

STAFF EXECUTIVE SUMMARY

This Executive Summary outlines the purposes and findings of a series of market entry barrier studies released by the Federal Communications Commission (FCC) today. The FCC conducted these studies pursuant to Section 257 of the Telecommunications Act of 1996, 47 U.S.C. § 257, which mandates that the FCC identify and eliminate market entry barriers for small telecommunications businesses, and Section 309(j) of the Communications Act of 1934, 47 U.S.C. § 309(j), which requires the FCC to further opportunities in the allocation of spectrum-based services for small businesses and businesses owned by women and minorities.¹

The studies released today are as follows:

1. Diversity of Programming in the Broadcast Spectrum: Is There a Link Between Owner Race or Ethnicity and News and Public Affairs Programming?: prepared by a team of researchers from Santa Clara University (hereafter “Content/Ownership Study”);
2. Study of the Broadcast Licensing Process: prepared by KPMG LLP Economic Consulting Services; consisting of three parts: History of the Broadcast Licensing Process; Utilization Rates, Win Rates, and Disparity Ratios for Broadcast Licenses Awarded by the FCC; and Logistic Regression Models of the Broadcast License Award Process for Licenses Awarded by the FCC (hereafter “Broadcast Licensing Study”);
3. FCC Econometric Analysis of Potential Discrimination: Utilization Ratios for Minority- and Women-Owned Companies in FCC Wireless Spectrum Auctions: prepared by Ernst & Young LLP (hereafter “Auction Utilization Study”);
4. Study of Access to Capital Markets and Logistic Regressions for License Awards by Auctions: prepared by Professor William Bradford at the University of Washington (hereafter “Capital Markets and Auctions Regression Study”); and
5. Whose Spectrum Is It Anyway? Historical Study of Market Entry Barriers, Discrimination and Changes in Broadcast and Wireless Licensing 1950 to Present: prepared by the Ivy Planning Group LLC (hereafter “Historical Study”).²

¹ In addition, the Commission has full authority and power to conduct an inquiry for “any question [that] may arise under any of the provisions of [the] Act” pursuant to Section 403 of the Act.

² One additional study that was also undertaken as part of this initiative was released in January, 1999. That study was When Being No. 1 Is Not Enough: the Impact of

The Applicable Legal Standards

Section 257 authorizes the Commission to eliminate any identified market entry barriers facing small businesses and businesses owned by women and minorities. Any programs designed to remove specific market entry barriers faced by minority-owned businesses must follow the standards set forth by the Supreme Court in Adarand Constructors, Inc. v. Peña, 515 U.S. 200 (1995). In Adarand, the Supreme Court held that any federal program that uses racial or ethnic criteria as a basis for decision-making must serve a compelling governmental interest, and must be narrowly tailored to serve that interest. Although gender-based classifications need only satisfy intermediate scrutiny, see United States v. Virginia, 518 U.S. 515, 531-33 (1996), the FCC sought to examine together the justifications for implementing race- and gender-conscious measures, because any programs that might be developed would likely assist both women and minorities. If the evidence regarding the experiences of women and minorities would satisfy the strict scrutiny standards applicable to race-based provisions, then any programs the FCC might develop would also be able to meet the intermediate scrutiny test applicable to gender-based classifications. Accordingly, the FCC undertook these studies to help determine whether it has a compelling interest under the strict scrutiny standards to support programs promoting license ownership by women and minorities.³

There are two federal interests that could potentially provide the necessary factual predicate to meet the strict scrutiny test. First, there is the FCC's interest in promoting the broadcast of a diversity of views. It was on this basis that the Supreme Court upheld two FCC programs in Metro Broadcasting, Inc. v. FCC, 497 U.S. 547 (1990). These programs were: (1) an enhancement for minority ownership in comparative hearings for broadcast licenses; and (2) the FCC's distress sale policy, which provided special procedures for the transfer of broadcast licenses to minority owned firms. Through these policies, the FCC sought to promote the broadcast of a diversity of opinions and information by facilitating diversity of ownership among broadcast stations. However, it is not clear whether the Supreme Court would find that this interest is a compelling one. Metro Broadcasting was decided under the intermediate scrutiny standard before Adarand dictated that strict scrutiny should apply to federal programs. Moreover, in the employment context, the United States Court of Appeals for the District of Columbia Circuit has held that promoting broadcast diversity does not constitute a compelling

Advertising Practices On Minority-Owned & Minority-Formatted Broadcast Stations, prepared by the Civil Rights Forum on Communications Policy (hereafter the "Advertising Study"). This study provided substantial anecdotal evidence that advertisers often exclude radio stations serving minority audiences from ad placements and pay them less than other stations when they are included.

³ If the evidence warrants the adoption of programs to promote ownership of FCC licenses by minorities and women, any such programs must also be narrowly tailored to further the particular compelling interest upon which the program is based. The studies only examine the compelling interest prong of the strict scrutiny test, because any narrow tailoring inquiry would be part of the process of developing a specific program.

governmental interest. See Lutheran Church - Missouri Synod v. FCC, 141 F.3d 344 (D.C. Cir.), petition for rehearing denied, 154 F.3d 487, and suggestions for rehearing en banc denied, 154 F.3d 494 (D.C. Cir. 1998). Nonetheless, the Adarand decision only overruled Metro Broadcasting to the extent that it applied intermediate rather than strict scrutiny, Adarand Constructors, Inc. v. Pena, 515 U.S. 200, 227 (1995), and in his dissent in Adarand, Justice Stevens provides a lengthy argument in support of the diversity rationale's ability to survive under strict scrutiny. 515 U.S. at 257-58 (Stevens, J., dissenting).⁴ Accordingly, the possibility that this First Amendment interest would be accepted as compelling has been left open.

Second, there is the FCC's interest in remedying past discrimination. The FCC has already found in the Section 257 proceeding that discrimination can be a market entry barrier. See Market Entry Barriers Notice of Inquiry, 11 FCC Rcd 6283. Moreover, the governmental interest in remedying past discrimination has been found by a majority of the Supreme Court to meet the compelling interest standard. See Adarand, 515 U.S. at 237; City of Richmond v. J.A. Croson Co., 488 U.S. 469, 509 (1989) (plurality opinion); id. at 511 (Stevens, J., concurring in part and concurring in the judgment). As the Supreme Court stated in Adarand, "[t]he unhappy persistence of both the practice and the lingering effects of racial discrimination against minority groups in this country is an unfortunate reality, and government is not disqualified from acting in response to it." 515 U.S. at 237.

To establish such a compelling interest, the governmental actor must show "a strong basis in evidence for its conclusion that remedial action [i]s necessary." Croson, 488 U.S. at 500 (quoting Wygant v. Jackson Board of Educ., 476 U.S. 267, 277 (1986)). It is not sufficient to rely on general societal discrimination. Croson, 488 U.S. at 499. Rather, the government must show that it is remedying either its own discrimination, or discrimination in the private sector in which the government has become a "passive participant." Croson, 488 U.S. at 492 (plurality opinion); id. at 519 (Kennedy, J., concurring in part and concurring in the judgment). Under the passive participant theory, a governmental actor must possess evidence that its own practices are "exacerbating a pattern of prior discrimination," and must "identify that discrimination, public or private, with some specificity," to establish the factual predicate necessary for race-conscious relief. Croson, 488 U.S. at 504. In this regard, an inference of discriminatory exclusion may arise "when there is a significant statistical disparity between the number of qualified minority contractors willing and able to perform a particular service and the number of such contractors actually engaged." Croson, 488 U.S. at 509 (plurality opinion); id. at 530 (Marshall, J., dissenting).

⁴ In addition, at least one federal appeals court has held that promoting diversity can be a compelling government interest. In Wittmer v. Peters, 87 F.3d 916 (7th Cir. 1996), cert. denied, 117 S. Ct. 949 (1997), the Seventh Circuit held that governments may have a compelling interest in ensuring diversity among law enforcement officers, specifically corrections officers. The Court found that it may be necessary to promote diversity to ensure the effectiveness of law enforcement, when a significant percent of the population under the authority of the law enforcement officers are themselves minorities.

The Research Questions Derived from the Legal Standards

The five market entry barrier studies released today explore a series of research questions posed by this strict scrutiny standard. They have been designed to examine both the diversity rationale and the remedial rationale and to evaluate whether the evidence supports them. No single study was designed to provide the definitive answer to this question. Rather, the studies should be evaluated together, along with other studies conducted in the field, to determine whether a compelling interest exists.

To probe the diversity rationale, the Commission contracted for the Content/Ownership Study. Specifically, this study was designed to examine whether the evidence shows that there is a nexus between the race or ethnicity of broadcast licensees and the content of the programming their stations provide. This study initially sought to measure the impact of station owners' gender as well, but the researchers were unable to gather sufficient data for women-owned stations. This study was based on survey data and used a sampling methodology that matched minority-owned stations with majority-owned stations without controlling for format. Additional research may be required to investigate the impact of format and provide further analysis of the impact of demographic and economic data.⁵ The study also asks whether promoting a greater diversity of racial and ethnic groups among owners creates a greater diversity of programming on the airwaves. Given the First Amendment values behind the diversity rationale, the study focuses on speech that courts have held to be at the core of the First Amendment's protections: news and public affairs programming. In this regard, the study also examines whether the race or ethnicity of station owners affects the quantity of public affairs programming and whether it impacts the likelihood of stations to cover particular issues.

The remaining four studies all examine questions raised by the remedial rationale. Here, the FCC must ask whether there has been discrimination against minorities or women in the distribution of FCC licenses, either directly by the FCC, or through the FCC's passive participation in private acts of discrimination.

For the past fifty years, there have been four different methods by which an applicant could obtain an FCC license: comparative hearings, lotteries, auctions, and purchases on the secondary market. The FCC issued broadcast licenses through the comparative hearing process from the late 1940s through 1993, when the program was suspended in the wake of the decision in Bechtel v. FCC, 10 F.3d 875 (D.C. Cir. 1993).⁶ Under this process, singleton applications were granted provided that the applicant met

⁵ However, there are previous studies that provide evidence of a relationship between owner race and the content of programming.

⁶ In Bechtel, the Court held that factors used in the comparative hearings process were "arbitrary and capricious." 10 F.3d at 887. Following that decision, the FCC suspended all further comparative hearings.

basic minimum qualifications. If, however, the Commission received more than one application for a particular station, it referred the matter for a comparative hearing before an administrative law judge. In comparative hearings, the FCC evaluated competing applications for broadcast licenses according to a list of criteria set forth in a 1965 Policy Statement which sought to carry out the Commission's goals of furthering the "best practicable service to the public" and the "maximum diffusion of control of the media of mass communications."⁷ From the late 1970s through the end of comparative hearings, the Commission awarded an enhancement to applicants with ownership interests by minorities and women. Following the suspension of comparative hearings, the Commission turned to auctions for distribution of broadcast licenses. The first broadcast auction was held in 1999.

As for licenses for wireless voice/data services, the FCC has issued these through lotteries and auctions. In 1981, Congress authorized the FCC to assign a broad range of licenses by lottery,⁸ and lotteries were used for several years thereafter. Then in 1993, Congress sharply restricted the FCC's authority to use lotteries and, instead, gave the Commission authority to use auctions to award licenses for the rights to use the radio spectrum.⁹ At present, auctions are the sole method for obtaining commercial licenses – broadcast or wireless – directly from the FCC. Finally, both broadcast and wireless licenses are also available through purchases on the secondary market. When licensees seek to sell or transfer their licenses, Section 310(d) of the Communications Act requires that they seek the Commission's approval. 47 U.S.C. § 310(d). However, Section 310(d) only permits the FCC to determine whether the proposed sale is acceptable, and prohibits the Commission from considering whether any person other than the proposed new licensee would better serve the public interest, convenience, and necessity.

One of the first research questions raised by the remedial rationale is the extent, if any, to which minorities and women may have been underrepresented in obtaining FCC licenses. As noted above, the Supreme Court has recognized that an inference of discrimination may be drawn "when there is a significant statistical disparity between the number of qualified minority contractors willing and able to perform a particular service and the number of such contractors actually engaged." City of Richmond v. J.A. Croson Co., 488 U.S. 469, 509 (1989) (plurality opinion); id. at 530 (Marshall, J., dissenting).

⁷ See Policy Statement on Comparative Broadcast Hearings, 1 F.C.C.2d 393 (1965), modified, 2 F.C.C.2d 667 (1966).

⁸ Omnibus Budget Reconciliation Act of 1981, Pub. L. No. 97-35, 95 Stat. 736-737, amended, Communications Amendment Act of 1982, Pub. L. No. 97-259, § 115, 96 Stat. 1087, added Section 309(i) to the Communications Act. Some broadcast licenses for low power television stations were also distributed by lottery.

⁹ As part of the Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, § 6002, 107 Stat. 312, 387-392, Congress added Section 309(j) to the Communications Act of 1934. 47 U.S.C. §§ 151 et seq.

Following this analysis in Croson, the lower federal courts have relied on a variety of "disparity indices" and "utilization ratios" in assessing whether the government has shown the necessary inference of discrimination.¹⁰ Such data may assist the FCC to ascertain whether the evidence regarding participation by minorities and women in the market for FCC licenses creates "an inference of discriminatory exclusion" under Croson. See 488 U.S. at 509.

Two of the studies examine these utilization issues. The Broadcast Licensing Study calculates various measures of utilization for the distribution of broadcast licenses in the comparative hearing process and the Auction Utilization Study explores utilization measures for the allocation of wireless licenses through auctions. Both of these studies calculate and present multiple measures of utilization, which are explained at length in the reports.

Two points, however, are important to note here. First, in adapting the legal standards for utilization calculations to the FCC licensing context, the studies have followed a conservative approach. Adarand and Croson were both cases involving government contracting. Thus, to determine whether minority owned firms were underrepresented in obtaining government contracts, governments were directed to examine the utilization of minority firms compared to the total pool of qualified firms. See Croson, 488 U.S. at 501-02. In government contracting, this task is facilitated by the fact that most agencies maintain lists of eligible and qualified contractors. Thus, they may evaluate how often the minority and women owned firms win contracts compared to what one might expect based upon the number of such firms in the pool of qualified firms. In FCC licensing, however, there is no such list of qualified potential licensees. Nor are there any requirements for education or experience in order to acquire an FCC license. Thus, there is no readily apparent potential pool of qualified bidders.

Further, in some previous studies seeking to document discrimination in an industry, the researchers have attempted to expand the pool of qualified applicants by including those persons who would have applied had they not been barred by

¹⁰ See, e.g., Contractors Assoc. of Eastern Penn. Inc. v. City of Philadelphia, 6 F.3d 990, 1005, 1007 (3d Cir. 1993) (relies on "disparity index" measuring percentage of minority contractor participation in city contracts divided by the percentage of minority contractor availability in Philadelphia area, to find inference of discrimination sufficient to defeat summary judgment); Associated General Contractors of California, Inc. v. Coalition for Economic Equity, 950 F.2d 1401, 1414-16 (9th Cir. 1991), cert denied, 503 U.S. 985 (1992) (relies upon comparison of percentage of available minority firms and percentage of contracts awarded to such firms to support inference of discrimination sufficient to defeat preliminary injunction against program). It is important to note that the existence of any statistical disparities would not be sufficient to demonstrate discrimination, and this data should not be taken as a suggestion that minorities and women should be represented among FCC licensees in any particular numbers.

discrimination which prevented them from reaching the application stage.¹¹ For example, such persons may have suffered discrimination in obtaining financing, and thus could not form the business entity necessary to compete. "But for" discrimination earlier in the process, these persons would also be included in the applicant pool.

In contrast to such previous studies, in the utilization studies released today, FCC staff directed that researchers follow a conservative approach. Specifically, the pool of qualified bidders was defined as those who actually applied for the licenses. Not only does this approach exclude any discrimination prior to the application stage, but unlike the contracting context, it does not include any pool of qualified bidders who simply chose not to apply for a particular license. In short, these studies attempt to adapt and apply the judicial standards to the licensing context using a narrow definition of the pool of minorities and women who may be "willing and able" under Croson.

In addition, it is important to note that utilization ratios are based upon legal doctrine and the body of case law that has been developed in the wake of the Supreme Court's decision in Croson. Therefore, FCC staff asked contractors to calculate these utilization ratios to satisfy the applicable legal standards. Although utilization ratios are the only calculations widely recognized by the courts, to comport with prevailing econometric practices, the FCC has also asked contractors to supplement these numbers with substantially more rigorous and methodologically sophisticated econometric analysis. Specifically, FCC staff asked contractors to conduct logistic regression analyses to review the licensing process while controlling for relevant control variables. The portion of the Broadcast Licensing Study entitled "Logistic Regression Models of the Broadcast License Award Process for Licenses Awarded by the FCC" presents such calculations for the award of broadcast licenses. The Capital Markets and Auctions Regression Study includes this type of analysis for the award of wireless licenses by auction.

¹¹ See, e.g., Opportunity Denied: A Study of Racial and Sexual Discrimination Related to Government Contracting in New York State at Appendix A pages 32-41 (copy on file with the FCC's Office of Communications Business Opportunities); see also Contractors Ass'n of Eastern Penn. v. City of Philadelphia, 6 F.3d 990, 1008 (3d Cir. 1993) (noting that the small number of firms owned by Hispanic or Asian-American persons "itself may reflect barriers to entry caused in part by discrimination" but requiring statistical evidence to support theory); O'Donnell Constr. Co. v. District of Columbia, 963 F.2d 420, 427 (D.C. Cir. 1992) (same). By contrast, other studies have explicitly avoided making such calculations, and have simply noted this fact. For example, in calculating utilization of minority firms in federal procurement, the Commerce Department chose this latter strategy and noted that when it calculated the relative capacity of minority and non-minority firms, "to the extent that differences in size, age, or number of firms reflect discrimination against small, disadvantaged businesses, this analysis does not take direct account of such discrimination, which may be substantial." 63 Federal Record 35714, 35718.

The second research question under the remedial rationale is whether there is evidence that the FCC was unwittingly a passive participant in private discrimination. As noted above, the Supreme Court in Crosby observed that discrimination requiring remediation could either be discrimination by the governmental actor or by its "passive complicity" in the discrimination of others. Specifically, the research questions presented ask whether the FCC has unwittingly perpetuated patterns of private discrimination through its rules for license allocation? In this regard, the Capital Markets and Auctions Regression Study explores whether and to what extent discrimination in capital markets may have affected applicants for FCC licenses. This study is based on data from a survey of current broadcast licensees and applicants for wireless licenses through FCC auctions. Unfortunately, many survey respondents declined to answer questions regarding their credit ratings, so the study was unable to control for credit ratings in particular. However, the study controls for whether collateral and personal guarantees were required, which reflect, to some extent, credit worthiness. While there already are numerous studies of capital market discrimination in various sectors of the economy, this Study examines the experiences of people seeking financing in connection with their attempts to acquire broadcast and wireless licenses. The study seeks to determine whether firms owned by minorities and women experienced greater difficulty in obtaining funds than did other firms, thereby putting the women and minorities at a competitive disadvantage in obtaining FCC licenses.¹² It also examines whether minorities and women have had to rely on different financial strategies in order to obtain the financing they require. The findings of this study could then assist the FCC in determining whether, for example, auctions have perpetuated patterns of disadvantage created by discrimination in capital markets. Moreover, the Auctions Regression portion of the study explores whether when controlling for other relevant variables, race and gender are statistically significant variables in predicting applicants' success in auctions. This analysis will help determine whether minorities and women have been disadvantaged in obtaining wireless licenses through FCC auctions. A premise of this study is the hypothesis that the failure of minorities and women to qualify as applicants is due in large measure to discrimination in capital markets. An additional premise is that capital market discrimination may have constrained the bidding budgets of minorities and women who have qualified for auctions.

Another study relevant to the passive participation inquiry is the Broadcast Licensing Study, which explores in detail the comparative hearing process for distributing broadcast licenses. The logistic regression portion of this study asks which applicant characteristics were statistically significant in determining the likely license winner. This analysis will help determine whether the FCC's stated criteria for comparative hearings were truly determinative. Moreover, among the numerous variables measured in this study are the applicants' assets, liabilities, and the number of

¹² The Advertising Study, which was released in 1999, see *supra* note 3, examined another type of private discrimination that may disadvantage minorities seeking FCC licenses. Specifically, it explored the extent to which discriminatory practices among advertisers have prevented minority-owned stations from earning the revenues they might otherwise be expected to obtain.

legal motions filed. These variables permit the researchers to measure the impact of financial qualifications and of applicants' access to, and fees spent on, attorneys. In this way, the study can help determine whether comparative hearings may have perpetuated patterns of disadvantage that may have been caused by discrimination in capital markets. In addition, this study examines the extent to which licenses were allocated according to the FCC's stated rules, including the rules permitting credit for participation by minorities and women. As noted above, from the late 1970s through the end of comparative hearings in 1993, the FCC's stated policy was to award a positive credit to applicants with some ownership or management by minorities or women. The study examines the effectiveness of this policy, and whether it may have been manipulated by non-minority applicants who sought to benefit their applications without providing meaningful participation for minorities or women. This analysis will permit the FCC to evaluate whether the FCC perpetuated patterns of disadvantage by condoning such actions.

Finally, the FCC's potential passive participation in private discrimination is evaluated in the Historical Study. Through numerous interviews, this Study examines the stories behind the numbers and reviews the real life stories of real people who have sought FCC licenses from 1950 to the present. Courts have recognized that this type of evidence can be helpful in illustrating statistical findings, and that in establishing a pattern of discrimination "the combination of convincing anecdotal and statistical evidence is potent." Coral Construction Co. v. King County, 941 F.2d 910, 919 (9th Cir.1991). As the Supreme Court has noted, anecdotal evidence may "bring the cold numbers convincingly to life." International Brotherhood of Teamsters v. United States, 431 U.S. 324, 339 (1977). The Historical Study examines a variety of barriers to entry encountered by minority- and women-owned firms, such as limited access to capital and discrimination in broadcast advertising. The interviews covered a cross-section of people by year, method of license acquisition, type of license, type of FCC acquisition rules, race/ethnicity, gender, and size of business. Further, the Study asks whether the FCC has exacerbated barriers to entry for minorities and women through such means as the lifting of ownership caps and underutilization of programs designed to promote minority and female license ownership.

Key Findings

As a Staff Executive Summary, this document does not take any position on the conclusions of the studies or on whether the studies, when viewed together, show that the Commission has a compelling interest to adopt programs promoting license ownership by minorities and women. Each of the studies provides only one piece of the evidence, and each of the quantitative studies has been subject to some difficulties in data gathering. However, when they are considered along with the body of existing research and any further research that may be done in this area, the studies should enable the Commission to begin to assess the extent of market entry barriers facing applicants for FCC licenses, and to discuss what actions the Commission may take to address this issue.

Each of the five studies released today contains its own introduction or executive summary outlining its major findings. This Section lists examples of those key findings from each study.

1. Content/Ownership Study:

- Minority-owned radio stations were far more likely to choose a program format that appeals particularly to a minority audience;
- Minority-owned radio stations were more likely to provide news and public affairs programming on events or issues of particular concern to minorities;
- Minority-owned radio stations report greater racial diversity of on-air talent;
- Of radio stations that reported tailoring national news stories to the local community, minority-owned stations were far more likely to tailor the story to minority community concerns; and
- The same differences were not found in the case of television, and in most cases, including the areas noted above, there were no statistically significant differences between minority- and majority-owned television stations.

2. Broadcast Licensing Study

- During the time period in which the FCC's policy of awarding credit for minority ownership was in effect:
 - The **number of minority individuals** in an application positively influenced win rates in comparative hearings;
 - However, **minority controlling ownership share** did not increase the likelihood of an application being successful. These findings suggests that, although non-minorities included minorities in applications, such participation was non-meaningful (sham); and

- Overall, there was a lower probability for an application with any type of minority ownership winning a license than a non-minority application winning a license, when controlling for other relevant variables;
- During the time period of the FCC's policy of awarding credit for ownership by women, there was a positive and significant relationship between female ownership – both by additional numbers of women and by higher percentage of female ownership – and the probability of license award, suggesting that the FCC's policy of awarding credit for ownership by women was more effective than that for minority-ownership;
- Both applicant assets and the total number of legal motions filed were strongly correlated with the likelihood of an applicant winning a broadcast license. If there has been discrimination in capital markets, then this would suggest that minorities and women might have been disadvantaged in comparative hearings, even though no license fees were required; and
- Although a high percentage of licenses were awarded to singleton applicants without need for a comparative hearing, minorities were far less likely to be able to use this singleton process. That is, when original applications had higher proportions of minorities, they were statistically more likely to be challenged, despite the fact that such applications were entitled to credit for the minority participation in comparative hearings, and, as a result, were theoretically harder to challenge. While this phenomenon does not necessarily reflect discrimination, it does show that minorities were less able to obtain licenses without completing the lengthy and expensive comparative hearing process. This same result was not true for applications with more female participants.

3. Auction Utilization Study

- Measured across all wireless auctions through 1999, minority and women applicants were less likely to win at least one license than were non-minority applicants;
- In an auction by auction comparison, the percentage of winning minorities is sometimes larger and sometimes smaller than the corresponding percentage for non-minority applicants. Similarly, women applicants won more frequently than did men applicants in certain auctions, but less frequently than men in other auctions;
- The inclusion of installments payment in auctions increased the rate at which minority and women applicants won licenses;

- In order to bid in auctions, an applicant must qualify by submitting a completed short form application and an upfront payment. Minorities and women qualified for auctions at significantly lower rates than non-minorities. The reasons for this result are not entirely clear, suggesting this as an area for future research; and
- The differences in utilization rates between minority and women applicants and other applicants are generally less pronounced among small companies than among large companies.

4. Capital Markets and Auctions Regression Study

- Among applicants for wireless licenses, the applications for debt financing by both minorities and women were statistically less likely to be approved than the applications of non-minorities;
- Among current broadcast licensees, minorities' applications for debt financing were statistically less likely to be approved than non-minorities' applications. The applications for women were also less likely to be approved than those for men, but this result was not statistically significant;
- Minorities paid statistically higher interest rates on their loans than did other borrowers. However, there were no statistically significant differences in interest rates on the basis of gender; and
- After controlling for relevant variables, both minority- and women-owned businesses were statistically less likely to obtain wireless licenses in FCC auctions than were businesses owned by non-minorities.

5. Historical Study

- Minorities and women repeatedly report encountering discrimination in their efforts to obtain capital to finance their broadcast and wireless businesses, discrimination in securing advertising on their stations, and discrimination by members of their communities and members of the communications industry;
- Small telecommunications businesses generally, and those owned by women and minorities in particular, report that the market consolidation permitted by the relaxation of the FCC's ownership rules has created nearly insurmountable obstacles to those seeking to enter, or even survive as a small player, in the broadcast industry;

- Minority-owned firms report that the repeal of the former tax certificate program – which, from 1978 until its repeal in 1995, provided tax incentives to encourage firms to sell broadcast licenses to minority-owned firms – has had a severe negative impact on their ability to obtain new stations; and
- Interviewees believed that EEO enforcement has been uneven over the past fifty years. This reported uneven enforcement coupled with industry hiring practices has hindered the ability of minorities and women to obtain the work experience that could one day assist them to become broadcasters themselves.