Monitoring Systems Second Report and Order*”); see also 47 C.F.R. § 90.1103.

¹⁵⁷ *Automatic Vehicle Monitoring Systems Second Report and Order*, 13 FCC Rcd at 15192, para. 20; see also 47 C.F.R. § 90.1103.

¹⁵⁸ See Alvarez Letter 1998.

49. **Rural Radiotelephone Service.** The Commission has not adopted a size standard for small businesses specific to the Rural Radiotelephone Service.¹⁵⁹ A significant subset of the Rural Radiotelephone Service is the Basic Exchange Telephone Radio System (“BETRS”).¹⁶⁰ In the present context, we will use the SBA’s small business size standard applicable to Wireless Telecommunications Carriers (except Satellite), *i.e.*, an entity employing no more than 1,500 persons.¹⁶¹ There are approximately 1,000 licensees in the Rural Radiotelephone Service, and the Commission estimates that there are 1,000 or fewer small entity licensees in the Rural Radiotelephone Service that may be affected by the rules and policies proposed herein.

50. **Air-Ground Radiotelephone Service.**¹⁶² The Commission has previously used the SBA’s small business definition applicable to Wireless Telecommunications Carriers (except Satellite), *i.e.*, an entity employing no more than 1,500 persons.¹⁶³ There are approximately 100 licensees in the Air-Ground Radiotelephone Service, and under that definition, we estimate that almost all of them qualify as small entities under the SBA definition. For purposes of assigning Air-Ground Radiotelephone Service licenses through competitive bidding, the Commission has defined “small business” as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding \$40 million.¹⁶⁴ A “very small business” is defined as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding \$15 million.¹⁶⁵ These definitions were approved by the SBA.¹⁶⁶ In 2006, the Commission completed an auction of nationwide commercial Air-Ground Radiotelephone Service licenses in the 800 MHz band (Auction 65). Later in 2006, the auction closed with two winning bidders winning two Air-Ground Radiotelephone Services licenses. Neither of the winning bidders claimed small business status.

51. **Aviation and Marine Radio Services.** There are approximately 26,162 aviation, 34,555 marine (ship), and 3,296 marine (coast) licensees.¹⁶⁷ The Commission has not developed a small business size standard specifically applicable to all licensees. For purposes of this analysis, we will use the SBA small business size standard for the category Wireless Telecommunications Carriers (except Satellite), which is 1,500 or fewer employees.¹⁶⁸ We are unable to determine how many of those licensed fall under this standard. For purposes of our evaluations in this analysis, we estimate that there are up to

¹⁵⁹ The service is defined in § 22.99 of the Commission’s Rules, 47 C.F.R. § 22.99.

¹⁶⁰ BETRS is defined in §§ 22.757 and 22.759 of the Commission’s Rules, 47 C.F.R. §§ 22.757 and 22.759.

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

¹⁶² The service is defined in § 22.99 of the Commission’s Rules, 47 C.F.R. § 22.99.

¹⁶³ 13 C.F.R. § 121.201, NAICS codes 517210.

¹⁶⁴ *Amendment of Part 22 of the Commission’s Rules to Benefit the Consumers of Air-Ground Telecommunications Services, Biennial Regulatory Review – Amendment of Parts 1, 22, and 90 of the Commission’s Rules, Amendment of Parts 1 and 22 of the Commission’s Rules to Adopt Competitive Bidding Rules for Commercial and General Aviation Air-Ground Radiotelephone Service*, WT Docket Nos. 03-103 and 05-42, Order on Reconsideration and Report and Order, 20 FCC Rcd 19663, paras. 28-42 (2005).

¹⁶⁵ *Id.*

¹⁶⁶ See Letter from Hector V. Barreto, Administrator, SBA, to Gary D. Michaels, Deputy Chief, Auctions and Spectrum Access Division, WTB, FCC (Sept. 19, 2005).

¹⁶⁷ Vessels that are not required by law to carry a radio and do not make international voyages or communications are not required to obtain an individual license. See Amendment of Parts 80 and 87 of the Commission’s Rules to Permit Operation of Certain Domestic Ship and Aircraft Radio Stations Without Individual Licenses, *Report and Order*, WT Docket No. 96-82, 11 FCC Rcd 14849 (1996).

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

approximately 62,969 licensees that are small businesses under the SBA standard.¹⁶⁹ In 1998, the Commission held an auction of 42 VHF Public Coast licenses in the 157.1875-157.4500 MHz (ship transmit) and 161.775-162.0125 MHz (coast transmit) bands. For this auction, the Commission defined a “small” business as an entity that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed \$15 million dollars. In addition, a “very small” business is one that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed \$3 million dollars.¹⁷⁰ Further, the Commission made available Automated Maritime Telecommunications System (“AMTS”) licenses in Auctions 57 and 61.¹⁷¹ Winning bidders could claim status as a very small business or a very small business. A very small business for this service is defined as an entity with attributed average annual gross revenues that do not exceed \$3 million for the preceding three years, and a small business is defined as an entity with attributed average annual gross revenues of more than \$3 million but less than \$15 million for the preceding three years.¹⁷² Three of the winning bidders in Auction 57 qualified as small or very small businesses, while three winning entities in Auction 61 qualified as very small businesses.

52. **Offshore Radiotelephone Service.** This service operates on several ultra high frequencies (“UHF”) television broadcast channels that are not used for television broadcasting in the coastal areas of states bordering the Gulf of Mexico.¹⁷³ There is presently 1 licensee in this service. We do not have information whether that licensee would qualify as small under the SBA’s small business size standard for Wireless Telecommunications Carriers (except Satellite) services.¹⁷⁴ Under that SBA small business size standard, a business is small if it has 1,500 or fewer employees.¹⁷⁵

53. **Multiple Address Systems (“MAS”).** Entities using MAS spectrum, in general, fall into two categories: (1) those using the spectrum for profit-based uses, and (2) those using the spectrum for private internal uses. With respect to the first category, the Commission defines “small entity” for MAS licenses as an entity that has average gross revenues of less than \$15 million in the three previous calendar years.¹⁷⁶ “Very small business” is defined as an entity that, together with its affiliates, has average gross revenues of not more than \$3 million for the preceding three calendar years.¹⁷⁷ The SBA has approved of these definitions.¹⁷⁸ The majority of these entities will most likely be licensed in bands where the Commission has implemented a geographic area licensing approach that would require the use of competitive bidding procedures to resolve mutually exclusive applications. The Commission’s

¹⁶⁹ A licensee may have a license in more than one category.

¹⁷⁰ *Amendment of the Commission’s Rules Concerning Maritime Communications*, PR Docket No. 92-257, Third Report and Order and Memorandum Opinion and Order, 13 FCC Rcd 19853 (1998).

¹⁷¹ See “*Automated Maritime Telecommunications System Spectrum Auction Scheduled for September 15, 2004, Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments and Other Auction Procedures*,” Public Notice, 19 FCC Rcd 9518 (WTB 2004); “*Auction of Automated Maritime Telecommunications System Licenses Scheduled for August 3, 2005, Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments and Other Auction Procedures for Auction No. 61*,” Public Notice, 20 FCC Rcd 7811 (WTB 2005).

¹⁷² 47 C.F.R. § 80.1252.

¹⁷³ This service is governed by Subpart I of Part 22 of the Commission’s Rules. See 47 C.F.R. §§ 22.1001-22.1037.

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

¹⁷⁵ *Id.*

¹⁷⁶ See *Amendment of the Commission’s Rules Regarding Multiple Address Systems*, Report and Order, 15 FCC Rcd 11956, 12008, para. 123 (2000).

¹⁷⁷ *Id.*

¹⁷⁸ See *Alvarez Letter 1999*.

licensing database indicates that, as of March 5, 2010, there were over 11,500 MAS station authorizations. In addition, an auction for 5,104 MAS licenses in 176 EAs was conducted in 2001.¹⁷⁹ Seven winning bidders claimed status as small or very small businesses and won 611 licenses. In 2005, the Commission completed an auction (Auction 59) of 4,226 MAS licenses in the Fixed Microwave Services from the 928/959 and 932/941 MHz bands. Twenty-six winning bidders won a total of 2,323 licenses. Of the 26 winning bidders in this auction, five claimed small business status and won 1,891 licenses.

54. With respect to the second category, which consists of entities that use, or seek to use, MAS spectrum to accommodate internal communications needs, we note that MAS serves an essential role in a range of industrial, safety, business, and land transportation activities. MAS radios are used by companies of all sizes, operating in virtually all U.S. business categories, and by all types of public safety entities. For such private internal users, the small business size standard developed by the SBA would be more appropriate. The applicable size standard in this instance is that of Wireless Telecommunications Carriers (except Satellite). This definition provides that a small entity is any such entity employing no more than 1,500 persons.¹⁸⁰ The Commission's licensing database indicates that, as of January 20, 1999, of the 8,670 total MAS station authorizations, 8,410 authorizations were for private radio service, and of these, 1,433 were for private land mobile radio service.

55. **1.4 GHz Band Licensees.** The Commission conducted an auction of 64 1.4 GHz band licenses¹⁸¹ in 2007.¹⁸² In that auction, the Commission defined "small business" as an entity that, together with its affiliates and controlling interests, had average gross revenues that exceed \$15 million but do not exceed \$40 million for the preceding three years, and a "very small business" as an entity that, together with its affiliates and controlling interests, has had average annual gross revenues not exceeding \$15 million for the preceding three years.¹⁸³ Neither of the two winning bidders sought designated entity status.¹⁸⁴

56. **Incumbent 24 GHz Licensees.** This analysis may affect incumbent licensees who were relocated to the 24 GHz band from the 18 GHz band, and applicants who wish to provide services in the 24 GHz band. The applicable SBA small business size standard is that of Wireless Telecommunications Carriers (except Satellite). This category provides that such a company is small if it employs no more than 1,500 persons.¹⁸⁵ The broader census data notwithstanding, we believe that there are only two licensees in the 24 GHz band that were relocated from the 18 GHz band, Teligent¹⁸⁶ and TRW, Inc. It is our understanding that Teligent and its related companies have fewer than 1,500 employees, though this may change in the future. TRW is not a small entity. There are approximately 122 licensees in the Rural Radiotelephone Service, and the Commission estimates that there are 122 or fewer small entity licensees in the Rural Radiotelephone Service that may be affected by the rules and policies proposed herein.

¹⁷⁹ See "Multiple Address Systems Spectrum Auction Closes," Public Notice, 16 FCC Rcd 21011 (2001).

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

¹⁸¹ See "Auction of 1.4 GHz Bands Licenses Scheduled for February 7, 2007," Public Notice, 21 FCC Rcd 12393 (WTB 2006).

¹⁸² See "Auction of 1.4 GHz Band Licenses Closes; Winning Bidders Announced for Auction No. 69," Public Notice, 22 FCC Rcd 4714 (2007) ("Auction No. 69 Closing PN").

¹⁸³ Auction No. 69 Closing PN, Attachment C.

¹⁸⁴ See Auction No. 69 Closing PN.

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

¹⁸⁶ Teligent acquired the DEMS licenses of FirstMark, the only licensee other than TRW in the 24 GHz band whose license has been modified to require relocation to the 24 GHz band.

57. **Future 24 GHz Licensees.** With respect to new applicants in the 24 GHz band, we have defined “small business” as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the three preceding years not exceeding \$15 million.¹⁸⁷ “Very small business” in the 24 GHz band is defined as an entity that, together with controlling interests and affiliates, has average gross revenues not exceeding \$3 million for the preceding three years.¹⁸⁸ The SBA has approved these definitions.¹⁸⁹ The Commission will not know how many licensees will be small or very small businesses until the auction, if required, is held.

58. **Broadband Radio Service and Educational Broadband Service.** Broadband Radio Service systems, previously referred to as Multipoint Distribution Service (“MDS”) and Multichannel Multipoint Distribution Service (“MMDS”) systems, and “wireless cable,” transmit video programming to subscribers and provide two-way high speed data operations using the microwave frequencies of the Broadband Radio Service (“BRS”) and Educational Broadband Service (“EBS”) (previously referred to as the Instructional Television Fixed Service (“ITFS”)).¹⁹⁰ In connection with the 1996 BRS auction, the Commission established a small business size standard as an entity that had annual average gross revenues of no more than \$40 million in the previous three calendar years.¹⁹¹ The BRS auctions resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas (“BTAs”). Of the 67 auction winners, 61 met the definition of a small business. BRS also includes licensees of stations authorized prior to the auction. At this time, we estimate that of the 61 small business BRS auction winners, 48 remain small business licensees. In addition to the 48 small businesses that hold BTA authorizations, there are approximately 392 incumbent BRS licensees that are considered small entities.¹⁹² After adding the number of small business auction licensees to the number of incumbent licensees not already counted, we find that there are currently approximately 440 BRS licensees that are defined as small businesses under either the SBA or the Commission’s rules. In 2009, the Commission conducted Auction 86, the sale of 78 licenses in the BRS areas.¹⁹³ The Commission offered three levels of bidding credits: (i) a bidder with attributed average annual gross revenues that exceed \$15 million and do not exceed \$40 million for the preceding three years (small business) will receive a 15 percent discount on its winning bid; (ii) a bidder with attributed average annual gross revenues that exceed \$3 million and do not exceed \$15 million for the preceding three years (very small business) will receive a 25 percent discount on its winning bid; and (iii) a bidder with attributed average annual gross revenues that do not exceed \$3 million for the preceding three years (entrepreneur) will receive a 35 percent discount on its winning

¹⁸⁷ *Amendments to Parts 1, 2, 87 and 101 of the Commission’s Rules To License Fixed Services at 24 GHz*, Report and Order, 15 FCC Rcd 16934, 16967, para. 77 (2000) (“*24 GHz Report and Order*”); see also 47 C.F.R. § 101.538(a)(2).

¹⁸⁸ *24 GHz Report and Order*, 15 FCC Rcd at 16967, para. 77; see also 47 C.F.R. § 101.538(a)(1).

¹⁸⁹ See Letter from Gary M. Jackson, Assistant Administrator, SBA, to Margaret W. Wiener, Deputy Chief, Auctions and Industry Analysis Division, WTB, FCC (July 28, 2000).

¹⁹⁰ *Amendment of Parts 21 and 74 of the Commission’s Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, MM Docket No. 94-131 and PP Docket No. 93-253, Report and Order, 10 FCC Rcd 9589, 9593, para. 7 (1995) (“*MDS Auction R&O*”).

¹⁹¹ 47 C.F.R. § 21.961(b)(1).

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

¹⁹³ Auction of Broadband Radio Service (BRS) Licenses, Scheduled for October 27, 2009, Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments, and Other Procedures for Auction 86, *Public Notice*, 24 FCC Rcd 8277 (2009).

bid.¹⁹⁴ Auction 86 concluded in 2009 with the sale of 61 licenses.¹⁹⁵ Of the ten winning bidders, two bidders that claimed small business status won 4 licenses; one bidder that claimed very small business status won three licenses; and two bidders that claimed entrepreneur status won six licenses.

59. In addition, the SBA's Cable Television Distribution Services small business size standard is applicable to EBS. There are presently 2,032 EBS licensees. All but 100 of these licenses are held by educational institutions. Educational institutions are included in this analysis as small entities.¹⁹⁶ Thus, we estimate that at least 1,932 licensees are small businesses. Since 2007, Cable Television Distribution Services have been defined within the broad economic census category of Wired Telecommunications Carriers; that category is defined as follows: "This industry comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies."¹⁹⁷ 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 these cable services we must, however, use current census data that are based on the previous category of Cable and Other Program Distribution and its associated size standard; that size standard was: all such firms having \$13.5 million or less in annual receipts.¹⁹⁸ According to Census Bureau data for 2002, there were a total of 1,191 firms in this previous category that operated for the entire year.¹⁹⁹ Of this total, 1,087 firms had annual receipts of under \$10 million, and 43 firms had receipts of \$10 million or more but less than \$25 million.²⁰⁰ Thus, the majority of these firms can be considered small.

60. **Television Broadcasting.** This Economic Census category "comprises establishments primarily engaged in broadcasting images together with sound. These establishments operate television broadcasting studios and facilities for the programming and transmission of programs to the public."²⁰¹ The SBA has created the following small business size standard for Television Broadcasting firms: those having \$14 million or less in annual receipts.²⁰² The Commission has estimated the number of licensed commercial television stations to be 1,395.²⁰³ In addition, according to Commission staff review of the BIA Publications, Inc., Master Access Television Analyzer Database (BIA) on March 30, 2007, about 986 of an estimated 1,395 commercial television stations (or approximately 72 percent) had revenues of

¹⁹⁴ *Id.* at 8296.

¹⁹⁵ Auction of Broadband Radio Service Licenses Closes, Winning Bidders Announced for Auction 86, Down Payments Due November 23, 2009, Final Payments Due December 8, 2009, Ten-Day Petition to Deny Period, *Public Notice*, 24 FCC Rcd 13572 (2009).

¹⁹⁶ The term "small entity" within SBREFA applies to small organizations (nonprofits) and to small governmental jurisdictions (cities, counties, towns, townships, villages, school districts, and special districts with populations of less than 50,000). 5 U.S.C. §§ 601(4)-(6). We do not collect annual revenue data on EBS licensees.

¹⁹⁷ U.S. Census Bureau, 2007 NAICS Definitions, "517110 Wired Telecommunications Carriers" (partial definition); <http://www.census.gov/naics/2007/def/ND517110.HTM#N517110>.

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

¹⁹⁹ U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, Table 4, Receipts Size of Firms for the United States: 2002, NAICS code 517510 (issued November 2005).

²⁰⁰ *Id.* An additional 61 firms had annual receipts of \$25 million or more.

²⁰¹ U.S. Census Bureau, 2007 NAICS Definitions, "515120 Television Broadcasting" (partial definition); <http://www.census.gov/naics/2007/def/ND515120.HTM#N515120>.

²⁰² 13 C.F.R. § 121.201, NAICS code 515120 (updated for inflation in 2008).

²⁰³ See *FCC News Release*, "Broadcast Station Totals as of June 30, 2009," dated September 4, 2009; http://www.fcc.gov/Daily_Releases/Daily_Business/2008/db0318/DOC-280836A1.pdf.

\$13 million or less.²⁰⁴ We therefore estimate that the majority of commercial television broadcasters are small entities.

61. We note, however, that in assessing whether a business concern qualifies as small under the above definition, business (control) affiliations²⁰⁵ must be included. Our estimate, therefore, likely overstates the number of small entities that might be affected by our action, because the revenue figure on which it is based does not include or aggregate revenues from affiliated companies. In addition, an element of the definition of “small business” is that the entity not be dominant in its field of operation. We are unable at this time to define or quantify the criteria that would establish whether a specific television station is dominant in its field of operation. Accordingly, the estimate of small businesses to which rules may apply does not exclude any television station from the definition of a small business on this basis and is therefore possibly over-inclusive to that extent.

62. In addition, the Commission has estimated the number of licensed noncommercial educational (NCE) television stations to be 390.²⁰⁶ These stations are non-profit, and therefore considered to be small entities.²⁰⁷

63. In addition, there are also 2,386 low power television stations (LPTV).²⁰⁸ Given the nature of this service, we will presume that all LPTV licensees qualify as small entities under the above SBA small business size standard.

64. **Radio Broadcasting.** This Economic Census category “comprises establishments primarily engaged in broadcasting aural programs by radio to the public. Programming may originate in their own studio, from an affiliated network, or from external sources.”²⁰⁹ The SBA has established a small business size standard for this category, which is: such firms having \$7 million or less in annual receipts.²¹⁰ According to Commission staff review of BIA Publications, Inc.’s *Master Access Radio Analyzer Database* on March 31, 2005, about 10,840 (95%) of 11,410 commercial radio stations had revenues of \$6 million or less. Therefore, the majority of such entities are small entities.

65. We note, however, that in assessing whether a business concern qualifies as small under the above size standard, business affiliations must be included.²¹¹ In addition, to be determined to be a “small business,” the entity may not be dominant in its field of operation.²¹² We note that it is difficult at times to assess these criteria in the context of media entities, and our estimate of small businesses may therefore be over-inclusive.

²⁰⁴ We recognize that BIA’s estimate differs slightly from the FCC total given *supra*.

²⁰⁵ “[Business concerns] are affiliates of each other when one concern controls or has the power to control the other or a third party or parties controls or has to power to control both.” 13 C.F.R. § 21.103(a)(1).

²⁰⁶ See *FCC News Release*, “Broadcast Station Totals as of June 30, 2009,” dated September 4, 2009; http://www.fcc.gov/Daily_Releases/Daily_Business/2008/db0318/DOC-280836A1.pdf.

²⁰⁷ See generally 5 U.S.C. §§ 601(4), (6).

²⁰⁸ See *FCC News Release*, “Broadcast Station Totals as of June 30, 2009,” dated September 4, 2009; http://www.fcc.gov/Daily_Releases/Daily_Business/2008/db0318/DOC-280836A1.pdf.

²⁰⁹ U.S. Census Bureau, 2007 NAICS Definitions, “515112 Radio Stations”; <http://www.census.gov/naics/2007/def/ND515112.HTM#N515112>.

²¹⁰ 13 C.F.R. § 121.201, NAICS code 515112 (updated for inflation in 2008).

²¹¹ “Concerns and entities are affiliates of each other when one controls or has the power to control the other, or a third party or parties controls or has the power to control both. It does not matter whether control is exercised, so long as the power to control exists.” 13 C.F.R. § 121.103(a)(1) (an SBA regulation).

²¹² 13 C.F.R. § 121.102(b) (an SBA regulation).

66. **Auxiliary, Special Broadcast and Other Program Distribution Services.** This service involves a variety of transmitters, generally used to relay broadcast programming to the public (through translator and booster stations) or within the program distribution chain (from a remote news gathering unit back to the station). The Commission has not developed a definition of small entities applicable to broadcast auxiliary licensees. The applicable definitions of small entities are those, noted previously, under the SBA rules applicable to radio broadcasting stations and television broadcasting stations.²¹³

67. The Commission estimates that there are approximately 5,618 FM translators and boosters.²¹⁴ The Commission does not collect financial information on any broadcast facility, and the Department of Commerce does not collect financial information on these auxiliary broadcast facilities. We believe that most, if not all, of these auxiliary facilities could be classified as small businesses by themselves. We also recognize that most commercial translators and boosters are owned by a parent station which, in some cases, would be covered by the revenue definition of small business entity discussed above. These stations would likely have annual revenues that exceed the SBA maximum to be designated as a small business (\$7.0 million for a radio station or \$14.0 million for a TV station). Furthermore, they do not meet the Small Business Act's definition of a "small business concern" because they are not independently owned and operated.²¹⁵

68. **Cable Television Distribution Services.** 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."²¹⁶ 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 these cable services we must, however, use current census data that are based on the previous category of Cable and Other Program Distribution and its associated size standard; that size standard was: all such firms having \$13.5 million or less in annual receipts.²¹⁷ According to Census Bureau data for 2002, there were a total of 1,191 firms in this previous category that operated for the entire year.²¹⁸ Of this total, 1,087 firms had annual receipts of under \$10 million, and 43 firms had receipts of \$10 million or more but less than \$25 million.²¹⁹ Thus, the majority of these firms can be considered small.

69. **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.²²⁰ Industry data indicate that, of

²¹³ 13 C.F.R. 121.201, NAICS codes 515112 and 515120.

²¹⁴ See *supra* note 242.

²¹⁵ See 15 U.S.C. § 632.

²¹⁶ U.S. Census Bureau, 2007 NAICS Definitions, "517110 Wired Telecommunications Carriers" (partial definition); <http://www.census.gov/naics/2007/def/ND517110.HTM#N517110>.

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

²¹⁸ U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, Table 4, Receipts Size of Firms for the United States: 2002, NAICS code 517510 (issued November 2005).

²¹⁹ *Id.* An additional 61 firms had annual receipts of \$25 million or more.

²²⁰ 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).

1,076 cable operators nationwide, all but eleven are small under this size standard.²²¹ In addition, under the Commission's rules, a "small system" is a cable system serving 15,000 or fewer subscribers.²²² Industry data indicate that, of 6,635 systems nationwide, 5,802 systems have under 10,000 subscribers, and an additional 302 systems have 10,000-19,999 subscribers.²²³ Thus, under this second size standard, most cable systems are small.

70. **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."²²⁴ 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.²²⁵ Industry data indicate that, of 1,076 cable operators nationwide, all but ten are small under this size standard.²²⁶ 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,²²⁷ and therefore we are unable to estimate more accurately the number of cable system operators that would qualify as small under this size standard.

71. **Open Video Systems.** The open video system ("OVS") framework was established in 1996, and is one of four statutorily recognized options for the provision of video programming services by local exchange carriers.²²⁸ The OVS framework provides opportunities for the distribution of video programming other than through cable systems. Because OVS operators provide subscription services,²²⁹ OVS falls within the SBA small business size standard covering cable services, which is "Wired Telecommunications Carriers."²³⁰ 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

²²¹ These data are derived from: R.R. Bowker, *Broadcasting & Cable Yearbook 2006*, "Top 25 Cable/Satellite Operators," pages A-8 & C-2 (data current as of June 30, 2005); Warren Communications News, *Television & Cable Factbook 2006*, "Ownership of Cable Systems in the United States," pages D-1805 to D-1857.

²²² 47 C.F.R. § 76.901(c).

²²³ Warren Communications News, *Television & Cable Factbook 2008*, "U.S. Cable Systems by Subscriber Size," page F-2 (data current as of Oct. 2007). The data do not include 851 systems for which classifying data were not available.

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

²²⁵ 47 C.F.R. § 76.901(f); see Public Notice, *FCC Announces New Subscriber Count for the Definition of Small Cable Operator*, DA 01-158 (Cable Services Bureau, Jan. 24, 2001).

²²⁶ These data are derived from: R.R. Bowker, *Broadcasting & Cable Yearbook 2006*, "Top 25 Cable/Satellite Operators," pages A-8 & C-2 (data current as of June 30, 2005); Warren Communications News, *Television & Cable Factbook 2006*, "Ownership of Cable Systems in the United States," pages D-1805 to D-1857.

²²⁷ 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).

²²⁸ 47 U.S.C. § 571(a)(3)-(4). See *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Thirteenth Annual Report*, 24 FCC Rcd 542, 606 para. 135 (2009) ("*Thirteenth Annual Cable Competition Report*").

²²⁹ See 47 U.S.C. § 573.

²³⁰ U.S. Census Bureau, 2007 NAICS Definitions, "517110 Wired Telecommunications Carriers"; <http://www.census.gov/naics/2007/def/ND517110.HTM#N517110>.

for such services we must, however, use current census data that are based on the previous category of Cable and Other Program Distribution and its associated size standard; that size standard was: all such firms having \$13.5 million or less in annual receipts.²³¹ According to Census Bureau data for 2002, there were a total of 1,191 firms in this previous category that operated for the entire year.²³² Of this total, 1,087 firms had annual receipts of under \$10 million, and 43 firms had receipts of \$10 million or more but less than \$25 million.²³³ Thus, the majority of cable firms can be considered small. In addition, we note that the Commission has certified some OVS operators, with some now providing service.²³⁴ Broadband service providers (“BSPs”) are currently the only significant holders of OVS certifications or local OVS franchises.²³⁵ The Commission does not have financial or employment information regarding the entities authorized to provide OVS, some of which may not yet be operational. Thus, again, at least some of the OVS operators may qualify as small entities.

72. Cable Television Relay Service. This service includes transmitters generally used to relay cable programming within cable television system distribution systems. This cable service is 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.”²³⁶ 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 cable services we must, however, use current census data that are based on the previous category of Cable and Other Program Distribution and its associated size standard; that size standard was: all such firms having \$13.5 million or less in annual receipts.²³⁷ According to Census Bureau data for 2002, there were a total of 1,191 firms in this previous category that operated for the entire year.²³⁸ Of this total, 1,087 firms had annual receipts of under \$10 million, and 43 firms had receipts of \$10 million or more but less than \$25 million.²³⁹ Thus, the majority of these firms can be considered small.

73. Multichannel Video Distribution and Data Service. MVDDS is a terrestrial fixed microwave service operating in the 12.2-12.7 GHz band. The Commission adopted criteria for defining three groups of small businesses for purposes of determining their eligibility for special provisions such as bidding credits. It defined a very small business as an entity with average annual gross revenues not exceeding \$3 million for the preceding three years; a small business as an entity with average annual gross revenues not exceeding \$15 million for the preceding three years; and an entrepreneur as an entity

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

²³² U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, Table 4, Receipts Size of Firms for the United States: 2002, NAICS code 517510 (issued November 2005).

²³³ *Id.* An additional 61 firms had annual receipts of \$25 million or more.

²³⁴ A list of OVS certifications may be found at <http://www.fcc.gov/mb/ovs/csovsцер.html>.

²³⁵ See *Thirteenth Annual Cable Competition Report*, 24 FCC Rcd at 606-07 para. 135. BSPs are newer firms that are building state-of-the-art, facilities-based networks to provide video, voice, and data services over a single network.

²³⁶ U.S. Census Bureau, 2007 NAICS Definitions, “517110 Wired Telecommunications Carriers” (partial definition); <http://www.census.gov/naics/2007/def/ND517110.HTM#N517110>.

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

²³⁸ U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, Table 4, Receipts Size of Firms for the United States: 2002, NAICS code 517510 (issued November 2005).

²³⁹ *Id.* An additional 61 firms had annual receipts of \$25 million or more.

with average annual gross revenues not exceeding \$40 million for the preceding three years.²⁴⁰ These definitions were approved by the SBA.²⁴¹ On January 27, 2004, the Commission completed an auction of 214 MVDDS licenses (Auction No. 53). In this auction, ten winning bidders won a total of 192 MVDDS licenses.²⁴² Eight of the ten winning bidders claimed small business status and won 144 of the licenses. The Commission also held an auction of MVDDS licenses on December 7, 2005 (Auction 63). Of the three winning bidders who won 22 licenses, two winning bidders, winning 21 of the licenses, claimed small business status.²⁴³

74. **Amateur Radio Service.** These licensees are held by individuals in a noncommercial capacity; these licensees are not small entities.

75. **Aviation and Marine Services.** Small businesses in the aviation and marine radio services use a very high frequency (“VHF”) marine or aircraft radio and, as appropriate, an emergency position-indicating radio beacon (and/or radar) or an emergency locator transmitter. The Commission has not developed a small business size standard specifically applicable to these small businesses. For purposes of this analysis, the Commission uses the SBA small business size standard for the category Wireless Telecommunications Carriers (except Satellite), which is 1,500 or fewer employees.²⁴⁴ Most applicants for recreational licenses are individuals. Approximately 581,000 ship station licensees and 131,000 aircraft station licensees operate domestically and are not subject to the radio carriage requirements of any statute or treaty. For purposes of our evaluations in this analysis, we estimate that there are up to approximately 712,000 licensees that are small businesses (or individuals) under the SBA standard. In addition, between December 3, 1998 and December 14, 1998, the Commission held an auction of 42 VHF Public Coast licenses in the 157.1875-157.4500 MHz (ship transmit) and 161.775-162.0125 MHz (coast transmit) bands. For purposes of the auction, the Commission defined a “small” business as an entity that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed \$15 million dollars. In addition, a “very small” business is one that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed \$3 million dollars.²⁴⁵ There are approximately 10,672 licensees in the Marine Coast Service, and the Commission estimates that almost all of them qualify as “small” businesses under the above special small business size standards.

76. **Personal Radio Services.** Personal radio services provide short-range, low power radio for personal communications, radio signaling, and business communications not provided for in other services. The Personal Radio Services include spectrum licensed under Part 95 of our rules.²⁴⁶ These

²⁴⁰ *Amendment of Parts 2 and 25 of the Commission’s Rules to Permit Operation of NGSO FSS Systems Co-Frequency with GSO and Terrestrial Systems in the Ku-Band Frequency Range; Amendment of the Commission’s Rules to Authorize Subsidiary Terrestrial Use of the 12.2-12.7 GHz Band by Direct Broadcast Satellite Licenses and their Affiliates; and Applications of Broadwave USA, PDC Broadband Corporation, and Satellite Receivers, Ltd. to provide A Fixed Service in the 12.2-12.7 GHz Band*, ET Docket No. 98-206, Memorandum Opinion and Order and Second Report and Order, 17 FCC Rcd 9614, 9711, para. 252 (2002).

²⁴¹ See Letter from Hector V. Barreto, Administrator, U.S. Small Business Administration, to Margaret W. Wiener, Chief, Auctions and Industry Analysis Division, WTB, FCC (Feb.13, 2002).

²⁴² See “*Multichannel Video Distribution and Data Service Auction Closes*,” Public Notice, 19 FCC Rcd 1834 (2004).

²⁴³ See “*Auction of Multichannel Video Distribution and Data Service Licenses Closes; Winning Bidders Announced for Auction No. 63*,” Public Notice, 20 FCC Rcd 19807 (2005).

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

²⁴⁵ *Amendment of the Commission’s Rules Concerning Maritime Communications*, Third Report and Order and Memorandum Opinion and Order, 13 FCC Rcd 19853 (1998).

²⁴⁶ 47 C.F.R. Part 90.

services include Citizen Band Radio Service (“CB”), General Mobile Radio Service (“GMRS”), Radio Control Radio Service (“R/C”), Family Radio Service (“FRS”), Wireless Medical Telemetry Service (“WMTS”), Medical Implant Communications Service (“MICS”), Low Power Radio Service (“LPRS”), and Multi-Use Radio Service (“MURS”).²⁴⁷ There are a variety of methods used to license the spectrum in these rule parts, from licensing by rule, to conditioning operation on successful completion of a required test, to site-based licensing, to geographic area licensing. Under the RFA, the Commission is required to make a determination of which small entities are directly affected by the rules being proposed. Since all such entities are wireless, we apply the definition of Wireless Telecommunications Carriers (except Satellite), pursuant to which a small entity is defined as employing 1,500 or fewer persons.²⁴⁸ Many of the licensees in these services are individuals, and thus are not small entities. In addition, due to the mostly unlicensed and shared nature of the spectrum utilized in many of these services, the Commission lacks direct information upon which to base an estimation of the number of small entities under an SBA definition that might be directly affected by the proposed rules.

77. **Public Safety Radio Services.** Public Safety radio services include police, fire, local government, forestry conservation, highway maintenance, and emergency medical services.²⁴⁹ There are a total of approximately 127,540 licensees in these services. Governmental entities as well as private businesses comprise the licensees for these services. All governmental entities with populations of fewer than 50,000 fall within the definition of a small entity.²⁵⁰

78. **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 connections (*e.g.* cable and DSL, ISPs), or over client-supplied telecommunications connections (*e.g.* dial-up ISPs). The former are

²⁴⁷ The Citizens Band Radio Service, General Mobile Radio Service, Radio Control Radio Service, Family Radio Service, Wireless Medical Telemetry Service, Medical Implant Communications Service, Low Power Radio Service, and Multi-Use Radio Service are governed by Subpart D, Subpart A, Subpart C, Subpart B, Subpart H, Subpart I, Subpart G, and Subpart J, respectively, of Part 95 of the Commission’s rules. *See generally* 47 C.F.R. Part 95.

²⁴⁸ 13 C.F.R. § 121.201, NAICS Code 517210.

²⁴⁹ With the exception of the special emergency service, these services are governed by Subpart B of part 90 of the Commission’s Rules, 47 C.F.R. §§ 90.15-90.27. The police service includes approximately 27,000 licensees that serve state, county, and municipal enforcement through telephony (voice), telegraphy (code) and teletype and facsimile (printed material). The fire radio service includes approximately 23,000 licensees comprised of private volunteer or professional fire companies as well as units under governmental control. The local government service that is presently comprised of approximately 41,000 licensees that are state, county, or municipal entities that use the radio for official purposes not covered by other public safety services. There are approximately 7,000 licensees within the forestry service which is comprised of licensees from state departments of conservation and private forest organizations who set up communications networks among fire lookout towers and ground crews. The approximately 9,000 state and local governments are licensed to highway maintenance service provide emergency and routine communications to aid other public safety services to keep main roads safe for vehicular traffic. The approximately 1,000 licensees in the Emergency Medical Radio Service (“EMRS”) use the 39 channels allocated to this service for emergency medical service communications related to the delivery of emergency medical treatment. 47 C.F.R. §§ 90.15-90.27. The approximately 20,000 licensees in the special emergency service include medical services, rescue organizations, veterinarians, handicapped persons, disaster relief organizations, school buses, beach patrols, establishments in isolated areas, communications standby facilities, and emergency repair of public communications facilities. 47 C.F.R. §§ 90.33-90.55.

²⁵⁰ 5 U.S.C. § 601(5).

within the category of Wired Telecommunications Carriers,²⁵¹ which has an SBA small business size standard of 1,500 or fewer employees.²⁵² The latter are within the category of All Other Telecommunications,²⁵³ which has a size standard of annual receipts of \$25 million or less.²⁵⁴ The most current Census Bureau data for all such firms, however, are the 2002 data for the previous census category called Internet Service Providers.²⁵⁵ That category had a small business size standard of \$21 million or less in annual receipts, which was revised in late 2005 to \$23 million. The 2002 data show that there were 2,529 such firms that operated for the entire year.²⁵⁶ Of those, 2,437 firms had annual receipts of under \$10 million, and an additional 47 firms had receipts of between \$10 million and \$24,999,999.²⁵⁷ Consequently, we estimate that the majority of ISP firms are small entities.

79. The ISP industry has changed dramatically since 2002. The 2002 data cited above may therefore include entities that no longer provide Internet access service and may exclude entities that now provide such service. To ensure that this IRFA describes the universe of small entities that our action might affect, we discuss in turn several different types of entities that might be providing Internet access service.

80. We note that, although we have no specific information on the number of small entities that provide Internet access service over unlicensed spectrum, we include these entities here.

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

81. The rules proposed herein would require certain entities or individuals to replace and/or consolidate their existing FRNs. Some additional entities and individuals would be required to report their Taxpayer Identification Number. In addition, potential CORES registrants would be required to provide a valid e-mail address as a prerequisite to completing the registration process. Also, entities claiming tax-exempt status or engaged in bankruptcy proceedings would be required to submit documentation demonstrating their tax-exempt or bankruptcy status. A substantial number of entities and individuals doing business with the Commission have already received their FRN by virtue of their prior registration in CORES, and we anticipate that the changes proposed here will have no significant economic impact on them. We have proposed to make it extremely simple, and virtually cost-free, for anyone else to obtain or revise their already-existing FRN(s). The proposals contained in this *Notice* do not include any changes in the language of FCC Forms nor would they require extra filings.

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

²⁵¹ U.S. Census Bureau, 2007 NAICS Definitions, "517110 Wired Telecommunications Carriers", <http://www.census.gov/naics/2007/def/ND517110.HTM#N517110>.

²⁵² 13 C.F.R. § 121.201, NAICS code 517110 (updated for inflation in 2008).

²⁵³ U.S. Census Bureau, 2007 NAICS Definitions, "517919 All Other Telecommunications"; <http://www.census.gov/naics/2007/def/ND517919.HTM#N517919>.

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

²⁵⁵ U.S. Census Bureau, "2002 NAICS Definitions, "518111 Internet Service Providers"; <http://www.census.gov/eped/naics02/def/NDEF518.HTM>.

²⁵⁶ U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, "Establishment and Firm Size (Including Legal Form of Organization)," Table 4, NAICS code 518111 (issued Nov. 2005).

²⁵⁷ An additional 45 firms had receipts of \$25 million or more.

82. The RFA requires an agency to describe any significant, specifically small business, alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): “(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance 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.”²⁵⁸

83. We are attempting to reduce a possible regulatory burden by considering different methods by which we could limit individuals and entities to a single FRN, in order to improve the effectiveness and efficiency of our electronic registration system and to limit the documentation that certain entities would be required to submit to demonstrate their tax exempt or bankruptcy status. We will continue to examine alternatives in the future, with the objective of minimizing any significant impact on small entities. We seek comment on significant alternatives that commenters believe we should adopt.

F. Federal rules that overlap, duplicate, or conflict with these proposed rules.

84. None.

²⁵⁸ 5 U.S.C. § 603(c)(1)-(c)(4).