Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Section 257 Proceeding to	)	
Identify and Eliminate	)	GN Docket No. 96-113
Market Entry Barriers	)	
for Small Businesses	)	

REPORT

Adopted: May 8, 1997 Released: May 8, 1997

By the Commission: Commissioner Chong issuing separate statement.

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I. INTRODUCTION AND STATEMENT OF POLICY

1. Section 257 of the Telecommunications Act of 1996 (Telecommunications Act or 1996 Act)[1] requires the Commission to identify and eliminate "market entry barriers for entrepreneurs and other small businesses in the provision and ownership of telecommunications services and information services, or in the provision of parts or services to providers of telecommunications services and information services."[2] In carrying out this mandate, the Commission must "promote the policies and purposes of this Act favoring diversity of media voices, vigorous economic competition, technological advancement, and promotion of the public interest, convenience and necessity."[3]

2. This *Report* summarizes the Commission's implementation of Section 257, describes our strong commitment to continue to achieve its statutory goals, and outlines steps

[1] Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996), Section 257.

[2] 47 U.S.C. § 257(a). Section 257 requires completion of the market entry barriers proceeding within fifteen months of enactment of the 1996 Act, which is May 8, 1997.

[3] 47 U.S.C. § 257(b). In addition, every three years following the completion of the market entry barriers proceeding, the Commission must report to Congress on regulations that have been issued to eliminate barriers and any statutory barriers that the Commission recommends be eliminated. 47 U.S.C. § 257(c).

we plan to take in the future. Over the years, the Commission has undertaken various initiatives to advance opportunities for small businesses.[4] We have been implementing Section 257 agency-wide since its enactment on February 8, 1996. Our actions demonstrate our intention to comply fully with the congressional directive of Section 257 and to advance the clear pro-competitive and deregulatory goals of the 1996 Act. Specifically, we have acted to identify and eliminate market entry barriers for small businesses, to remove or reduce impediments, and to increase opportunities for small business participation in the telecommunications market. The Commission also has taken numerous measures designed to enhance new entry, competition, and innovation in the telecommunications market generally, most or all of which should benefit small businesses as well. The *Report* details all of these efforts. Many of the measures described below occurred apart from this *Report* in other Commission proceedings or through agency access and outreach endeavors, in which we integrated the mandate and policy goals of Section 257.

3. The *Report* also demonstrates our commitment to achieving the policy goals of Section 257(b). As described below, the Commission has taken a variety of measures to fulfill the four national policy objectives set forth in Section 257(b). First, with respect to "vigorous economic competition," we have defined the term "market entry barrier" in a manner that facilitates entry by small businesses yet avoids unwarranted regulatory intervention that could distort a competitive marketplace.[5] By including only those impediments that significantly distort market operations and harm consumer welfare within the definition of "market entry barriers," the Commission has recognized that economically unjustified intervention actually would thwart the policy goal of promoting vigorous competition.

4. Second, to promote "technological advancement," the Commission has taken steps to eliminate outdated, unnecessary, or burdensome requirements and procedures. We have undertaken substantial efforts to disseminate information to small entities and entrepreneurs about Commission processes and communications opportunities, and to increase access to Commission decisionmakers. We also have made additional spectrum available which in turn should spur technological advancement. These actions should foster the transfer of innovative ideas from the research laboratory to the consumer marketplace, and thereby advance technological development. Third, we will continue to consider the policy favoring "diversity of media voices," in our review of broadcast ownership rules and

[4] *See infra* n.12 at 6285-98.

[5] *See infra* ¶¶ 12-19.

in other appropriate contexts,[6] as well as in our further evaluation of issues relating to small businesses owned by women or minorities.[7] Finally, we anticipate that our Section 257 actions thus far, combined with our ongoing commitment to enhance opportunities for small businesses, will promote the fourth policy goal of serving the "public interest, convenience, and necessity" by expediting entry in the telecommunications market, encouraging development of new, innovative communications services, facilitating the availability of services in various geographic markets, and contributing to a vibrant, competitive telecommunications marketplace.

5. This *Report* also reflects our independent recognition of the crucial role that small businesses play in the U.S. economy. As we already emphasized earlier in this proceeding, small businesses not only constitute the vast majority of all employers in this country, but are able to innovate faster than larger firms and to serve niche markets that may not be served by large corporations.[8] Small businesses contribute 47% of all sales in the United States, are responsible for 50% of the private gross domestic product, employ 53% of the private workforce, and produced an estimated 75% of the 2.5 million new jobs created during 1995.[9] Small businesses also produce more than twice the number of innovations per employee as large firms. In addition, while only 3% of the employees in large enterprises work in research and development, 19% of the employees in comparable small enterprises with intellectual property work in research and development.[10] Despite their important role, small businesses represent only a small portion of the businesses in telecommunications.[11]

6. We initiated an omnibus Section 257 proceeding in May 1996 by adopting a *Notice of Inquiry*. *Section 257 Proceeding to Identify and Eliminate Market Entry Barriers*

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[6] *See infra* ¶¶ 190-194 & 196.

[7] *See infra* ¶¶ 221-225.

[8] *See infra* n.12 at 6283-84.

[9] U.S. Small Business Administration, *The Facts About Small Business*, information pamphlet FS0040, dated Aug. 1996 (*SBA Facts*).

[10] *Id.*

[11] *See* Small Business Administration Comments at 5-9. For example, in 1991, 93% of firms in high-technology industries were small (fewer than 500 employees) but had only 19% of total industry receipts. *SBA Facts*.

for Small Businesses (Market Entry Barriers Notice of Inquiry).[12] We asked how to define small businesses, requested profile data about the characteristics of small telecommunications businesses, inquired about market entry barriers for small businesses generally, and asked whether small businesses owned by minorities or women face unique market entry barriers. Over 80 entities filed comments. The commenters represent every sector of the telecommunications market and include individual entrepreneurs, small businesses, large communications companies, associations, federal and state government representatives, telecommunications policy groups, women's organizations, and minority interests.[13] Three parties -- American Mobile Telecommunications Association, Small Business in Telecommunications and the National Wireless Resellers Association -- conducted independent surveys of their members and provided survey results in their comments.[14] Finally, in conjunction with this proceeding, the Office of General Counsel and the Office of Communications Business Opportunities (OCBO) held a public forum on September 24,

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[12] *Market Entry Barriers Notice of Inquiry*, 11 FCC Rcd 6280 (1996).

[13] A list of parties and the abbreviations of each used in this *Report* is provided in Appendix A.

[14] American Mobile Telecommunications Association Comments at 1-11 (50 survey respondents); Small Business in Telecommunications Comments at 62-66 (10,000 surveys sent); National Wireless Resellers Association Comments at 3 (19 survey respondents). *See also* Shark Testimony at 1-2. We discuss the survey results in various sections below. American Mobile Telecommunications Association is a nationwide, non-profit trade association representing the interests of the specialized wireless communications industry. Its members include trunked and conventional 800 MHz and 900 MHz Specialized Mobile Radio (SMR) operators, licensees of wide-area SMR systems, and commercial licensees in the 220 MHz band. American Mobile Telecommunications Association states that its members provide commercial wireless services throughout the country and include a significant number of entities that would qualify as "small business" under even the most stringent definition. Small Business in Telecommunications is a non-profit trade association representing paging companies, tower owners, private carriers, commercial mobile radio service operators, microwave licensees and community repeater operators. The association limits voting rights to persons and companies with annual revenues of less than $20 million. National Wireless Resellers Association represents resellers of cellular, long-distance, paging, landline local exchange, personal communications, and specialized mobile radio services. The majority of respondents to its survey report annual gross revenues of $15 million or less.

1996.[15] The panelists represented small telecommunications businesses, associations, government entities, public interest organizations, and the financial and advertising industries.[16]

7. In October 1996, when the formal comment period closed in the omnibus Section 257 proceeding,[17] we began immediately to evaluate the barriers and impediments identified by the commenters, and to consider the specific suggestions in the record, which relate to every communications service within our jurisdiction. Many of the parties' recommendations concern other ongoing Commission rulemakings, and therefore, must be addressed and resolved under the timeframes and in the context of the records in those separate proceedings.

8. However, we have adopted many of the commenters' principal proposals. We also have initiated other measures. As described in this *Report*, some of our key measures implementing Section 257 to date are: deciding to use service-specific definitions of small businesses, rather than adopting a general definition; planning new initiatives that will better enable small businesses to file comments and participate in Commission proceedings; requiring the Bureaus and Offices to ensure that our rulemaking processes enable meaningful comment on Commission proposals and their impact on small businesses; instituting rulemaking proceedings so as to ensure effective and prompt enforcement of the Communications Act and our rules; reducing information filing and other burdens that create obstacles to entry for small businesses; ensuring that the Commission fully considers the interests of small carriers in proceedings to determine funding mechanisms for universal service support; adopting licensing incentives to facilitate small business participation in spectrum auctions; adopting and proposing policies that permit geographic partitioning and

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[15] FCC Public Notice, *Forum on Small Business Market Entry Barriers*, No. 64975 (Sept. 5, 1996) (*Market Entry Barriers Forum*).

[16] *See* Appendix A (identifies panelists at the *Market Entry Barriers Forum*).

[17] The original filing deadlines established for the *Market Entry Barriers Notice of Inquiry* were July 24, 1996 (comments) and August 23, 1996 (reply comments). In response to subsequent public requests, we twice extended the original filing deadlines. *Section 257 Proceeding to Identify and Eliminate Market Entry Barriers for Small Businesses,* Order, DA96-1100 (released July 9, 1996) (extending deadlines to August 23, 1996 (comments) and September 12, 1996 (reply comments)); *Section 257 Proceeding to Identify and Eliminate Market Entry Barriers for Small Businesses,* Order, DA96-1433 (released Aug. 23, 1996) (extending deadlines to September 27, 1996 (comments) and October 11, 1996 (reply comments)).

spectrum disaggregation in various wireless communications services; adopting spectrum initiatives to encourage technological innovation by equipment manufacturers and others; speeding resolution of complaints; sponsoring conferences on telecommunications services and financing options; increasing public access to the Commission through technology by creating sites on the World Wide Web and establishing the National Call Center; and making continued efforts to ensure that the Telecommunications Development Fund (TDF or Fund) becomes an effective vehicle for removing financial obstacles to entry.

9. The record in our omnibus Section 257 proceeding thus has provided valuable information to assist us in reducing market entry barriers, and increasing entry and expansion of small businesses in the telecommunications market. It is our goal, through the measures described in this *Report* and our ongoing implementation of Section 257, to facilitate delivery to the telecommunications industry the attributes and benefits that small businesses have brought to other sectors of the economy. As this *Report* demonstrates, we shall give careful consideration to the commenters' recommendations as we proceed to vigorously pursue the statutory objective of eliminating obstacles to entry and thereby to ensure a vibrant and strong telecommunications marketplace.[18]

10. We point out that this *Report* focuses primarily on initiatives that relate to small businesses generally. As explained below, prior to taking any action specifically oriented to small businesses owned by women or minorities, we must fully evaluate the Section 257 record according to the constitutional requirements that govern action by the federal government based on race (strict scrutiny) or gender (intermediate scrutiny).[19] We are currently evaluating these issues and expect to release a more extensive report later this year. As part of this evaluation, we are conducting a comprehensive study of the participation of small businesses, including those owned by women and minorities, in the telecommunications market.

11. This *Report* contains several parts. Beginning with Part II, we discuss obstacles to entry identified by commenters that affect small telecommunications businesses as a whole: financial impediments,[20] and general regulatory obstacles, which include

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[18] Because we are implementing Section 257 on a continuing basis and through various Commission proceedings, the absence of discussion in this *Report* of any identified barrier, obstacle, proposal, or other comment from the record in this docketed proceeding thus far does not mean that we are not still considering the idea or that we have rejected it.

[19] *See infra* Part IV.

[20] *See infra* ¶¶ 35-51.

difficulties in obtaining access to Commission decisionmakers and information about new communications services.[21] We also discuss measures to address these impediments, including establishment of the TDF[22] and outreach efforts by the FCC Office of Public Affairs and Office of Communications Business Opportunities.[23] Part III focuses on obstacles that relate to particular types of communications services: common carrier services,[24] wireless telecommunications services,[25] cable services,[26] mass media services,[27] and international services.[28] Part III also addresses spectrum allocation initiatives,[29] as well as outreach activities of the Commission's Compliance and Information Bureau.[30] Finally, Part IV addresses unique market entry issues experienced by small businesses owned by women or minorities.[31]

II. GENERAL MARKET ENTRY BARRIERS

A. Definitions and Characteristics

1. Definition of "Market Entry Barrier"

12. As discussed above, the purpose of this proceeding is to "identify and eliminate . . . market entry barriers for entrepreneurs and other small businesses" in

[21] *See infra* ¶¶ 52-81.

[22] *See infra* ¶¶ 44-50.

[23] *See infra* ¶¶ 52-81.

[24] *See infra* ¶¶ 82-108.

[25] *See infra* ¶¶ 109-152.

[26] *See infra* ¶¶ 153-177.

[27] *See infra* ¶¶ 178-196.

[28] *See infra* ¶¶ 197-200.

[29] *See infra* ¶¶ 201-205.

[30] *See infra* ¶¶ 206-209.

[31] *See infra* ¶¶ 210-225.

telecommunications markets.[32] Section 257(b) states that in carrying out this task, the Commission "shall seek to promote the policies and purposes of this Act favoring diversity of media voices, vigorous economic competition, technological advancements, and promotion of the public interest, convenience, and necessity."[33]

13. In the *Market Barriers Notice of Inquiry*, we observed that "market entry barriers" could include:

> obstacles that deter individuals from forming small businesses, barriers that impede entry into the telecommunications market by existing small businesses, and obstacles that small telecommunications businesses face in providing service or expanding within the telecommunications industry. . . .[34]

In their comments, parties discussed various kinds of obstacles and impediments that are currently faced by small telecommunications businesses. In this *Report*, we discuss these obstacles and impediments without deciding whether they qualify as "market entry barriers." It is important to note that not all impediments to small business participation in the telecommunications industry qualify as "market entry barriers" relevant to Section 257(a). We also describe several other Commission initiatives to encourage small business participation in the telecommunications industry. In this regard, we believe that this *Report* goes beyond what Section 257(a) requires.

14. America's Carriers Telecommunications Association requests that the Commission construe "market entry barrier" in a commercially effective manner so as to "create a competitive environment which permits small business' ability to expand their market presence once entry has been achieved."[35] The Small Business Administration notes that Section 257 "does not define or limit" the term "market entry barrier" and recommends

[32] 47 U.S.C. § 257(a).

[33] 47 U.S.C. § 257(b).

[34] *Market Barriers Notice of Inquiry*, 11 FCC Rcd at 6283. We also stated that discrimination could be a market entry barrier as well. *Id.* at 6305-6306. *See also infra* ¶¶ 210-225 (addresses unique obstacles facing small telecommunications businesses owned by women or minorities).

[35] America's Carriers Telecommunications Association Comments at 2-3.

that the Commission construe the term "as aggressively as possible."[36] Telecommunications Resellers Association claims that the market "is an effective regulator only if market forces are adequate to discipline the behavior of all market participants; if one or more such participants retains vestiges of market power, regulatory intervention is essential to protect the public interest."[37] It argues further that "[r]egulatory intervention, therefore, continues to be necessary to ensure opportunities for small resale carriers in markets that are still dominated by much larger providers . . . [and that] [s]uch action could be deregulatory, but it also could require regulatory measures."[38]

15. AT&T opposes our original construction of "market entry barrier," stating that the 1996 Act did not intend the Section 257 proceeding "to carve out certain market niches as the preserve of small companies, or to subsidize their competition against larger entities."[39] AT&T points out that barriers to small firm entry may simply result from the fundamental structure of a given market -- for example, a market where there may be efficiencies due to economies of scale, or where a large up-front investment is required to begin operations.[40]

16. From a public policy perspective, and consistent with the "pro-competitive, deregulatory national policy framework" established by Congress in the 1996 Act,[41] we do not regard all impediments or obstacles to small business entry to necessarily be "market entry barriers" that require governmental intervention under Section 257. Instead, we believe that the term "market entry barrier" as used in Section 257(a) is primarily intended to encompass those impediments to entry within the Commission's jurisdiction that justify regulatory intervention because they so significantly distort the operation of the market and harm consumer welfare. Removing these impediments will, in our opinion, facilitate the entry or expansion of small businesses into telecommunications markets as required by Section 257(a) and also fulfill the national policy goals articulated in Section 257(b).

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[36] Small Business Administration Comments at 3.

[37] Telecommunications Resellers Association Comments at 13-14.

[38] *Id.* at 14.

[39] AT&T Comments at 2.

[40] *Id.*

[41] Statement of Managers, S. Conf. Report No. 104-230, 104th Cong., 2nd Sess. 1 (1996) (Joint Explanatory Statement).

17. Our decision that not all obstacles or impediments to small business entry warrant regulatory intervention under Section 257 is consistent with economic teaching and Commission precedent. In particular, economists have not regarded all obstacles and impediments to entry as fitting within the definition of "barrier to entry" and have instead proffered more narrow definitions. Two rival definitions of entry barriers currently dominate industrial organization economics.[42] First, economist J.W. Bain specified three sources of entry barriers in discussing the benefits of incumbency: the absolute cost advantages of an incumbent firm, economies of scale, and product differentiation advantages of an incumbent.[43] In general, Bain viewed the value of incumbency as a "barrier to entry."[44] In contrast, economist George Stigler sought to define a barrier to entry as "a cost of producing . . . which must be borne by a firm which seeks to enter an industry but is not borne by firms already in the industry."[45] More recently, Christian von Weizsacker proposed to restrict Stigler's definition to encompass costs that create inefficiency and thus distort the operation of the market to a sufficient degree that regulatory intervention is warranted.[46]

[42] *See generally Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, First Report, 9 FCC Rcd 7442, Appendix H at 7621-27, ¶¶ 29-44 (1994) (*1994 Cable Competition Report*).

[43] J.W. Bain, *Barriers to New Competition* (1956).

[44] Arguments that the FCC should act affirmatively to counterbalance these benefits of size and incumbency so as to advantage smaller firms reflect the Bainian viewpoint.

[45] George J. Stigler, *The Organization of Industry* 67 (1968).

[46] C.C. von Weizsacker, *A Welfare Analysis of Barriers to Entry*, 11 Bell J. Econ. 400 (1980). Baumol, Panzar and Willig discuss a concept similar to von Weizsacker's, calling those types of impediments as being those of most concern to government. William J. Baumol, John C. Panzar & Robert D. Willing, *Contestable Markets and the Theory of Industry Structure* 282 (1982) ("unlike von Weizsacker's, our definition seeks to specify operationally what types of impediments meet its criteria, [and] we hope to show . . . that our criterion and his overlap in substance. That is, we argue that anything that is an entry barrier by our definition does reduce the sum of consumers' and producers' surplus, while phenomena such as fixed costs and scale economies need not do so.").

The Stigler/von Weizsacker position is roughly analogous to AT&T's position that advantages of size and scope often are beneficial to consumers. Therefore, AT&T contends, an affirmative governmental policy to force viable small-scale entry would not only forego the efficiencies of size and scope but also would be contrary to the intent of Section 257.

18. A critical difference between the Bainian definition and the others involves economies of scale and scope.[47] The Bainian definition would consider economies of scale and scope to be a barrier to entry, while the others would view such economies as a barrier only under certain circumstances. The Stiglerian approach would state that as long as both the incumbent and the entrant can achieve large-scale production facilities at the same cost, economies of scale do not meet the definition of a barrier to entry, but if the cost of achieving scale or scope economies is higher for the entrant than the incumbent, the efficient operation of the market may be affected to the detriment of consumer welfare.[48] At that point, under the Stiglerian approach, economies of scale or scope may act as a barrier to entry.

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[47] An "economy of scale" describes a condition where relatively large producers can produce and market their products at a lower average cost per unit than relatively small producers. *See* F.M. Scherer & David Ross, *Industrial Market Structure and Economic Performance 97* (1990). An "economy of scope" describes a condition where "costs are reduced by producing two or more products jointly, rather than in specialized firms." *Id.* at 361.

[48] The presence of sunk costs can have this effect. Sunk costs are costs that cannot be eliminated even by a total cessation of production. *See* Baumol, Panzar & Willig at 280. For example, the costs of constructing a telecommunications network may be viewed as sunk costs -- that is, the network may not be useful for anything else. If entry into an industry requires large sunk costs, the firm that incurs these sunk costs first (the incumbent) can have a tremendous advantage. Potential new entrants may realize that any large scale facilities-based entry into the market will probably force prices to decrease and those prices may be in fact below the point necessary to recover the sunk cost investment. As a result, facilities-based entry will be deterred. *See* Robert Wilson, *Strategic Models of Entry Deterrence*, 1 *Handbook of Game Theory with Economic Applications* (1992). To counterbalance these entry barriers, the 1996 Act provides two means of entry that do not require competitive local exchange companies to construct complete networks before they can begin to offer services -- the use of unbundled elements of the incumbent's network, and resale. Resale also has been used by entrants to enter other telecommunications markets, such as long-distance. *See Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, First Report and Order, 11 FCC Rcd 15499, 16145 (1996) (*First Local Competition Order*), Order on Reconsideration, 11 FCC Rcd 13042 (1996), *petition for review and partial stay granted sub nom.*, *Iowa Util. Board v. FCC*, No. 96-3221 and consolidated cases (8th Cir. Oct. 15, 1996), *partial stay lifted in part*, *Iowa Util. Board v. FCC*, No. 96-3321 and consolidated cases (8th Cir. Nov. 1, 1996).

19. As explained above, we believe that the term "market entry barrier" as used in Section 257(a) is primarily intended to encompass those impediments to entry within the Commission's jurisdiction that so significantly distort the operation of the market and harm consumer welfare that they justify regulatory intervention. This construction of "market entry barrier" is consistent with the position the Commission has taken in the annual assessment of the state of competition in the cable television industry.[49] It is also consistent with AT&T's view that "not all markets can be easily penetrated by all firms."[50] It is not our objective to make viable small business entry into every sector of the telecommunications and information services industries because there may be legitimate efficiency reasons that favor large-scale operation. Finally, our construction of the term "market entry barrier" does not in any way limit our broad obligation under Section 253 of the Act to preempt state or local legal requirements that "may prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service."[51]

2. *Definition of "Small Business"*

20. In the *Market Entry Barriers Notice of Inquiry*, we requested comment on how small businesses should be defined under Section 257. Specifically, we asked whether we should define the term by the number of employees, gross revenues, net revenues, assets or any other factors. In addition, we asked whether we should adopt a general size standard or a specific standard for particular services. We also sought comment on whether we should use other factors such as minimum capital requirements, debt/equity ratios, cash flow, net worth or other indicia of a business' ability to enter and compete in the marketplace.[52]

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[49] *See 1994 Cable Competition Report,* 9 FCC Rcd at 7622 ("From a public policy perspective, not all impediments, however are necessarily barriers to entry that require some type of government intervention or remediation. For purposes of this *Report*, costs borne by entrants but not incumbents that have adverse effects on consumer welfare are defined as policy-relevant barriers to entry."); *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming,* Second Annual Report, 11 FCC Rcd 2060 at ¶¶ 205-214 (1995); *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming,* Third Annual Report, CS Docket No. 96-133, FCC 96-496 (released Jan. 2, 1997).

[50] AT&T Comments at 2.

[51] 47 U.S.C. § 253(a).

[52] *Market Entry Barriers Notice of Inquiry*, 11 FCC Rcd at 6307.

21. The Commission historically has used a number of different size standards to define small businesses, depending on the particular communications service. For example, in establishing special incentives for small businesses to participate in the Commission's spectrum auctions, we have used a range of size standards, generally depending on the capital requirements of the particular service. Thus, in the broadband Personal Communications Services (PCS) "C" block auction, we limited participation to applicants that, together with their affiliates and persons or entities that hold interests in the applicant and their affiliates, have gross revenues of less than $125 million in each of the last two years and total assets of less than $500 million.[53] A small business was defined as one that, together with its affiliates has average annual gross revenues that are not more than $40 million for the preceding three calendar years.[54] In contrast, for certain other auctionable services, the Commission has adopted tiered size standards.[55]

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[53] 47 C.F.R. § 24.709(a)(1).

[54] 47 C.F.R. § 24.720(b)(1995). The same approach was originally taken with the Broadband PCS "F" block. However, the Commission subsequently adopted a tiered small business definition for this entrepreneur block. *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, 7852 (1996) (*D, E & F Block Competitive Bidding Order*) (defining "small business" using a $40 million threshold and "very small business" using a $15 million threshold).

[55] *See, e.g., Revision of Part 22 and Part 90 of the Commission's Rules to Facilitate Future Development of Paging Systems,* Second Report and Order and Further Notice of Proposed Rulemaking, 12 FCC Rcd 2732, 2811 (1997) (*Paging Second Report and Order*) (small business is defined as an entity that, together with affiliates and controlling principals, has average gross revenues for the three preceding years of not more than $3 million or not more than $15 million); *Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service*, Report and Order, GN Docket No. 96-228, FCC 97-50 (released Feb. 19, 1997) at ¶ 194 (*WCS Report and Order*) (small business is defined as an entity with average gross revenues not exceeding $40 million or $15 million in each of the preceding three years); 47 C.F.R. § 90.912(b)(1) (for purposes of the upper 10 MHz of 800 MHz Specialized Mobile Radio (SMR) service, a small business is defined as one that, together with its affiliates, persons or entities that hold attributable interests in such entity, and their affiliates, has average gross revenues that are not more than $3 million or not more than $15 million for the preceding three years); 47 C.F.R. § 90.814(b)(1) (for purposes of the 900 MHz SMR service, a small business is defined as one that, together with its affiliates, persons or entities that hold attributable interests in such entity, and their affiliates, has average gross revenues that are not more than $3 million or not more than $15 million

22. We also have adopted small business definitions for a variety of purposes other than auctions. For example, in determining eligibility for cable rate regulatory relief under the Communications Act, the Commission defined a "small cable company" as a "cable television operator that serves a total of 400,000 or fewer subscribers over one or more cable systems."[56] In addition, the Commission has exempted broadcast stations with fewer than five employees from annual employment report requirements.[57] Finally, the Commission has used size standards as a basis for analyzing the impact of its rules on small business entities pursuant to the Regulatory Flexibility Act.[58] In this regard, the Commission has relied on a number of different size standards promulgated by the Small Business Administration to determine the number of small businesses affected by its rules.[59]

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for the preceding three years).

[56] 47 C.F.R. § 76.901(e). For purposes of determining eligibility for relief from regulation of cable programming service tier rates, Section 623(m)(2), as added by the Telecommunications Act, subsequently defined "small cable operator" as 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." 47 U.S.C. § 543(m)(2).

[57] 47 C.F.R. § 73.2080. *See also* 47 C.F.R. § 76.79 (cable systems with fewer than six full-time employees are exempt from cable annual employment report requirements).

[58] 5 U.S.C. § 603.

[59] For example, for purposes of an Initial Regulatory Flexibility Analysis for its proposed table of allotments for digital television, the Commission relied on the Small Business Administration's size standards for television business entities. *See Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service*, Sixth Further Notice of Proposed Rulemaking, 11 FCC Rcd 10968, 11060 (1996) (*DTV Sixth Further Notice*). In analyzing the impact of newly promulgated cellular service auction rules, the Commission relied on the Small Business Administration's size standard applicable to radiotelephone carriers. *Implementation of Section 309(j) of the Communications Act -- Competitive Bidding*, Ninth Report and Order, 11 FCC Rcd 14760 (1996). Under this definition, radiotelephone carriers employing no more than 1,500 employees constitute small business concerns under the Small Business Administration's rules. 13 C.F.R. § 121.201. In addition, in our interconnection order, the Commission stated, as it had previously, that incumbent local exchange carriers (LECs) do not constitute small businesses for purposes of the Regulatory Flexibility Act because they are dominant in their field of operation. *First Local Competition Order*, 11 FCC Rcd at 16145.

23. Those parties commenting on the issue of whether we should adopt a general size standard or specific standards for particular services seem to prefer the latter approach. The Small Business Administration argues that the size standards already in place for all types of small telecommunications carriers have served small businesses well and the Commission has not explained why they should be jettisoned for purposes of this proceeding.[60] The Small Business Administration also notes that it would be virtually impossible to develop a single definition of small businesses given the diversity inherent in the telecommunications industry.[61] It argues that a single definition would be contrary to the intent of the Small Business Act, which specifies that the Administrator is to make a detailed definition and that definitions shall vary from industry to industry to the extent necessary to reflect differing characteristics of such industries.[62] Similarly, America's Carriers Telecommunications Association suggests that the Commission fashion policy on the basis of identifiable spheres of services being offered.[63]

24. The Small Business Administration and other commenters also question the Commission's authority to adopt a new small business definition.[64] They argue that, because the 1996 Act does not give the Commission express authority to adopt a small business size standard for the specific purpose of implementing Section 257, the Commission must comply with the Small Business Act's requirement to, among other things, obtain approval from the Small Business Administration Administrator for any new size standards.[65]

25. We agree with those commenters who suggest that the Commission should not adopt a small business definition based on a general size standard. Rather, we believe the more appropriate course is to continue adopting specific size standards tailored to individual services. As the Small Business Administration points out, it would be extremely difficult to create a definition that transcends all of the various services that are implicated by Section 257. The comments also demonstrate that each service has its own characteristics. Different

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[60] Small Business Administration Comments at 11-12.

[61] *Id.* at 12.

[62] *Id.*

[63] America's Carriers Telecommunications Association Comments at 22 n.10.

[64] Small Business Administration Comments at 11; Small Cable Business Association Comments at 22-24.

[65] *Id.* *See also* 15 U.S.C. § 632(a)(2)(C).

services have different levels of capital intensity as a result of many factors, including the method of allocation, service area definitions, and the method of assignment. This necessarily affects the types of incentives we might consider for a particular service and the types of businesses to whom we would offer such incentives.

26. In light of this, we believe that the better approach would be to adopt specific size standards for individual services in proceedings implementing Section 257 incentives. We note that our decision here is consistent with our current approach to adopting small business definitions in the competitive bidding context. In the *Competitive Bidding Second Memorandum Opinion and Order*, the Commission stated that:

> [g]iven the diversity of services that may be subject to competitive bidding and the varied spectrum costs and build-out requirements associated with each, we conclude that it is more appropriate to define the eligibility requirements for small businesses on a service-specific basis, taking into account the capital requirements of each particular service in establishing the appropriate threshold.[66]

27. Recently, we reiterated our belief in this approach in the *Competitive Bidding Part I Rules NPRM*, where we proposed to continue soliciting comments on the appropriate small business size standard in service-specific rulemaking proceedings.[67] We noted that in such rulemakings we would take into consideration the characteristics and capital requirements of each service. We further noted, however, that for purposes of future auctions, we would express small business definitions purely in terms of gross revenues. In this connection, we proposed to adopt size standards expressed so as to require businesses to have gross revenues "not to exceed" particular amounts, and, consistent with the Small Business Act,[68] to base such standards on the applicant's average gross revenues over the

[66] *Implementation of Section 309(j) of the Communications Act -- Competitive Bidding*, Second Memorandum Opinion and Order, 9 FCC Rcd 7245, 7269 (1994) (*Competitive Bidding Second Memorandum Opinion and Order*). We note that we recently proposed to continue this approach when developing competitive bidding rules for specific services. *See Amendment of Part 1 of the Commission's Rules -- Competitive Bidding Proceeding*, Order, Memorandum Opinion and Order and Notice of Proposed Rulemaking, WT Docket No. 97-82, FCC 97-60 (released Feb. 28, 1997) (*Competitive Bidding Part 1 Rules NPRM*) at ¶ 20.

[67] *See Competitive Bidding Part 1 Rules NPRM*, FCC 97-60 at ¶¶ 20-21.

[68] 15 U.S.C. § 632(a).

preceding three years. Accordingly, we will adopt similar service-specific size standards, where appropriate, in future proceedings implementing Section 257 initiatives.

28. Finally, several parties commented on the small business definitions adopted by the Commission for specific services in other contexts and proposed alternative definitions for purposes of Section 257.[69] As we are not now adopting a generic small business definition for purposes of Section 257, we find it unnecessary to address those comments in this report.[70]

3. *Characteristics of Small Telecommunications Businesses*

29. In order to identify and eliminate the market entry barriers or impediments facing small telecommunications businesses, we must also understand the typical needs and characteristics of these businesses. Therefore, in the *Market Entry Barriers Notice of Inquiry*, we requested profile data about small telecommunications businesses, including their

[69] *See, e.g.,* American Mobile Telecommunications Association Comments at 9 (the Commission should define small businesses using a gross revenue test); Community Broadcasters Association Comments at 10 (questioning the Commission's definition of entrepreneur for purposes of the Broadband PCS "C" block auction); Integrated Communications Group Comments at 1-2 (suggesting that the Commission define small business as one with no more than $11 million in annual receipts); Metricom Comments at 1-6 (suggesting that the Commission apply 47 C.F.R. § 24.720(m) (publicly-traded corporation rule) to all services); PCS Alliance Comments at 1 (calling the Commission's definition of entrepreneur for purposes of the Broadband PCS "C" block auction "mystifying"); Thompson PCS Comments at 3 (questioning the Commission's eligibility threshold for Broadband PCS "C" block); National Telephone Cooperative Association Comments at 9 (stating that the Commission should defer to Small Business Administration standards defining a small telecommunications company); Small Business Administration Comments at 14-16 (questioning the Commission's previous conclusion that incumbent LECs are dominant in their field of operation and, therefore, are not small businesses for purposes of the Regulatory Flexibility Act); United States Telephone Association Reply Comments at 2 (suggesting that LECs be declared small businesses if they serve fewer than 2% of the nation's subscriber lines installed in the aggregate nationwide); National Cable Television Association Comments at 17 (suggesting that for purposes of cable television, the Commission use the small business definitions set forth in 47 U.S.C. § 543(m) and 47 C.F.R. § 76.901(e)).

[70] Such comments may, where appropriate, be considered in future proceedings addressing small business definitions.

financing sources, types of services provided, markets served, geographic areas of operation, and information concerning their employee workforces.[71] As discussed below, we received much general information about the nature of small telecommunications businesses, as well as specific profile information on a number of services, including Specialized Mobile Radio (SMR) services, cable television services, and wireless resale services.

30. A number of commenters point out that, in contrast to small businesses in some other industries, small businesses in the telecommunications industry typically are start-up companies that require a significant amount of equity capital or a combination of debt and equity.[72] In addition, Small Business in Telecommunications notes that due to insufficient capitalization, small telecommunications businesses tend to engage in localized operations, serving only a portion of a larger market. Thus, rather than expand their systems geographically, many small telecommunications businesses find that expansion of product and service lines offered in their local markets present more cost-effective methods of revenue enhancement.[73] Small Business in Telecommunications also notes that unlike large companies, small businesses do not have the capital resources to spread costs over an extended period.[74] Thus, they need to earn a profit in a shorter period of time.

31. Other comments appear to support Small Business in Telecommunications' analysis. For example, American Mobile Telecommunications Association's survey indicates that 60% of its members are greatly affected by the reduced access to capital afforded small businesses.[75] Most American Mobile Telecommunications Association members responding to the survey provide SMR service, while others provide a mix of SMR, paging or paging resale; operate community repeaters; sell equipment and repair service; or operate antennas.[76] Most of the respondents appear to fall under at least one of the small business definitions

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[71] *Market Entry Barriers Notice of Inquiry,* 11 FCC Rcd at 6298.

[72] *See, e.g.,* Small Business in Telecommunications Comments at 2; Williams Testimony at 3.

[73] Small Business in Telecommunications Comments at 2-5.

[74] *Id.* at 7.

[75] Shark Testimony at 1.

[76] *Id.*

used by the Commission and the Small Business Administration,[77] and more than 80% emphasized that their smaller asset bases made it difficult to obtain financing. In its comments, American Mobile Telecommunications Association also stated that many of the applicants that dropped out of the 900 MHz SMR auction did so because the costs of acquiring a Major Trading Area (MTA) service area license were too high. However, it notes that these applicants could have or would have purchased spectrum rights to a more limited geographic area.[78]

32. With respect to cable television, the Small Cable Business Association reports that most small cable companies are family-owned businesses. The business structures range from sole proprietorships to small corporations and partnerships.[79] Although most small cable operators provide only multi-channel video programming services, some are entering or seeking to gain entry into new lines of business such as Internet access, other data services, distance learning, and telephony.[80] The typical small cable company serves a rural, low

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[77] For example, for the 900 MHz SMR auction, the Commission defined a small business entity as having no more than $3 million in average gross revenues for the preceding three years or no more than $15 million in average gross revenues for the preceding three years. 47 C.F.R. § 90.814(b). Half of those responding to American Mobile Telecommunications Association's survey reported annual gross revenues of less than $1 million while all of those who responded reported revenues of less than $15 million. Thus, it would appear that most of those responding to American Mobile Telecommunications Association's survey fall within the Commission's small business definition for the 900 MHz SMR service. Similarly, as noted above, under the Small Business Administration's size standards, a radiotelephone communications company is a small business concern if it employs no more than 1,500 employees. *See supra* n.59. Two-thirds of the respondents to American Mobile Telecommunications Association's survey reported fewer than 15 employees. Thus, it would appear that all of the survey respondents would fall under this small business definition promulgated by the Small Business Administration.

[78] American Mobile Telecommunications Association Comments at 11.

[79] Small Cable Business Association Comments at 7.

[80] Small Cable Business Association Comments at 7; National Cable Television Association Comments at 5-6.

density area or a suburban or niche urban market.[81] Thus, as with other services, small cable operators also tend to serve portions of a market or certain niche markets. Because of this, small cable companies often have higher costs of doing business and face a higher cost of capital than their large counterparts.[82] In terms of capital, Small Cable Business Association notes that cable television requires large amounts of capital to expand its array of video programming. To fund this capital requirement, most small cable systems must rely on venture capital firms and on banks, local and national.[83]

33. With respect to common carrier services, America's Carriers Telecommunications Association comments that traditional capital markets are not readily available to most entrepreneurial start-up businesses seeking entry or expansion. It notes that small carriers generally offer traditional outbound and inbound common carrier telephone services, including calling or travel cards, which often incorporate enhanced features, such as facsimile, voice mail, and certain information services. According to America's Carriers Telecommunications Association, these small carriers find it difficult to obtain capital required to acquire their own network facilities.[84] It also asserts that many resale carriers continue to operate on a localized basis defined by the location of their central office(s) and the calling area served thereby. However, it notes that "switchless resale" has made national operations possible for many more carriers.[85] America's Carriers Telecommunications Association also observes that, while in theory no market segment is foreclosed to small carriers, in reality most small carriers are heavily dependent on small business customers, and service to residential and government customers remains mostly within the preserve of incumbent carriers.[86]

34. Finally, a survey of wireless resellers conducted by the National Wireless Resellers Association indicates that most wireless resellers fall under one of the definitions of

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[81] Small Cable Business Association Comments at 7; National Cable Television Association Comments at 5.

[82] National Cable Television Association Comments at 5; Small Cable Business Association Comments at 9.

[83] Small Cable Business Association Comments at 9.

[84] America's Carriers Telecommunications Association Comments at 19.

[85] *Id.* at 18.

[86] *Id.*

small business used by the Commission or the Small Business Administration and that obtaining access to capital is a significant impediment to their operations. For example, using the Commission's $40 million average gross revenue threshold adopted for Personal Communications Services (PCS) and Multipoint Distribution Service (MDS), 69% of the respondents to the National Wireless Resellers Association survey reported annual gross revenues of less than $15 million, while another 16% reported annual gross revenues between $15-50 million.[87] Using the Small Business Administration's size standard for radiotelephone companies (no more than 1,500 employees), National Wireless Resellers Association states that 75% of survey respondents reported employing between one and 100 people. Although the remaining respondents employed more than 100 people, National Wireless Resellers Association states that most likely, these resellers employ less than 500.[88] In terms of services, cellular, long distance and paging appeared to be the primary resale services provided.[89] Sixty-four percent of those responding indicated that they serve at least 5,000 subscribers. Sixty-eight percent of the National Wireless Resellers Association respondents strongly believed that small businesses have less leverage for loans and, therefore, must contribute a larger percentage of their operating capital in order to secure a loan.

B. Financial Impediments

1. The Record

35. As already suggested by the preceding discussion concerning the characteristics of small telecommunications businesses, many parties have identified access to capital as a primary market entry obstacle for small businesses.[90] Given the importance of access to

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[87] National Wireless Resellers Association Comments at 5.

[88] *Id.* at 6.

[89] *Id.* at Appendix A.

[90] Small Business Administration Comments at 3, 5; American Women in Radio and Television and Women of Wireless Comments at 6; CompTel Comments at 4; VoiceTel Comments at 16; Small Business in Telecommunications Comments at 65; Integrated Communications Group Comments at 1, 4; Integration Communications International Comments at 1; B.K. McIntrye Comments at 1-2; Center for Training and Careers Comments at 2; National Paging and Personal Communications Association Comments at 2; Southwest Missouri Cable TV Comments at 3; TRA Communications Consultants Comments at 2-3; Integration Communications International et al. Comments at 1; Romar Comments at

capital, in the *Market Entry Barriers Notice of Inquiry*, we inquired expressly about this issue. Commenters have forwarded much detailed information about financing issues affecting small businesses as well as specific recommendations for Commission action.

36. As indicated earlier, commenters assert that by their nature, small telecommunications businesses tend to be start-up companies or companies in relatively early stages of growth and expansion requiring a significant amount of equity capital or a combination of debt and equity, yet those traditional sources of capital for small businesses are insufficient for today's entry costs.[91] Respondents to the Small Business in Telecommunications survey, for example, identified initial financing as the number one market entry barrier out of 37 possible barriers.[92] The majority of those respondents reported difficulty accessing capital because of their smaller asset base and inability to secure terms and conditions comparable to those obtained by much larger competitors.[93] One party explains that new businesses are not attractive to investors because their start-up costs appear to be excessively high, their revenue streams are poorly defined and uncertain, and their profit margins are unknown.[94] Another states that prospective strategic partners often

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8; Nevadacom Comments at 2; National Women's Law Center Comments at 1; National Cable Television Association Comments at 3; Moore Broadcasting Comments at 1; Small Cable Business Association Comments at 8-9, 14-15; M.L.T. Comments at 1; Grossman Testimony at 2; Williams Testimony at 1-2; Shark Testimony at 1-2; Polka Testimony at 1.

[91] Williams Testimony at 3-4. *See also* Gorman Testimony at 1 (chart shows that the "indicative" cost of capital for start-up companies with zero revenue is 60% p.a.; while it is 35% for a company with $10 million per year revenues and 25% for those with $100 million in revenue).

[92] Small Business in Telecommunications Comments at 65. The ten principal issues the respondents identify as barriers are: (1) initial financing; (2) delays in application processing; (3) spectrum scarcity; (4) legal costs; (5) auctioning of spectrum; (6) speculator licensing/application mills; (7) engineering costs; (8) access to new technology; (9) borrowing terms; and (10) price competition.

[93] American Mobile Telecommunications Association Comments at 9. *Accord* Haycock Testimony at 4 ("As a rule, bigger companies have better borrowing power. Because of their size, they are able to arrange financing from equipment manufacturers and financial institutions more easily, at better interest rates, and on more favorable terms and conditions").

[94] Southwest Missouri Cable Comments at 4.

overlook small businesses "because of the erroneous view that we bring nothing to the table."[95]

37. The record also is replete with comments that small businesses must assume great risks and make personal capital contributions to finance their companies. One commenter states that to obtain start-up financing for her company in 1982 she was required to mortgage her family's home.[96] More generally, in the Small Business in Telecommunications survey, the most commonly reported source of initial capital was personal financing, e.g., savings and family gifts, and Small Business Administration loans.[97] Likewise, more than 80% of the American Mobile Telecommunications Association survey respondents claimed that they had to personally contribute a large percentage of operating capital to their businesses. Eighty-five percent of the respondents stated that they are restricted to cash flow, venture capital or "hard-won" loans to expand their businesses, while larger companies may make public offerings.[98] Sixty-eight percent of the National Wireless Resellers Association survey respondents "strongly agree" that "small businesses have fewer assets and less leverage for loans; and therefore must contribute a larger percentage of their operating capital in order to secure a loan;" and 53% of the respondents "strongly agree" that "small businesses cannot obtain financing through stock sales, and are restricted to cash, bank loans or venture capital."[99] Small Business in Telecommunications also points out that because small business entrepreneurs are not able to spread financial risk over large pools of

[95] Haycock Testimony at 5. *See also* Kansas Star Comments at 1 (stating that attracting strategic partners is important for obtaining financing).

[96] Haycock Testimony at 1.

[97] Small Business in Telecommunications Comments at 4 & n.4. It also claims that small businesses must mortgage homes, that such loans are usually less than $100,000, and that such amount is insufficient to capitalize more than the smallest of telecommunications businesses. For example, the cost of constructing and operating a very small paging company using only three base stations, a terminal, telephone lines, inventory, and minimum administrative costs would consume that initial investment in less than a year. Small Business in Telecommunications Comments at 3.

[98] Shark Testimony at 2. *Accord* Small Cable Business Association Comments at 8-10; Southwest Missouri Cable Comments at 3, 5.

[99] National Wireless Resellers Association Comments at Appendix A, 2.