

fewer employees.⁴⁶⁵ According to Census Bureau data for 1997, there were 2,225 firms in this category, total, that operated for the entire year.⁴⁶⁶ Of this total, 2,201 firms had employment of 999 or fewer employees, and an additional 24 firms had employment of 1,000 employees or more.⁴⁶⁷ Thus, under this size standard, the majority of firms can be considered small.

158. *Incumbent Local Exchange Carriers (LECs)*. Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to incumbent local exchange services. The closest applicable size standard under SBA rules is for Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁴⁶⁸ According to Commission data,⁴⁶⁹ 1,337 carriers reported that they were engaged in the provision of local exchange services. Of these 1,337 carriers, an estimated 1,032 have 1,500 or fewer employees and 305 have more than 1,500 employees. Consequently, the Commission estimates that most providers of incumbent local exchange service are small businesses that may be affected by the rules and policies adopted herein.

159. *Competitive Local Exchange Carriers (CLECs), Competitive Access Providers (CAPs), and "Other Local Exchange Carriers."* Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to providers of competitive exchange services or to competitive access providers or to "Other Local Exchange Carriers," all of which are discrete categories under which TRS data are collected. The closest applicable size standard under SBA rules is for Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁴⁷⁰ According to Commission data,⁴⁷¹ 609 companies reported that they were engaged in the provision of either competitive access provider services or competitive local exchange carrier services. Of these 609 companies, an estimated 458 have 1,500 or fewer employees and 151 have more than 1,500 employees.⁴⁷² In addition, 35 carriers reported that they were "Other Local Service Providers." Of the 35 "Other Local Service Providers," an estimated 34 have 1,500 or fewer employees and one has more than 1,500 employees.⁴⁷³ Consequently, the Commission estimates that most providers of competitive local exchange service, competitive access providers, and "Other Local Exchange Carriers" are small entities that may be affected by the rules and policies adopted herein.

⁴⁶⁵13 C.F.R. § 121.201, NAICS code 517110.

⁴⁶⁶U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, "Establishment and Firm Size (Including Legal Form of Organization)," Table 5, NAICS code 513310.

⁴⁶⁷*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 "Firms with 1,000 employees or more."

⁴⁶⁸13 C.F.R. § 121.201, NAICS code 517110.

⁴⁶⁹*Trends in Telephone Service* at Table 5.3.

⁴⁷⁰13 C.F.R. § 121.201, NAICS code 517110.

⁴⁷¹*Trends in Telephone Service* at Table 5.3.

⁴⁷²*Id.*

⁴⁷³*Id.*

160. *Interexchange Carriers (IXCs)*. Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to interexchange services. The closest applicable size standard under SBA rules is for Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁴⁷⁴ According to Commission data,⁴⁷⁵ 261 companies reported that their primary telecommunications service activity was the provision of interexchange services. Of these 261 companies, an estimated 223 have 1,500 or fewer employees and 38 have more than 1,500 employees.⁴⁷⁶ Consequently, the Commission estimates that the majority of interexchange service providers are small entities that may be affected by the rules and policies adopted herein.

161. *Operator Service Providers (OSPs)*. Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to operator service providers. The closest applicable size standard under SBA rules is for Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁴⁷⁷ According to Commission data,⁴⁷⁸ 23 companies reported that they were engaged in the provision of operator services. Of these 23 companies, an estimated 22 have 1,500 or fewer employees and one has more than 1,500 employees.⁴⁷⁹ Consequently, the Commission estimates that the majority of operator service providers are small entities that may be affected by the rules and policies adopted herein.

162. *Payphone Service Providers (PSPs)*. Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to payphone service providers. The closest applicable size standard under SBA rules is for Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁴⁸⁰ According to Commission data,⁴⁸¹ 761 companies reported that they were engaged in the provision of payphone services. Of these 761 companies, an estimated 757 have 1,500 or fewer employees and four have more than 1,500 employees.⁴⁸² Consequently, the Commission estimates that the majority of payphone service providers are small entities that may be affected by the rules and policies adopted herein.

163. *Prepaid Calling Card Providers*. The SBA has developed a size standard for a small business within the category of Telecommunications Resellers. Under that SBA size standard, such a business is small if it has 1,500 or fewer employees.⁴⁸³ According to Commission data,⁴⁸⁴ 37 companies

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

⁴⁷⁵ *Trends in Telephone Service* at Table 5.3.

⁴⁷⁶ *Id.*

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

⁴⁷⁸ *Trends in Telephone Service* at Table 5.3.

⁴⁷⁹ *Id.*

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

⁴⁸¹ *Trends in Telephone Service* at Table 5.3.

⁴⁸² *Id.*

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

reported that they were engaged in the provision of prepaid calling cards. Of these 37 companies, an estimated 36 have 1,500 or fewer employees and one has more than 1,500 employees.⁴⁸⁵ Consequently, the Commission estimates that the majority of prepaid calling card providers are small entities that may be affected by the rules and policies adopted herein.

164. *Local Resellers.* The SBA has developed a small business size standard for the category of Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁴⁸⁶ According to Commission data,⁴⁸⁷ 133 carriers have reported that they are engaged in the provision of local resale services. Of these, an estimated 127 have 1,500 or fewer employees and six have more than 1,500 employees. Consequently, the Commission estimates that the majority of local resellers are small entities that may be affected by our action.

165. *Toll Resellers.* The SBA has developed a small business size standard for the category of Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁴⁸⁸ According to Commission data,⁴⁸⁹ 625 carriers have reported that they are engaged in the provision of toll resale services. Of these, an estimated 590 have 1,500 or fewer employees and 35 have more than 1,500 employees. Consequently, the Commission estimates that the majority of toll resellers are small entities that may be affected by our action.

166. *Other Toll Carriers.* Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to “Other Toll Carriers.” This category includes toll carriers that do not fall within the categories of interexchange carriers, operator service providers, prepaid calling card providers, satellite service carriers, or toll resellers. The closest applicable size standard under SBA rules is for Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁴⁹⁰ According to Commission’s data,⁴⁹¹ 92 companies reported that their primary telecommunications service activity was the provision of other toll carriage. Of these 92 companies, an estimated 82 have 1,500 or fewer employees and ten have more than 1,500 employees.⁴⁹² Consequently, the Commission estimates that most “Other Toll Carriers” are small entities that may be affected by the rules and policies adopted herein.

167. *Paging.* The SBA has developed a small business size standard for Paging, which

(Continued from previous page) _____

⁴⁸⁴*Trends in Telephone Service* at Table 5.3.

⁴⁸⁵*Id.*

⁴⁸⁶13 CFR § 121.201, NAICS code 513330.

⁴⁸⁷*Trends in Telephone Service* at Table 5.3.

⁴⁸⁸13 CFR § 121.201, NAICS code 513330.

⁴⁸⁹*Trends in Telephone Service* at Table 5.3.

⁴⁹⁰13 C.F.R. § 121.201, NAICS code 517110.

⁴⁹¹*Trends in Telephone Service* at Table 5.3.

⁴⁹²*Id.*

consists of all such firms having 1,500 or fewer employees.⁴⁹³ According to Census Bureau data for 1997, in this category there was a total of 1,320 firms that operated for the entire year.⁴⁹⁴ Of this total, 1,303 firms had employment of 999 or fewer employees, and an additional seventeen firms had employment of 1,000 employees or more.⁴⁹⁵ Thus, under this size standard, the majority of firms can be considered small.

168. *Cellular and Other Wireless Telecommunications.* The SBA has developed a small business size standard for Cellular and Other Wireless Telecommunication, which consists of all such firms having 1,500 or fewer employees.⁴⁹⁶ According to Census Bureau data for 1997, in this category there was a total of 977 firms that operated for the entire year.⁴⁹⁷ Of this total, 965 firms had employment of 999 or fewer employees, and an additional twelve firms had employment of 1,000 employees or more.⁴⁹⁸ Thus, under this size standard, the majority of firms can be considered small.

169. *Broadband Personal Communications Service.* The broadband Personal Communications Service (PCS) spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission defined “small entity” for Blocks C and F as an entity that has average gross revenues of \$40 million or less in the three previous calendar years.⁴⁹⁹ For Block F, an additional classification for “very small business” was added and is defined as an entity that, together with its affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years.⁵⁰⁰ These standards defining “small entity” in the context of broadband PCS auctions have been approved by the SBA.⁵⁰¹ 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

⁴⁹³13 C.F.R. § 121.201, NAICS code 513321.

⁴⁹⁴U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization),” Table 5, NAICS code 513321.

⁴⁹⁵*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 “Firms with 1,000 employees or more.”

⁴⁹⁶13 C.F.R. § 121.201, NAICS code 513322.

⁴⁹⁷U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization),” Table 5, NAICS code 513322.

⁴⁹⁸*Id.* The census data do not provide a more precise estimate of the number of firms that have 1,500 or fewer employees; the largest category provided is “Firms with 1,000 employees or more.”

⁴⁹⁹*See Amendment of Parts 20 and 24 of the Commission’s Rules – Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap*, WT Docket No. 96-59, Report and Order, 61 FR 33859 (July 1, 1996); *see also* 47 C.F.R. § 24.720(b).

⁵⁰⁰*See id.*

⁵⁰¹*See, e.g., Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, PP Docket No. 93-253, Fifth Report and Order, 59 FR 37566 (July 22, 1994).

bidders won approximately 40 percent of the 1,479 licenses for Blocks D, E, and F.⁵⁰² On March 23, 1999, the Commission re-auctioned 347 C, D, E, and F Block licenses. There were 48 small business winning bidders. On January 26, 2001, the Commission completed the auction of 422 C and F Broadband PCS licenses in Auction No. 35. Of the 35 winning bidders in this auction, 29 qualified as “small” or “very small” businesses. Based on this information, the Commission concludes that the number of small broadband PCS licenses will include the 90 winning C Block bidders, the 93 qualifying bidders in the D, E, and F Block auctions, the 48 winning bidders in the 1999 re-auction, and the 29 winning bidders in the 2001 re-auction, for a total of 260 small entity broadband PCS providers, as defined by the SBA small business size standards and the Commission’s auction rules. We note that, as a general matter, the number of winning bidders that qualify as small businesses at the close of an auction does not necessarily represent the number of small businesses currently in service. Also, the Commission does not generally track subsequent business size unless, in the context of assignments or transfers, unjust enrichment issues are implicated.

170. *Narrowband Personal Communications Services.* The Commission has adopted a two-tiered small business size standard in the *Narrowband PCS Second Report and Order*.⁵⁰³ 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. 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. The SBA has approved these small business size standards.⁵⁰⁴ In the future, the Commission will auction 459 licenses to serve Metropolitan Trading Areas (MTAs) and 408 response channel licenses. There is also one megahertz of narrowband PCS spectrum that has been held in reserve and that the Commission has not yet decided to release for licensing. The Commission cannot predict accurately the number of licenses that will be awarded to small entities in future actions. However, four of the 16 winning bidders in the two previous narrowband PCS auctions were small businesses, as that term was defined under the Commission’s Rules. The Commission assumes, for purposes of this analysis, that a large portion of the remaining narrowband PCS licenses will be awarded to small entities. The Commission also assumes that at least some small businesses will acquire narrowband PCS licenses by means of the Commission’s partitioning and disaggregation rules.

171. *220 MHz Radio Service – Phase I Licensees.* The 220 MHz service has both Phase I and Phase II licenses. Phase I licensing was conducted by lotteries in 1992 and 1993. There are approximately 1,515 such non-nationwide licensees and four nationwide licensees currently authorized to operate in the 220 MHz band. The Commission has not developed a small business size standard for small entities specifically applicable to such incumbent 220 MHz Phase I licensees. To estimate the number of such licensees that are small businesses, we apply the small business size standard under the SBA rules applicable to “Cellular and Other Wireless Telecommunications” companies. This standard

⁵⁰²FCC News, Broadband PCS, D, E and F Block Auction Closes, No. 71744 (rel. January 14, 1997). See also *Amendment of the Commission’s Rules Regarding Installment Payment Financing for Personal Communications Services (PCS) Licenses*, WT Docket No. 97-82, Second Report and Order, 62 FR 55348 (Oct. 24, 1997).

⁵⁰³*Amendment of the Commission’s Rules to Establish New Personal Communications Services, Narrowband PCS*, Docket No. ET 92-100, Docket No. PP 93-253, Second Report and Order and Second Further Notice of Proposed Rulemaking, 65 FR 35875 (June 6, 2000).

⁵⁰⁴See Letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC, from Aida Alvarez, Administrator, SBA (Dec. 2, 1998).

provides that such a company is small if it employs no more than 1,500 persons.⁵⁰⁵ According to Census Bureau data for 1997, there were 977 firms in this category, total, that operated for the entire year.⁵⁰⁶ Of this total, 965 firms had employment of 999 or fewer employees, and an additional 12 firms had employment of 1,000 employees or more.⁵⁰⁷ If this general ratio continues in the context of Phase I 220 MHz licensees, the Commission estimates that nearly all such licensees are small businesses under the SBA's small business size standard.

172. *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*, we adopted a small business size standard for “small” and “very small” businesses for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.⁵⁰⁸ This small business size standard indicates that a “small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$15 million for the preceding three years.⁵⁰⁹ A “very small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues that do not exceed \$3 million for the preceding three years. The SBA has approved these small business size standards.⁵¹⁰ Auctions of Phase II licenses commenced on September 15, 1998, and closed on October 22, 1998.⁵¹¹ In the first auction, 908 licenses were auctioned in three different-sized geographic areas: three nationwide licenses, 30 Regional Economic Area Group (EAG) Licenses, and 875 Economic Area (EA) Licenses. Of the 908 licenses auctioned, 693 were sold. Thirty-nine small businesses won licenses in the first 220 MHz auction. The second auction included 225 licenses: 216 EA licenses and 9 EAG licenses. Fourteen companies claiming small business status won 158 licenses.⁵¹²

173. *800 MHz and 900 MHz Specialized Mobile Radio Licenses.* The Commission awards “small entity” and “very small entity” bidding credits in auctions for Specialized Mobile Radio (SMR) geographic area licenses in the 900 MHz bands to firms that had revenues of no more than \$15 million in each of the three previous calendar years, or that had revenues of no more than \$3 million in each of the

⁵⁰⁵13 C.F.R. § 121.201, NAICS code 517212.

⁵⁰⁶U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, “Employment Size of Firms Subject to Federal Income Tax: 1997,” Table 5, NAICS code 513322.

⁵⁰⁷*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 “Firms with 1,000 employees or more.”

⁵⁰⁸*Amendment of Part 90 of the Commission's Rules to Provide for the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service*, PR Docket No. 89-552, GN Docket No. 93-252, PP Docket No. 93-253, Third Report and Order and Fifth Notice of Proposed Rulemaking, 12 FCC Rcd 10943, 11068-70, paras. 291-95 (1997) (*220 MHz Third Report and Order*).

⁵⁰⁹*Id.* at 11068-70, para. 291.

⁵¹⁰See letter to D. Phythyon, Chief, Wireless Telecommunications Bureau, FCC, from Aida Alvarez, Administrator, SBA (Jan. 6, 1998).

⁵¹¹See generally Public Notice, “220 MHz Service Auction Closes,” 14 FCC Rcd 605 (1998).

⁵¹²Public Notice, “Phase II 220 MHz Service Spectrum Auction Closes,” 14 FCC Rcd 11218 (1999).

previous calendar years.⁵¹³ The SBA has approved these size standards.⁵¹⁴ The Commission awards “small entity” and “very small entity” bidding credits in auctions for Specialized Mobile Radio (SMR) geographic area licenses in the 800 MHz bands to firms that had revenues of no more than \$40 million in each of the three previous calendar years, or that had revenues of no more than \$15 million in each of the previous calendar years.⁵¹⁵ These bidding credits apply to SMR providers in the 800 MHz and 900 MHz bands that either hold geographic area licenses or have obtained extended implementation authorizations. The Commission does not know how many firms provide 800 MHz or 900 MHz geographic area SMR service 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. The Commission assumes, for purposes here, that all of the remaining existing extended implementation authorizations are held by small entities, as that term is defined by the SBA. The Commission has held auctions for geographic area licenses in the 800 MHz and 900 MHz SMR bands. There were 60 winning bidders that qualified as small or very small entities in the 900 MHz SMR auctions. Of the 1,020 licenses won in the 900 MHz auction, bidders qualifying as small or very small entities won 263 licenses. In the 800 MHz auction, 38 of the 524 licenses won were won by small and very small entities. We note that, as a general matter, the number of winning bidders that qualify as small businesses at the close of an auction does not necessarily represent the number of small businesses currently in service. Also, the Commission does not generally track subsequent business size unless, in the context of assignments or transfers, unjust enrichment issues are implicated.

174. *Private and Common Carrier Paging.* In the *Paging Third Report and Order*, we developed a small business size standard for “small businesses” and “very small businesses” for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.⁵¹⁶ A “small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$15 million for the preceding three years. Additionally, a “very small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$3 million for the preceding three years. The SBA has approved these size standards.⁵¹⁷ An auction of Metropolitan Economic Area licenses commenced on February 24, 2000, and closed on March 2, 2000.⁵¹⁸ Of the 985 licenses auctioned, 440 were sold. Fifty-seven companies

⁵¹³47 C.F.R. § 90.814(b)(1).

⁵¹⁴See Letter from Aida Alvarez, Administration, Small Business Administration to Daniel B. Phythyon, Chief, Wireless Telecommunications Bureau, Federal Communications Commission (Oct. 27, 1997). See Letter from Aida Alvarez, Administrator, Small Business Administration to Thomas Sugrue, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission (Aug. 10, 1999).

⁵¹⁵47 C.F.R. § 90.814(b)(1) A request for approval of 800 MHz standards was sent to the SBA on May 13, 1999. The matter remains pending.

⁵¹⁶220 MHz *Third Report and Order*, 12 FCC Rcd at 11068-70, paras. 291-295, 62 FR 16004 at paras. 291-295 (1997).

⁵¹⁷See Letter from Aida Alvarez, Administrator, Small Business Administration to Thomas Sugrue, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission (June 4, 1999).

⁵¹⁸*Revision of Part 22 and Part 90 of the Commission’s Rules to Facilitate Future Development of Paging Systems*, WT Docket No. 96-18, PR Docket No. 93-253, Memorandum Opinion and Order on Reconsideration and Third Report and Order, 14 FCC Rcd 10030, 10085, para. 98 (1999).

claiming small business status won. At present, there are approximately 24,000 Private-Paging site-specific licenses and 74,000 Common Carrier Paging licenses. According to the most recent *Trends in Telephone Service*, 471 carriers reported that they were engaged in the provision of either paging and messaging services or other mobile services.⁵¹⁹ Of those, the Commission estimates that 450 are small, under the SBA business size standard specifying that firms are small if they have 1,500 or fewer employees.⁵²⁰

175. *700 MHz Guard Band Licensees.* In the 700 MHz Guard Band Order, we adopted a small business size standard for “small businesses” and “very small businesses” for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.⁵²¹ A “small business” as an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$15 million for the preceding three years. Additionally, a “very small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$3 million for the preceding three years. An auction of 52 Major Economic Area (MEA) licenses commenced on September 6, 2000, and closed on September 21, 2000.⁵²² Of the 104 licenses auctioned, 96 licenses were sold to nine bidders. Five of these bidders were small businesses that won a total of 26 licenses. A second auction of 700 MHz Guard Band licenses commenced on February 13, 2001 and closed on February 21, 2001. All eight of the licenses auctioned were sold to three bidders. One of these bidders was a small business that won a total of two licenses.⁵²³

176. *Rural Radiotelephone Service.* The Commission has not adopted a size standard for small businesses specific to the Rural Radiotelephone Service.⁵²⁴ A significant subset of the Rural Radiotelephone Service is the Basic Exchange Telephone Radio System (BETRS).⁵²⁵ The Commission uses the SBA’s small business size standard applicable to “Cellular and Other Wireless Telecommunications,” *i.e.*, an entity employing no more than 1,500 persons.⁵²⁶ 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 adopted herein.

177. *Air-Ground Radiotelephone Service.* The Commission has not adopted a small business size standard specific to the Air-Ground Radiotelephone Service.⁵²⁷ We will use SBA’s small business

⁵¹⁹*Trends in Telephone Service* at Table 5.3.

⁵²⁰*Id.* The SBA size standard is that of Paging, 13 C.F.R. § 121.201, NAICS code 517211.

⁵²¹*See Service Rules for the 746-764 MHz Bands, and Revisions to part 27 of the Commission’s Rules*, WT Docket No. 99-168, Second Report and Order, 15 FCC Rcd 5299, 5344, para. 108 (2000).

⁵²²*See generally* Public Notice, “220 MHz Service Auction Closes,” Report No. WT 98-36 (Wireless Telecommunications Bureau, Oct. 23, 1998).

⁵²³Public Notice, “700 MHz Guard Band Auction Closes,” DA 01-478 (rel. Feb. 22, 2001).

⁵²⁴The service is defined in § 22.99 of the Commission’s Rules, 47 C.F.R. § 22.99.

⁵²⁵BETRS is defined in §§ 22.757 and 22.759 of the Commission’s Rules, 47 C.F.R. §§ 22.757 and 22.759.

⁵²⁶13 C.F.R. § 121.201, NAICS code 517212.

⁵²⁷The service is defined in § 22.99 of the Commission’s Rules, 47 C.F.R. § 22.99.

size standard applicable to “Cellular and Other Wireless Telecommunications,” *i.e.*, an entity employing no more than 1,500 persons.⁵²⁸ There are approximately 100 licensees in the Air-Ground Radiotelephone Service, and we estimate that almost all of them qualify as small under the SBA small business size standard.

178. *Aviation and Marine Radio Services.* Small businesses in the aviation and marine radio services use a very high frequency (VHF) marine or aircraft radio and, as appropriate, an emergency position-indicating radio beacon (and/or radar) or an emergency locator transmitter. The Commission has not developed a small business size standard specifically applicable to these small businesses. For purposes of this analysis, the Commission uses the SBA small business size standard for the category “Cellular and Other Telecommunications,” which is 1,500 or fewer employees.⁵²⁹ 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.⁵³⁰ 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.

179. *Fixed Microwave Services.* Fixed microwave services include common carrier,⁵³¹ private operational-fixed,⁵³² and broadcast auxiliary radio services.⁵³³ At present, there are approximately 22,015 common carrier fixed licensees and 61,670 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services. The Commission has not created a size standard for a small

⁵²⁸13 C.F.R. § 121.201, NAICS codes 517212.

⁵²⁹13 CFR § 121.201, NAICS code 517212.

⁵³⁰Amendment 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).

⁵³¹See 47 C.F.R. §§ 101 *et seq.* (formerly, Part 21 of the Commission's Rules) for common carrier fixed microwave services (except Multipoint Distribution Service).

⁵³²Persons 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.

⁵³³ 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.

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 “Cellular and Other Telecommunications,” which is 1,500 or fewer employees.⁵³⁴ The Commission does not have data specifying the number of these licensees that have more than 1,500 employees, and thus is unable at this time to estimate with greater precision the number of fixed microwave service licensees that would qualify as small business concerns under the SBA’s small business size standard. Consequently, the Commission estimates that there are up to 22,015 common carrier fixed licensees and up to 61,670 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services that may be small and may be affected by the rules and policies adopted herein. We noted, however, that the common carrier microwave fixed licensee category includes some large entities.

180. *Offshore Radiotelephone Service.* This service operates on several UHF television broadcast channels that are not used for television broadcasting in the coastal areas of states bordering the Gulf of Mexico.⁵³⁵ There are presently approximately 55 licensees in this service. We are unable to estimate at this time the number of licensees that would qualify as small under the SBA’s small business size standard for “Cellular and Other Wireless Telecommunications” services.⁵³⁶ Under that SBA small business size standard, a business is small if it has 1,500 or fewer employees.⁵³⁷

181. *Wireless Communications Services.* This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses. The Commission established small business size standards for the wireless communications services (WCS) auction. A “small business” is an entity with average gross revenues of \$40 million for each of the three preceding years, and a “very small business” is an entity with average gross revenues of \$15 million for each of the three preceding years. The SBA has approved these small business size standards.⁵³⁸ The Commission auctioned geographic area licenses in the WCS service. In the auction, there were seven winning bidders that qualified as “very small business” entities, and one that qualified as a “small business” entity. We conclude that the number of geographic area WCS licensees affected by this analysis includes these eight entities.

182. *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.⁵³⁹ 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.⁵⁴⁰ The SBA has approved these small business size standards.⁵⁴¹ The auction of the 2,173 39 GHz

⁵³⁴13 C.F.R. § 121.201, NAICS code 517212.

⁵³⁵This service is governed by Subpart I of Part 22 of the Commission’s Rules. See 47 C.F.R. §§ 22.1001-22.1037.

⁵³⁶13 C.F.R. § 121.201, NAICS code 517212.

⁵³⁷*Id.*

⁵³⁸See Letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC, from Aida Alvarez, Administrator, SBA (Dec. 2, 1998).

⁵³⁹See 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*, 63 FR 6079 (Feb. 6, 1998).

⁵⁴⁰*Id.*