

counts that reflect product lines not involved in telecommunications, as defined by the 1996 Act, and also includes overlapping firm counts and firms deliberately commingled to avoid disclosing the value of individual firms' equipment shipments for the reporting period.

PRODUCT CLASS/CODE	PRODUCT DESCRIPTION	ESTIMATED FIRM COUNT	COMMENTS
36611	Switching and switchboard equipment	84	Includes central office switching equipment, PBX equipment, cellular mobile switching equipment.
36613	Carrier line equipment and modems	89	Includes repeaters, multiplex equipment, channel banks, subscriber loop and carrier line equipment, and modems.
36614	Other telephone and telegraph equipment	215	Includes single line, ISDN, key and public pay telephone sets, cordless handsets, data communications equipment, video conferencing equipment, voice and call message processing equipment, call distributors, facsimile equipment.
36631	Communications systems and equipment	346	Includes mobile cellular equipment, conventional and trunked system equipment, SONET-standard equipment.
36632	Broadcast, studio, and related electronic equipment	172	Includes cable equipment possibly used to provide telephone service, such as subscriber equipment.
35715	Personal computers and workstations	89	Includes personal computers with CPE capabilities.
35716	Portable computers	35	Typically with attached display.

PRODUCT CLASS/CODE	PRODUCT DESCRIPTION	ESTIMATED FIRM COUNT	COMMENTS
35771	Computer peripheral equipment, not elsewhere classified	259	Excludes common storage, scanning, and other peripherals itemized in census source document. Intended to include peripherals used for telecommunication function, and specialized CPE used in conjunction with computers. Includes keyboards, manual input devices such as mouses and scanners, voice recognition equipment (88 firms).
36798	Printed circuit assemblies	648	Includes communications printed board assemblies (211 firms) and "other electronics," including office equipment and point of sales (182 firms) that would commonly involve telecommunications functions.
35751	Computer terminals	57	Includes remote batch terminals, displays, etc. For distributed computer systems involved in telecommunications, remote terminals and other components are probably essential to ensuring accessible telecommunications capabilities.
35772	Parts and subassemblies for computer peripherals and input/output equipment	72	Includes funds transfer devices and point of sale terminals (29 firms).

2. Software

Due to the convergence between telecommunications equipment, telecommunications services and the software used to control and regulate each, software developers and producers may be viewed as regulated entities under Section 255. This is particularly true of software that is used to make traditional telecommunications devices operate with CPE designed for

specific disabilities.¹⁴ We seek comment on the impact of our proposed rules on the small businesses within this industrial category.

3. Telecommunications Service Entities

a. Introduction

Commenters are requested to provide information regarding how many providers of telecommunications services, existing and potential, will be considered small businesses. The SBA has defined a small business for Radiotelephone Communications (SIC 4812) and Telephone Communications, Except Radiotelephone (SIC 4813), to be small entities when they have fewer than 1,500 employees.

We seek comment as to whether this definition is appropriate in this context. Additionally, we request each commenter to identify whether it is a small business under this definition. If the commenter is a subsidiary of another entity, this information should be provided for both the subsidiary and the parent corporation or entity.

The United States Bureau of the Census reports that, at the end of 1992, there were 3,497 firms engaged in providing telephone services, for at least one year. This number contains a variety of different categories of carriers, including local exchange carriers, interexchange carriers, competitive access providers, cellular carriers, other mobile service carriers, operator service providers, pay telephone providers, personal communications services (PCS) providers, covered specialized mobile radio providers, and resellers. It seems certain that some of those 3,497 telephone service firms may not qualify as small entities or small incumbent local exchange carriers (LECs)¹⁵ because they are not "independently owned and operated." For example, a PCS provider that is affiliated with an interexchange carrier (IXC) having more than 1,500 employees would not meet the definition of a small business. We tentatively conclude that fewer than 3,497 telephone service firms are small entity telephone service firms or small incumbent local exchange carriers.

¹⁴ See Notice at paras. 81-85.

¹⁵ See *infra* Section C.3.b.(1).

According to the Telecommunications Industry Revenue: Telecommunications Relay Service Fund Worksheet Data (*TRS Worksheet*), there are 3,459 interstate carriers.¹⁶ These carriers include, *inter alia*, local exchange carriers, wireline carriers and service providers, interexchange carriers, competitive access providers, operator service providers, pay telephone providers, providers of telephone toll service, providers of telephone exchange service, and resellers.

b. Wireline Carriers and Service Providers

The SBA has developed a definition of small entities for telephone communications companies except radiotelephone (wireless) companies. The Census Bureau reports that, there were 2,321 such telephone companies in operation for at least one year at the end of 1992.¹⁷ According to the SBA definition, as we have noted, a small business telephone company other than a radiotelephone company is one employing fewer than 1,500 persons. All but 26 of the 2,321 non-radiotelephone companies listed by the Census Bureau were reported to have fewer than 1,000 employees.

Thus, even if all 26 of those companies had more than 1,500 employees, there would still be 2,295 non-radiotelephone companies that might qualify as small entities or small incumbent LECs. We do not have information regarding the number of carriers that are not independently owned and operated, and thus are unable at this time to estimate with greater precision the number of wireline carriers and service providers that would qualify as small business concerns under the SBA definition. Consequently, we estimate that there are fewer than 2,295 small telephone communications companies other than radiotelephone companies.

(1) Incumbent Local Exchange Carriers

Neither the Commission nor SBA has developed a definition for small providers of local exchange services. The closest applicable definition under the SBA rules is for telephone communications companies other than radiotelephone (wireless) companies.¹⁸ The

¹⁶ Federal Communications Commission, Common Carrier Bureau, Industry Analysis Division, Carrier Locator: Interstate Service Providers, Figure 1 (Types of Interstate Service Providers) (Nov. 1997) (*TRS Data*).

¹⁷ U.S. Department of Commerce, Bureau of the Census, 1992 Census of Transportation, Communications, and Utilities: Establishment and Firm Size, at Firm Size 1-123 (1995) (1992 Census).

¹⁸ 13 C.F.R. § 121.201 (SIC 4813).

most reliable source of information regarding the number of LECs nationwide of which we are aware appears to be the data that we collect annually in connection with the *TRS Worksheet*. According to our most recent data, 1,376 companies reported that they were engaged in the provision of local exchange services.¹⁹ Although it seems certain that some of these carriers are not independently owned and operated, or have more than 1,500 employees, we are unable at this time to estimate with greater precision the number of LECs that would qualify as small business concerns under the SBA definition. Consequently, we estimate that there are fewer than 1,376 small incumbent LECs.

Because the small incumbent LECs subject to these rules are either dominant in their field of operations or are not independently owned and operated, they are excluded (consistent with our prior practice) from the definition of "small entity" and "small business concerns."²⁰ Accordingly, our use of the terms "small entities" and "small businesses" does not encompass small incumbent LECs.²¹ Out of an abundance of caution, however, for regulatory flexibility analysis purposes, we will consider small incumbent LECs within this analysis and use the term "small incumbent LECs" to refer to any incumbent LEC that arguably might be defined by SBA as a "small business concern."

(2) Interexchange Carriers

Neither the Commission nor SBA has developed a definition of small entities specifically applicable to providers of interexchange services. The closest applicable definition under the SBA rules is for telephone communications companies except radiotelephone (wireless) companies. The most reliable source of information regarding the number of IXCs nationwide is the data that we collect annually in connection with the *TRS Worksheet*. According to our most recent data, 149 companies reported that they were engaged in the provision of interexchange services.²² We do not have information on the

¹⁹ *TRS Data*.

²⁰ See Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98, First Report and Order, 11 FCC Rcd 15499, 16144-45, 16150 (paras. 1328-30, 1342) (1996), *aff'd in part and vacated in part sub nom. Iowa Utilities Board v. FCC*, 109 F3d 418 (8th Cir. 1996), *amended on reh'g on other grounds*, 120 F3d 753 (8th Cir. 1997), *petition for cert.granted sub nom. AT&T Corp. v. Iowa Utilities Bd.*, 118 S.Ct. 879 (1998).

²¹ See *id.* at 16150 (para. 1342).

²² *TRS Data*.

number of carriers that are not independently owned and operated, nor have more than 1,500 employees, and thus we are unable at this time to estimate with greater precision the number of IXCs that would qualify as small business concerns under the SBA definition. Consequently, we estimate that there are fewer than 149 small entity IXCs.

(3) Competitive Access Providers and Competitive Local Exchange Carriers

Neither the Commission nor SBA has developed a definition of small entities specifically applicable to providers of competitive access services (CAPs) and competitive local exchange carriers (CLECs). The closest applicable definition under the SBA rules is for telephone communications companies except radiotelephone (wireless) companies. The most reliable source of information regarding the number of CAPs and CLECs nationwide is the data that we collect annually in connection with the *TRS Worksheet*. According to our most recent data, 119 companies reported that they were engaged in the provision of competitive access services.²³ We do not have information on the number of carriers that are not independently owned and operated, nor have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of CAPs that would qualify as small business concerns under the SBA definition. Consequently, we estimate that there are fewer than 119 small CAPs.

(4) Operator Service Providers

Neither the Commission nor SBA has developed a definition of small entities specifically applicable to providers of operator services. The closest applicable definition under the SBA rules is for telephone communications companies except radiotelephone (wireless) companies. The most reliable source of information regarding the number of operator service providers nationwide is the data that we collect annually in connection with the *TRS Worksheet*. According to our most recent data, 27 companies reported that they were engaged in the provision of operator services.²⁴ We do not have information on the number of carriers that are not independently owned and operated, nor have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of operator service providers that would qualify as small business concerns under the SBA

²³ *Id.*

²⁴ *Id.*

definition. Consequently, we estimate that there are fewer than 27 small operator service providers.

(5) Pay Telephone Providers

Neither the Commission nor SBA has developed a definition of small entities specifically applicable to pay telephone providers. The closest applicable definition under SBA rules is for telephone communications companies except radiotelephone (wireless) companies. The most reliable source of information regarding the number of pay telephone providers nationwide is the data that we collect annually in connection with the *TRS Worksheet*. According to our most recent data, 533 companies reported that they were engaged in the provision of pay telephone services.²⁵ We do not have information on the number of carriers that are not independently owned and operated, nor have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of pay telephone providers that would qualify as small business concerns under SBA definition. Consequently, we estimate that there are fewer than 533 small pay telephone providers.

(6) Resellers (Including Debit Card Providers)

Neither the Commission nor SBA has developed a definition of small entities specifically applicable to resellers. The closest applicable SBA definition for a reseller is a telephone communications company except radiotelephone (wireless) companies. However, the most reliable source of information regarding the number of resellers nationwide is the data that the Commission collects annually in connection with the *TRS Worksheet*. According to our most recent data, 345 companies reported that they were engaged in the resale of telephone service.²⁶ We do not have information on the number of carriers that are not independently owned and operated, nor have more than 1,500 employees, and thus we are unable at this time to estimate with greater precision the number of resellers that would qualify as small entities or small incumbent LEC concerns under the SBA definition. Consequently, we estimate that there are fewer than 345 small entity resellers.

c. International Service Providers

²⁵ *Id.*

²⁶ *Id.*

The Commission has not developed a definition of small entities applicable to licensees in the international services. Therefore, the applicable definition of small entity is the definition under the SBA rules applicable to Communications Services, Not Elsewhere Classified (NEC).²⁷ This definition provides that a small entity is expressed as one with \$11.0 million or less in annual receipts. According to the Census Bureau, there were a total of 848 communications services, NEC, in operation in 1992, and a total of 775 had annual receipts of less than \$9.999 million.²⁸ The Census report does not provide more precise data. Many of these services do not have specified uses and it is uncertain, at this point in time, if they will ultimately provide telecommunications services.

(1) International Public Fixed Radio (Public and Control Stations)

There are 15 licensees in this service.²⁹ We do not request or collect annual revenue information, and thus are unable to estimate the number of international public fixed radio licensees that would constitute a small business under the SBA definition.

(2) Fixed Satellite Transmit/Receive Earth Stations

There are approximately 4,200 earth station authorizations, a portion of which are Fixed Satellite Transmit/Receive Earth Stations.³⁰ We do not request or collect annual revenue information, and thus are unable to estimate the number of the earth stations that would constitute a small business under the SBA definition.

(3) Fixed Satellite Small Transmit/Receive Earth Stations

²⁷ 13 C.F.R. § 120.21 (SIC 4899). See also FCC News Release, "Broadcast Station Totals as of December 31, 1997," released Jan. 23, 1998.

²⁸ Economic Census Industry and Enterprise Receipts Size Report, Table 2D, SIC 4899 (U.S. Bureau of the Census data under contract to the Office of Advocacy of the U.S. Small Business Administration). The amount of \$10 million was used to estimate the number of small business establishments because there was no Census category closer to \$11 million. Thus, the number is as accurate as it is possible to calculate with the available information.

²⁹ See Assessment and Collection of Regulatory Fees for Fiscal Year 1997, MD Docket No. 96-186, Notice of Proposed Rulemaking, 12 FCC Rcd 7168, 7197 (Att. A, Initial Regulatory Flexibility Analysis) (1997).

³⁰ *Id.*

There are 4,200 earth station authorizations, a portion of which are Fixed Satellite Small Transmit/Receive Earth Stations.³¹ We do not request or collect annual revenue information, and thus are unable to estimate the number of fixed satellite transmit/receive earth stations may constitute a small business under the SBA definition.

(4) Fixed Satellite Very Small Aperture Terminal (VSAT) Systems

These stations operate on a primary basis, and frequency coordination with terrestrial microwave systems is not required. Thus, a single "blanket" application may be filed for a specified number of small antennas and one or more hub stations. The Commission has processed 377 applications.³² We do not request or collect annual revenue information, and thus are unable to estimate of the number of VSAT systems that would constitute a small business under the SBA definition.

(5) Mobile Satellite Earth Stations

There are two licensees.³³ We do not request or collect annual revenue information, and thus are unable to estimate whether either of these licensees would constitute a small business under the SBA definition.

(6) Space Stations (Geostationary)

Commission records reveal that there are 37 space station licensees.³⁴ We do not request or collect annual revenue information, and thus are unable to estimate of the number of geostationary space stations that would constitute a small business under the SBA definition.

(7) Space Stations (Non-Geostationary)

³¹ *Id.*

³² *Id.*

³³ *Id.*

³⁴ *Id.*

There are six Non-Geostationary Space Station licensees, of which only one system is operational.³⁵ We do not request or collect annual revenue information, and thus are unable to estimate of the number of non-geostationary space stations that would constitute a small business under the SBA definition.

d. Wireless Telecommunications Service Providers

The Commission has not yet developed a definition of small entities with respect to the provision of CMRS services. Therefore, for entities not falling within other established SBA categories (i.e., Radiotelephone Communications or Telephone Communications, Except Radiotelephone), the applicable definition of small entity is the definition under the SBA rules applicable to the "Communications Services, Not Elsewhere Classified" category. This definition provides that a small entity is one with \$11.0 million or less in annual receipts.³⁶ The Census Bureau estimates indicate that of the 848 firms in the "Communications Services, Not Elsewhere Classified" category, 775 are small businesses. It is not possible to predict which of these would be small entities (in absolute terms or by percentage) or to classify the number of small entities by particular forms of service.

(1) Cellular Radio Telephone Service

The Commission has not developed a definition of small entities applicable to cellular licensees. Therefore, the applicable definition of small entity is the definition under the SBA rules applicable to radiotelephone companies. This definition provides that a small entity is a radiotelephone company employing no more than 1,500 persons.³⁷ The size data provided by SBA does not enable us to make a meaningful estimate of the number of cellular providers which are small entities because it combines all radiotelephone companies with 500 or more employees.³⁸

³⁵ *Id.*

³⁶ 13 C.F.R. § 120.21 (SIC 4899).

³⁷ 13 C.F.R. § 121.201 (SIC 4812).

³⁸ U.S. Small Business Administration 1992 Economic Census Employment Report, Bureau of the Census, U.S. Department of Commerce, SIC Code 4812 (radiotelephone communications industry data adopted by the SBA Office of Advocacy).

We therefore have used the 1992 Census of Transportation, Communications, and Utilities, conducted by the Bureau of the Census, which is the most recent information available. That census shows that only 12 radiotelephone firms out of a total of 1,178 such firms which operated during 1992 had 1,000 or more employees.³⁹ Therefore, even if all 12 of these large firms were cellular telephone companies, all of the remainder were small businesses under the SBA definition. We assume that, for purposes of our evaluations and conclusions in this IRFA, all of the current cellular licensees are small entities, as that term is defined by SBA. In addition, although there are 1,758 cellular licenses, we do not know the number of cellular licensees, since a cellular licensee may own several licenses.

(2) Broadband Personal Communications Service

The broadband PCS spectrum is divided into six frequency blocks designated A through F. Pursuant to Section 24.720(b) of the Commission's Rules,⁴⁰ the Commission has defined "small entity" for Block C and Block F licensees as firms that had average gross revenues of less than \$40 million in the three previous calendar years. This regulation defining "small entity" in the context of broadband PCS auctions has been approved by SBA.⁴¹

The Commission has auctioned broadband PCS licenses in all of its spectrum blocks A through F. We do not have sufficient data to determine how many small businesses under the Commission's definition bid successfully for licenses in Blocks A and B. As of now, there are 89 non-defaulting winning bidders that qualify as small entities in the Block C auction and 93 non-defaulting winning bidders that qualify as small entities in the D, E, and F Block auctions. Based on this information, we conclude that the number of broadband PCS licensees that would be affected by the proposals in the Notice includes the 182 non-defaulting winning bidders that qualify as small entities in the C, D, E, and F Block broadband PCS auctions. Note that the number of successful bidders is not necessarily equivalent to the number of licensees, yet it is the best indicator that is currently available.

³⁹ U.S. Bureau of the Census, U.S. Department of Commerce, 1992 Census of Transportation, Communications, and Utilities, UC92-S-1, Subject Series, Establishment and Firm Size, Table 5, Employment Size of Firms: 1992, SIC 4812 (issued May 1995).

⁴⁰ 47 C.F.R. § 24.720(b).

⁴¹ See Implementation of Section 309(j) of the Communications Act — Competitive Bidding, PP Docket No. 93-253, Fifth Report and Order, 9 FCC Rcd 5532, 5581-84 (1994).

(3) Specialized Mobile Radio

Pursuant to Section 90.814(b)(1) of the Commission's Rules,⁴² the Commission has defined "small entity" for geographic area 800 MHz and 900 MHz Specialized Mobile Radio (SMR) licenses as firms that had average gross revenues of less than \$15 million in the three previous calendar years. This regulation defining "small entity" in the context of 800 MHz and 900 MHz SMR has been approved by SBA.⁴³

The proposals set forth in the Notice may apply to SMR providers in the 800 MHz and 900 MHz bands. We do not know how many firms provide 800 MHz or 900 MHz geographic area SMR service, or how many of these providers have annual revenues of less than \$15 million.

The Commission recently held auctions for geographic area licenses in the 900 MHz SMR band. There were 60 winning bidders who qualified as small entities under the Commission's definition in the 900 MHz auction. Based on this information, we conclude that the number of geographic area SMR licensees affected by the proposals set forth in the Notice includes these 60 small entities.

Based on the auctions held for 800 MHz geographic area SMR licenses, there were 10 small entities currently holding 38 of the 524 licenses for the upper 200 channels of this service. However, the Commission has not yet determined how many licenses will be awarded for the lower 230 channels in the 800 MHz geographic area SMR auction. There is no basis to estimate, moreover, how many small entities within the SBA definition will win these licenses. Given the facts that nearly all radiotelephone companies have fewer than 1,000 employees and that no reliable estimate of the number of prospective 800 MHz SMR licensees can be made, we assume, for purposes of our evaluations and conclusions in this

⁴² 47 C.F.R. § 90.814(b)(1).

⁴³ See Amendment of Parts 2 and 90 of the Commission's Rules to Provide for the Use of 200 Channels Outside the Designated Filing Areas in the 896-901 MHz and the 935-940 MHz Bands Allotted to the Specialized Mobile Radio Pool, PR Docket No. 89-553, Second Order on Reconsideration and Seventh Report and Order, 11 FCC Rcd 2639, 2693-2702 (1995); Amendment of Part 90 of the Commission's Rules to Facilitate Future Development of SMR Systems in the 800 MHz Frequency Band, PR Docket No. 93-144, GN Docket No. 93-252, PP Docket No. 93-253, First Report and Order, Eighth Report and Order, and Second Further Notice of Proposed Rulemaking, 11 FCC Rcd 1463 (1995).

IRFA, that all of the licenses will be awarded to small entities, as that term is defined by SBA.

(4) 220 MHz Service

Licensees for 220 MHz services that meet the definition of CMRS may be providers of telecommunications service. The Commission has classified providers of 220 MHz service into Phase I and Phase II licensees. There are approximately 3,800 non-nationwide Phase I licensees and 4 nationwide licensees currently authorized to operate in the 220 MHz band.⁴⁴ The Commission has estimated that there are approximately 900 potential Phase II licensees.⁴⁵ These licenses were scheduled to be auctioned in May 1998, but the auction has been delayed pending resolution of petitions for reconsideration.⁴⁶

At this time, however, there is no basis upon which to estimate definitively the number of 220 MHz service licensees, either current or potential, that are small businesses. To estimate the number of such entities that are small businesses, we apply the definition of a small entity under SBA rules applicable to radiotelephone companies. This definition provides that a small entity is a radiotelephone company employing no more than 1,500 persons.⁴⁷ However, the size data provided by the SBA do not allow us to make a meaningful estimate of the number of 220 MHz providers that are small entities because they combine all radiotelephone companies with 500 or more employees.⁴⁸

⁴⁴ See Amendment of Part 90 of the Commission's Rules to Provide for the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service, PR Docket No. 89-552, GN Docket No. 93-252, PP Docket No. 93-253, Third Report and Order, Fifth Notice of Proposed Rulemaking, 12 FCC Rcd 10943 (1997) at 11095 (*220 MHz Third Report and Order*).

⁴⁵ Public Notice, "FCC Announces Delay of 220 MHz Service Auction," DA 98-526, released March 17, 1998.

⁴⁶ *Id.*

⁴⁷ 13 C.F.R. § 121.201 (SIC 4812).

⁴⁸ 1992 Economic Census Employment Report, Bureau of the Census, U.S. Department of Commerce, Table 3, SIC Code 4812 (industry data adapted by the Office of Advocacy for the U.S. Small Business Administration).

We therefore use the 1992 Census of Transportation, Communications, and Utilities, conducted by the Bureau of the Census, which is the most recent information available. Data from the Census Bureau's 1992 study indicate that only 12 out of a total 1,178 radiotelephone firms which operated during 1992 had 1,000 or more employees — and these may or may not be small entities, depending on whether they employed more or less than 1,500 employees.⁴⁹ But 1,166 radiotelephone firms had fewer than 1,000 employees and, therefore, under the SBA definition, are small entities. However, we do not know how many of these 1,166 firms are likely to be involved in the provision of 220 MHz service.

(5) Mobile Satellite Services (MSS)

Mobile Satellite Services or Mobile Satellite Earth Stations are intended to be used while in motion or during halts at unspecified points. These stations operate as part of a network that includes a fixed hub or stations. The stations that are capable of transmitting while a platform is moving are included under Section 20.7(c) of the Commission's Rules⁵⁰ as mobile services within the meaning of Sections 3(27) and 332 of the Communications Act.⁵¹ Those MSS services are treated as CMRS if they connect to the Public Switched Network (PSN) and also satisfy other criteria of Section 332. Facilities provided through a transportable platform that cannot move when the communications service is offered are excluded from Section 20.7(c).⁵²

The MSS networks may provide a variety of land, maritime and aeronautical voice and data services. There are eight mobile satellite licensees.⁵³ At this time, we are unable to make a precise estimate of the number of small businesses that are mobile satellite earth station licensees and could be considered CMRS providers of telecommunications service.

(6) Paging

⁴⁹ U.S. Bureau of the Census, U.S. Department of Commerce, 1992 Census of Transportation, Communications, and Utilities, UC92-S-1, Subject Series, Establishment and Firm Size, Table 5, Employment Size of Firms; 1992, SIC 4812 (issued May 1995).

⁵⁰ 47 C.F.R. § 20.7(c).

⁵¹ 47 U.S.C. §§ 153(27), 332.

⁵² 47 C.F.R. § 20.7(c).

⁵³ TRS Data.

Private and Common Carrier Paging. The Commission has proposed a two-tier definition of small businesses in the context of auctioning licenses in the Common Carrier Paging and exclusive Private Carrier Paging services. Under the proposal, a small business will be defined as either (1) an entity that, together with its affiliates and controlling principals, has average gross revenues for the three preceding years of not more than \$3 million, or (2) an entity that, together with affiliates and controlling principals, has average gross revenues for the three preceding calendar years of not more than \$15 million. Because the SBA has not yet approved this definition for paging services, we will utilize the SBA's definition applicable to radiotelephone companies, i.e., an entity employing no more than 1,500 persons.⁵⁴ At present, there are approximately 24,000 Private Paging licenses and 74,000 Common Carrier Paging licenses. According to the most recent Telecommunications Industry Revenue data, 364 carriers reported that they were engaged in the provision of either paging or other mobile services, which are placed together in the data.⁵⁵ We do not have data specifying the number of these carriers that are not independently owned and operated or have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of paging carriers that would qualify as small business concerns under the SBA's definition. Consequently, we estimate that there are fewer than 364 small paging carriers that may be affected by the proposed rules, if adopted. We estimate that the majority of private and common carrier paging providers would qualify as small entities under the SBA definition.

(7). Narrowband PCS

The Commission has auctioned nationwide and regional licenses for narrowband PCS. The Commission does not have sufficient information to determine whether any of these licensees are small businesses within the SBA-approved definition. At present, there have been no auctions held for the MTA and Basic Trading Area (BTA) narrowband PCS licenses. The Commission anticipates a total of 561 MTA licensees and 2,958 BTA licensees will be awarded in the auctions. Those auctions, however, have not yet been scheduled. Given that nearly all radiotelephone companies have fewer than 1,500 employees and that no reliable estimate of the number of prospective MTA and BTA narrowband licensees can be made, we

⁵⁴ 13 CFR § 121.201 (SIC 4812).

⁵⁵ *TRS Data*.

assume that all of the licensees will be awarded to small entities, as that term is defined by the SBA.⁵⁶

(8) Air-Ground Radiotelephone Service

The Commission has not adopted a definition of small business specific to the Air-Ground Radiotelephone Service, which is defined in Section 22.99 of the Commission's rules.⁵⁷ Accordingly, we will use the SBA definition applicable to radiotelephone companies, *i.e.*, an entity employing no more than 1,500 persons.⁵⁸ 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 definition.

(9) Local Multipoint Distribution Service (LMDS)

LMDS licensees may use spectrum for any number of services. It is anticipated that the greatest intensity of use will be for either radio telephone or pay television services. SBA has developed definitions applicable to each of these services, however, because pay television is not a telecommunications service subject to Section 255, it is not relevant to this IRFA.

The Commission has not developed a definition of small entities applicable to LMDS licensees, which is a new service.⁵⁹ In the *LMDS Order* we adopt criteria for defining small businesses for determining bidding credits in the auction, but we believe these criteria are applicable for evaluating the burdens imposed by Section 255. We define a small business as an entity that, together with affiliates and controlling principals, has average gross revenues not exceeding \$40 million for the three preceding years.⁶⁰ Additionally, small entities are those which together with affiliates and controlling principals, have average gross revenues for the three preceding years of more than \$40 million but not more than \$75 million.⁶¹

⁵⁶ 13 C.F.R. § 121.201 (SIC 4812).

⁵⁷ See Section 22.99 of the Commission's Rules, 47 C.F.R. § 22.99.

⁵⁸ 13 C.F.R. § 121.201 (SIC 4812).

⁵⁹ Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services, CC Docket No. 92-297, Second Report and Order, Order on Reconsideration, and Fifth Notice of Proposed Rulemaking, 12 FCC Rcd 12545 (1997) (*LMDS Order*).

⁶⁰ See *LMDS Order*, 12 FCC Rcd at 12690 (para. 348).

⁶¹ *Id.*

Upon completion of the auction 93 of the 104 bidder qualified as small entities, smaller businesses, or very small businesses. These 93 bidders won 664 of the 864 licenses. We estimate that all of these 93 bidders would qualify as small under the SBA definitions, but we cannot yet determine what percentage would be offering telecommunications services.

(10) Rural Radiotelephone Service

The Commission has not adopted a definition of small entity specific to the Rural Radiotelephone Service. A significant subset of the Rural Radiotelephone Service is the Basic Exchange Telephone Radio Systems (BETRS).⁶² We will use the SBA's definition applicable to radiotelephone companies, i.e., an entity employing no more than 1,500 persons.⁶³ There are approximately 1,000 licensees in the Rural Radiotelephone Service, and we estimate that almost all of them qualify as small entities under the SBA's definition.

(11) 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. 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 includes these eight entities.

(12) 39 GHz Band

The Commission has not developed a definition of small entities applicable to 39 GHz band licensees. Therefore, the applicable definition of small entity is the definition under the SBA rules applicable to radiotelephone companies. This definition provides that a small entity is a radiotelephone company employing no more than 1,500 persons.⁶⁴ Since the Regulatory Flexibility Act amendments were not in effect until the record in this proceeding

⁶² BETRS is defined in Sections 22.757 and 22.759 of the Commission's Rules, 47 C.F.R. §§ 22.757, 22.759.

⁶³ 13 C.F.R. § 121.201 (SIC 4812).

⁶⁴ *Id.*

was closed, the Commission was unable to request information regarding the potential number of small businesses interested in the 39 GHz frequency band and is unable at this time to determine the precise number of potential applicants which are small businesses.

The size data provided by SBA does not enable us to make a meaningful estimate of the number of cellular providers which are small entities because it combines all radiotelephone companies with 500 or more employees.⁶⁵ We therefore have used the 1992 Census of Transportation, Communications, and Utilities, conducted by the Bureau of the Census, which is the most recent information available. That census shows that only 12 radiotelephone firms out of a total of 1,178 such firms which operated during 1992 had 1,000 or more employees.⁶⁶ Therefore, a majority of 39 GHz entities providing radiotelephone services could be small businesses under the SBA definition.

However in the *39 GHz Band NPRM and Order*,⁶⁷ we proposed to define a small business as an entity that, together with affiliates and attributable investors, has average gross revenues for the three preceding years of less than \$40 million. We have not yet received approval by the SBA for this definition. We assume, for purposes of our evaluations, that nearly all of the 39 GHz licensees will be small entities, as that term is defined by the SBA.⁶⁸

D. Reporting, Recordkeeping, and Other Compliance Requirements

As we have noted, the objective of Section 255 is for persons with disabilities to have increased access to telecommunications. Both equipment manufacturers and telecommunications service providers are obligated to provide accessibility for persons with any one or more of different disabilities to the extent that it is readily achievable for them to do so. So, in the broadest sense, compliance consists of the on-going, disciplined, and

⁶⁵ U.S. Small Business Administration 1992 Economic Census Employment Report, Bureau of the Census, U.S. Department of Commerce, SIC 4812 (radiotelephone communications industry data adopted by the SBA Office of Advocacy).

⁶⁶ U.S. Bureau of the Census, U.S. Department of Commerce, 1992 Census of Transportation, Communications, and Utilities, UC92-S-1, Subject Series, Establishment and Firm Size, Table 5, Employment Size of Firms: 1992, SIC 4812 (issued May 1995).

⁶⁷ 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, Notice of Proposed Rulemaking and Order, 11 FCC Rcd 4930, 4971-72 (paras. 87-88) (1996) (*39 GHz Band NPRM and Order*).

⁶⁸ 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 and Second Notice of Proposed Rulemaking, at 18677-79 (App. B, Regulatory Flexibility Analysis) (1997).

systematic effort to provide the greatest level of accessibility. Much of the Notice deals with behaviors which demonstrate that such effort and would be looked upon favorably in the event of a filed complaint.

The only actual recordkeeping requirement that the Commission proposes is for each covered entity to provide a point of contact for referral of consumer problems. This person would represent the covered entity during the "fast-track problem-solving" phase which would precede the filing of any form of complaint. In the Notice we suggest and seek comment on a one-week period in which the manufacturer or service provider should resolve the customer's problem. Although we wish to encourage speedy responses, we recognize that there may be circumstances which call for an extension of the time period. In such instances, the Commission reserves the discretion to grant requests. We seek comment on whether the one-week time period, and whether the informal means of requesting extensions would be disproportionately burdensome on small businesses.

Despite the lack of any formal recordkeeping requirement, in order to respond to "fast-track" inquiries, companies may chose to keep records at their own discretion on the way the company has chosen to implement its own disability initiatives. This self-imposed recordkeeping will enable them to respond in a more timely fashion. Likewise we seek comment on whether this implicit burden needs to be recognized, and, if so, whether there is a disproportionate impact on small businesses.

An additional recordkeeping requirement for which we seek comment would be to have equipment manufacturers acknowledge their Section 255 obligations on the same form used for filing for equipment authorization with the Office of Engineering and Technology.⁶⁹ Similarly, we seek comment on which of the filings for telecommunications service providers would provide a comparable opportunity to indicate awareness of their own Section 255 obligations. Another option, beyond the scope of Section 255 and thus requiring a separate rulemaking, might be to design a consolidated form to be used by service providers for reporting *all* required information to the Commission and including awareness of entities' Section 255 obligations as one small part. Although we perceive the Section 255 reporting burden to be minimal, as in checking off a box on a form required for other purposes, we request comment on how such requirements can be modified to reduce the burden on small entities and still meet the objectives of this proceeding.

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

⁶⁹ See Subpart J of Part 2 of the Commission Rules, 47 C.F.R. §§ 2.901-2.1093.

In the *Notice of Inquiry*, we sought comment on three possible approaches for implementing and enforcing the provisions of Section 255: (1) rely on case-by-case determinations; (2) issue guidelines or a policy statement; or (3) promulgate rules setting forth procedural or performance requirements intended to promote accessibility.⁷⁰

The Notice principally proposes procedural requirements as a practical, commonsense means to ensure that consumers with disabilities have access to telecommunications services and equipment.

The use of case-by-case determinations exclusively, in lieu of any rules, was considered but tentatively discarded in the Notice because it was believed that in a rapidly changing market with unpredictable technological breakthroughs, the slow development of case law would not be sufficient to guide covered entities to an understanding of their accessibility obligations.

The issuance of guidelines or a policy statement was also considered but tentatively discarded, because of our view that a greater degree of regulatory and administrative certainty will best serve the interests of both consumers and businesses (including covered entities) that must comply with Section 255. Guidelines or a policy statement might serve the purpose of informing case-by-case determinations in complaint proceedings and lending some predictability of outcomes in these proceedings. Moreover, the Commission tentatively decided that, in order for accessibility to be addressed in a pro-active manner, equipment manufacturers and service providers should have clear expressions of the demands Section 255 places on their operations before the beginning of the design process. The Commission tentatively concluded, however, that the potential drawbacks of exclusive reliance on case-by-case determinations as a means of implementing Section 255 would not be sufficiently diminished by the adoption of guidelines or a policy statement.

Also considered and tentatively rejected by the Commission was the option of promulgating specific performance requirements. Such an approach — under which the Commission would attempt to establish an array of specific parameters for features and functions across a broad range of telecommunications services and equipment — was viewed as potentially burdensome to covered entities, as well as being fraught with other potential problems. For example, rapid changes in technology could make Commission performance requirements obsolete in rapid fashion. This would make it necessary for the Commission to frequently revise its performance requirements in order to attempt to keep pace with these

⁷⁰ Implementation of Section 255 of the Telecommunications Act of 1996: Access to Telecommunications Services, Telecommunications Equipment, and Customer Premises Equipment by Persons with Disabilities, WT Docket No. 96-198, Notice of Inquiry, 11 FCC Rcd 19152, 19163 (para. 7) (1996) (*Notice of Inquiry*).

technological changes. These frequent revisions would impose burdens on covered entities and potentially cause confusion in the telecommunications marketplace. In addition, we tentatively have decided that the promulgation of rules governing the design process, would impose burdens on covered entities whose resources would be better spent in achieving and improving accessibility.

As a result of our tentative decision to rely primarily on procedural rules, we have taken several steps to minimize burdens on all regulated entities. First, we have sought to provide incentives to industry for early and on-going consideration of accessibility issues. In particular, we will look favorably upon efforts to implement the Access Board's guidelines such as formalizing self-assessment, external outreach, internal management, and user information and support to address accessibility issues.⁷¹ Second, we have attempted to unravel the statutory terminology to give guidance on the interpretation of key language within the telecommunications context. For example, "readily achievable" is explored in great depth to explicate feasibility, expense, and practicality elements.⁷² Third, we have intended to fashion efficient, consumer-friendly means of dealing with problems. By instituting a pre-complaint process in a fast-track, problem-solving phase, we are attempting to implement the objectives of the statute in a cooperative, as opposed to adversarial, manner.⁷³ We welcome comments on the extent to which the tentative approach we have adopted in the Notice is likely to further the goals of Section 255 without creating an unfair economic impact on small entities.

We believe we have reduced burdens wherever possible. For burdens imposed by achieving accessibility, the structure of the statute inherently acknowledges varying degrees of economic impact. The "readily achievable" standard is proportional, not absolute, thereby adjusting the burden of providing accessible features to be commensurate with the resources of the covered entity.

For burdens associated with enforcement, the innovation of the "fast-track" problem solving phase is an outgrowth of the desire to find immediate, practical solutions to consumers' problems in obtaining accessible or compatible equipment and services. It is anticipated that the pre-complaint process will significantly reduce the number of complaints, thus minimizing the burden on all covered entities of providing a legal defense. Furthermore, the range of choices for resolving complaints is designed to reduce costs to the opposing

⁷¹ See Notice at paras. 164-166.

⁷² See Notice at Section IV.B.5.b (paras. 100-123).

⁷³ See Notice at Section V.B (paras. 126-143).

parties. Encouraging the use of streamlined informal complaints or alternative dispute resolution processes is primarily to benefit individual plaintiffs who may be persons with disabilities with limited financial resources, but should similarly enable covered entities to defend at lesser cost.

To minimize any negative impact, however, we seek comment on the nature of incentives for small entities, which will redound to their benefit. We will continue to examine alternatives in the future with the objectives of eliminating unnecessary regulations and minimizing significant economic impact on small entities. We seek comment on significant alternatives interested parties believe we should adopt.

F. Federal Rules Which Overlap, Duplicate, or Conflict with These Rules

As stated above, Section 255(e) directs the Access Board to develop equipment accessibility guidelines "in conjunction with" the Commission, and to periodically review and update the guidelines. We view these guidelines as a starting point for the implementation of Section 255, but because they do not cover telecommunications services, we must necessarily adapt these guidelines in our comprehensive implementation scheme. As such, it is our tentative view that our proposed rules do not overlap, duplicate, or conflict with the Access Board Final Rule, 36 C.F.R. Part 1193.

Separate Statement of Commissioner Harold W. Furchtgott-Roth**In re: Notice of Proposed Rulemaking****Implementation of Section 255 of the Telecommunications Act of 1996 -- Access to Telecommunications Service, Telecommunications Equipment, and Customer Premises Equipment by Persons with Disabilities.**

Today we initiate a proceeding to adopt rules to implement yet another important section of the Telecommunications Act of 1996. I support this action.

In this proceeding, the Commission will develop new rules to enable persons with disabilities to participate in the telecommunications revolution that has become such an important facet of our society and economy. I look forward to adopting these rules later this year.

My support for new regulations may be somewhat surprising, for I have the well-deserved reputation of one who often favors *de*-regulation. A more accurate characterization of my views, however, is that I favor *rational* regulation. This rationality is achieved only when the benefits of our rules significantly outweigh the costs of our rules.

Undoubtedly, the new rules we eventually adopt in this proceeding will impose some costs on industry and consumers. Nevertheless, I am confident that, in meeting the requirements of the Telecommunications Act, we will adopt rules that have benefits that significantly exceed these costs. In addition, this particular area of regulation may well be a rare instance of where the involvement of federal government introduces efficiencies unlikely to develop in the market. Thus, we have here an opportunity for rational regulation and an appropriate role for the federal government.

SEPARATE STATEMENT OF COMMISSIONER MICHAEL POWELL

Re: Implementation of Section 255 of the Telecommunications Act of 1996 -- Access to Telecommunications Services, Telecommunications Equipment, and Customer Premises Equipment by Persons with Disabilities, Notice of Proposed Rulemaking (WT Docket No. 96-198)

It is the law, and should be the law, that manufacturers of telecommunications equipment and customer premises equipment (CPE) and providers of telecommunications services shall ensure that such equipment and services are accessible to and usable by individuals with disabilities. If accessibility is not "readily achievable," manufacturers and service providers are required to ensure that their equipment or service is compatible with existing peripheral devices or specialized customer premises equipment commonly used by individuals with disabilities to achieve access. It is the Commission's job (exclusively) to enforce this law, which Congress in its wisdom included in the historic 1996 Telecommunications Act.

It is only right that Congress included this provision (section 255) in the Act. It is understood that as it unleashed a largely unregulated and highly competitive telecommunications industry, it needed to ensure that people with disabilities were not strewn aside in the battle for customers and subscribers. It is only right that manufacturers and service providers should be ready, willing and able to step up to welcome and accept this task to ensure that a significant portion of their customers are properly accommodated -- without the need for significant government intrusion into their businesses. And, it is only right that this Commission must set forth rules, guidelines and enforcement procedures so that the industry and, especially, individuals with disabilities, know how to comply with the law and what to expect from the agency tasked to enforce it.

I fully expect (and will demand) that every industry participant will comply with the letter and the spirit of this law. I know that this is an area where free market forces alone are unlikely to address the specific needs of individuals, who solely because of life's unpredictability and randomness find themselves restricted by physical adversity. This is an area where government can help this community enjoy the fruits of independence that the seeds of telecommunications can yield and that the Act envisioned. The principle of universal service is ultimately inclusion, and the disabled community should not be overlooked.

I know personally the frustrations of being relegated to the outskirts of "normal" society because of the inability to access the necessary instruments of daily life, for I suffer from physical limitations that resulted from a serious jeep accident. I recall vividly the feelings of helplessness brought on by the inability to help myself with basic life functions. I recall during my year-long convalescence, preferring the hospital over my home: home was

the real world of difficult stairways to navigate, rather than the ramps of the hospital, it was bathrooms that were a nightmare to get to and use, and it was inhospitable beds and chairs. It was a place where I watched fully functional people move easily in and out of every day, living normal unencumbered lives. I can easily imagine how it must feel to be unable to even make a phone call.

As the Commission seeks to accommodate the needs of the disabled, however, we must be careful in our zeal not to stigmatize those that section 255 was designed to help, and we must be careful to avoid creating disincentives for those in industry that actually can help. This is why I strongly support the proposed "fast-track" problem solving process and guiding principles laid out in this Notice. This process emphasizes timely and informal resolution, with the promise that the vast majority of accessibility problems will be resolved by the manufacturer or service provider without the need for resort to formal "complaints."

I look forward to reviewing the comments in this proceeding and welcome any and all suggestions on how the Commission can improve upon the enforcement procedures we propose so that this important law we are tasked with enforcing will be subject to the fullest compliance.