

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Updating Part I Competitive Bidding Rules)	WT Docket No. 14-170
Expanding the Economic and Innovation)	GN Docket No. 12-268
Opportunities of Spectrum Through Incentive)	
Auctions)	
)	
Implementation of the Commercial Spectrum)	WT Docket No. 05-211
Enhancement Act and Modernization of the)	
Commission's Competitive Bidding Rules and)	
Procedures)	

DECLARATION OF COLEMAN BAZELON

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I. Introduction and Qualifications

I am an economist with two decades of experience in the wireless sector. I began my professional career as an Analyst at the Congressional Budget Office, focusing on FCC spectrum license auctions. I am currently a Principal at The Brattle Group, Inc. and lead its telecommunications practice. I specialize, among other things, in the value of radio spectrum licenses and the markets, both auction and secondary, in which they trade. My curricula vitae is available from the Brattle website.¹

I write this declaration in support of a Petition for Reconsideration submitted to the Federal Communications Commission (“FCC” or “Commission”) by the Multicultural Media, Telecom and Internet Council (“MMTC”). On February 25, 2014, MMTC published a White Paper entitled “Digital Déjà Vu: A Road Map for Promoting Minority Ownership in the Wireless Industry,” that outlined barriers to entry in minority ownership of commercial wireless spectrum.² The MMTC White Paper was influential in the opening of an FCC proceeding that reviewed, and ultimately updated, the competitive bidding rules for the congressionally mandated Designated Entity (DE) program that facilitates market entry by small businesses, rural telephone companies, and minority- and women-owned businesses (MWBES).³ In previous Comments, MMTC also detailed a series of four proposals to enhance the participation of MWBES through secondary market transactions where operators gain access to spectrum through private commercial transactions.⁴ I have been asked to review and comment upon the economic incentives created by these proposals.

¹ For a full biography, please visit: <http://www.brattle.com/experts/coleman-d-bazelon> (last visited October 19, 2015).

² See S. Jenell Trigg and Jeneba Jalloh Ghatt, *Digital Déjà Vu: A Road Map for Promoting Minority Ownership in the Wireless Industry* (Feb. 25, 2014) (“White Paper”), available at http://mmtconline.org/wp-content/uploads/2014/02/Web-Unembargo-MMTC-WHITEPAPER_WIRELESS-OWNERSHIP_2.24.14_FINAL-2.pdf (last visited October 19, 2015).

³ See Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions, Report and Order, 29 FCC Rcd 6567 (2014) (Incentive Auction R&O).

⁴ See Response to the FCC’s Request for Further Notice of the Multicultural Media, Telecom and Internet Council (May 15, 2015), available at <http://apps.fcc.gov/ecfs/comment/view?id=60001031849> (last visited October 19, 2015).

II. What is a Secondary Market Transaction?

Spectrum is a scarce and valuable economic resource that will remain in high demand for years to come.⁵ As a consequence, licensed spectrum prices have experienced a significant upward trend over the past decade.⁶ As spectrum is a necessary input into any wireless or spectrum-based services, increasing costs of this asset create a growing barrier to entry for minority entrepreneurs and businesses who endeavor to provide such services.

To address this impediment and correct for past market failures, the FCC instituted a program of bidding credits in spectrum license auctions.⁷ But auctions are not the only way that firms gain access to licensed spectrum.⁸ As auctions become less of an opportunity for new entrants, secondary market transactions provide carriers—and potential carriers—the access to spectrum needed to facilitate entry into the wireless sector.

As stated in the MMT White Paper, the FCC broadened opportunities for secondary market transactions by permitting licensees to lease their licensed spectrum to third parties dating back to 2003. In its 2003 Section 257 Triennial Report to Congress, the Commission lauded its secondary markets initiatives as a major accomplishment stating that the changes helped “further the ability of licensees and entities that seek to gain access to spectrum, including entrepreneurs and small businesses, to enter into arrangements best suited [to] the parties’ respective needs and business models.”⁹ Further, spectrum leasing arrangements have been vital to the business models utilized by

⁵ Coleman Bazelon and Giulia McHenry, “Substantial Licensed Spectrum Deficit (2015 – 2019): Updating the FCC’s Mobile Data Demand Projections,” CTIA (June 23, 2015), available at http://www.ctia.org/docs/default-source/default-document-library/bazelon_mchenry_spectrum-deficit_2015-06-23.pdf (last visited October 19, 2015); See also Coleman Bazelon and Giulia McHenry, “Mobile Broadband Spectrum: A Vital Resource for the U.S. Economy,” CTIA (May 11, 2015), available at http://www.ctia.org/docs/default-source/default-document-library/brattle_spectrum_051115.pdf (last visited October 19, 2015).

⁶ For example, the AWS-1 auction in 2006 saw average prices of \$0.50/MHz-pop, whereas the 2014/2015 AWS-3 auction for qualitatively the same frequencies realized an average price of \$2.71/MHz-pop for paired spectrum.

⁷ See Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, §6002 (codified at 47 U.S.C. §309(j)). (“In 1993, Congress amended the Communications Act to grant the FCC authority to conduct competitive bidding (auctions) as a more efficient and expedient means to allocate new licenses.”)

⁸ See White Paper at 29.

⁹ Section 257 Proceeding to Identify and Eliminate Market Entry Barriers for Small Business, Report, 19 FCC Rcd 3034, 3081-82 ¶156 (2003) (emphasis added).

MWBEs. These types of arrangements provide increased access to capital, which in turn helps firms become facilities-based competitors – a goal also shared by the FCC.¹⁰

The secondary markets policy also helps the FCC meet its obligation to promote efficient spectrum use of a scarce commodity among a wide range of competitors, including MWBEs.¹¹ Further, the FCC can facilitate these transactions attendant to mergers or acquisitions.¹² As activity peaks in the wireless industry, especially around mergers and acquisitions, I agree with the findings of MMTTC’s White Paper that the FCC should put its best effort forward to ensure that diversity and inclusion are more compelling factors in their determination of whether any transaction meets the public interest standard. Such action can further MWBE ownership of commercial wireless spectrum.

III. State of the Marketplace

To date, the market for trading spectrum is robust. Table 1, below, reports the amount of spectrum that has traded hands in secondary market transactions over the five primary wireless broadband bands. As indicated in Table 1, for three of the five wireless bands analyzed, the quantity of spectrum traded on secondary markets *exceeds* the size of the bands. Across all five bands, the average quantum of spectrum has traded hands one-and-a-quarter times.

¹⁰ *Secondary Markets Report & Order* at 20607 ¶2 (“Facilitating the development of these secondary markets enhances and complements several of the Commission’s major policy initiatives and public interest objectives, including our efforts to encourage the development of broadband services for all Americans, promote increased facilities-based competition amongst service providers, enhance economic opportunities and access for the provision of communications services by designated entities, and enable development of additional and innovative services in rural areas.”)

¹¹ *See supra* note 9.

¹² There have been and continue to be a large number of mergers and acquisitions in the telecommunications industry.

Table 1: Spectrum Traded on Secondary Market (billions of MHz-pops)

	AWS-1	Broadband Radio Service	Cellular	PCS Broadband	700 MHz	Total
	[1]	[2]	[3]	[4]	[5]	[6]
Total Traded MHz-Pops	36	2	26	95	1	159
Total in Band	28	23	16	38	22	126

Sources & Notes:

Reflects spectrum traded in voluntary, non-pro forma assignments or transfers of full market-based licenses by radio service code category. Applications and Transfers and Licenses pulled from ULS databases: <http://wireless.fcc.gov/uls/index.htm?job=transaction&page=weekly>. License databases downloaded include BRS & EBS, Cellular, and Market Based Services. Tables used include AD, TA, and CF from Applications and Transfer, and HD, MF, MK, and MP from Licenses data. Based on the methodology laid out in Mayo and Wallsten, "Enabling Efficient Wireless Communications: The Role of Secondary Spectrum Markets," Information Economics and Policy 22 (2010): 61–72.

[1]: Years 2006 through 2015.

[2]: Years 2005 through 2013.

[3]: Years 1998 through 2015.

[4]: Years 1997 through 2015.

[5]: Years 2003 through 2015.

[6]: Sum of [1] - [5].

Of course, spectrum is traded in discrete licenses. By that measure, the market for spectrum is also robust (See Table 2). Hundreds of wireless broadband licenses trade hands each year, providing a rich environment to influence policy. Unsurprisingly, the more established bands are more sought after and traded more frequently.

Table 2: Spectrum Traded on Secondary Market (Number of License Transfers)

Year	Broadband			PCS		Total
	AWS-1	Radio Service	Cellular	Broadband	700 MHz	
1997	-	-	-	3	-	3
1998	-	-	201	42	-	243
1999	-	-	409	121	-	530
2000	-	-	557	279	-	836
2001	-	-	41	257	-	298
2002	-	-	53	161	-	214
2003	-	-	53	225	2	280
2004	-	-	196	449	1	646
2005	-	5	187	264	6	462
2006	1	-	40	156	6	203
2007	6	59	537	485	5	1,092
2008	36	60	404	300	1	801
2009	10	1	69	169	6	255
2010	16	1	97	143	13	270
2011	78	1	8	61	13	161
2012	148	7	23	192	10	380
2013	91	2	43	270	22	428
2014	99	-	9	175	10	293
2015	3	-	4	8	3	18
Total # Traded	488	136	2,931	3,760	98	7,413

Sources & Notes:

Reflects spectrum traded in voluntary, non-pro forma assignments or transfers of full market-based licenses by radio service code category. Applications and Transfers and Licenses pulled from ULS databases: <http://wireless.fcc.gov/uls/index.htm?job=transaction&page=weekly>. License databases downloaded include BRS & EBS, Cellular, and Market Based Services. Tables used include AD, TA, and CF from Applications and Transfer, and HD, MF, MK, and MP from Licenses data. Based on the methodology laid out in Mayo and Wallsten, "Enabling Efficient Wireless Communications: The Role of Secondary Spectrum Markets," Information Economics and Policy 22 (2010): 61–72.

Several conclusions can be drawn from the marketplace data on secondary market transactions. *First*, a significant amount of spectrum changes ownership over time. Consequently, given the size of secondary market transactions, an important window exists to enhance minority participation in the wireless sector. *Second*, the FCC data is unclear on the extent to which MBEs benefitted from secondary market transactions. *Third*, even if increases in minority participation in secondary market transactions only occur for a small share of transactions, the absolute level of those transactions will be significant. For example, had policies been in place that impacted only one percent of the

transactions analyzed, that would represent 74 transactions or 1.6 billion MHz-pops—enough spectrum to cover 160 million people if the transactions averaged 10 MHz of spectrum.

IV. Framework for Analysis

Historically, minorities have not fully participated in the wireless sector.¹³ According to MMTC’s White Paper, media ownership within the burgeoning sectors of the media and telecommunications industries—radio, broadcast, cable and satellite—is still a pressing policy concern.¹⁴ In the FCC’s first decade of its auction authority, it implemented three congressionally-approved tools and regulatory initiatives to promote participation by designated entities such as minority- and women-owned businesses: bidding credits, installment payment plans, and special closed auctions for DEs only. Over a ten-year span, more than 1,400 small businesses, including MWBEs, won spectrum licenses as a result of the competitive bidding process.¹⁵ Yet in more recent times and over the course of fifty-six wireless auctions during the past twenty years, the majority of designated entities that currently hold wireless licenses are incumbent rural telephone companies, very few of which are new entrants, and even fewer are MWBEs.¹⁶

More broadly, past discriminatory policies have impeded wealth accumulation in minority communities.¹⁷ This historic lack of access to capital and its legacy today creates a market failure—minority investors are at a disadvantage when making capital intensive investments, such as required for wireless broadband networks.

To remedy this market failure, the FCC instituted programs that provide economic advantage to minorities, or small businesses, and those who do business with them. One such program was the Tax Certificate Policy (1998-2005) which allowed firms that sold broadcast stations and cable

¹³ See, e.g., David Honig and Moushumi Khan, *Section 257- Eliminating Market Entry Barriers: The Best New Hope for Diversity and Inclusion*, in *The Success and Failure of the 1996 Telecommunications Act* 153, 156-57 (Civil Rights Forum on Communications Policy, ed., 2002).

¹⁴ See *supra* note 9. (“In his tenure as a Senator, President Barack Obama was very supportive of bold FCC action to further diversity in the broadcasting industry, having declared at that time that: [i]t is time to put together an independent panel . . . to issue a specific proposal for furthering the goal of diversity in media ownership. I object to the agency moving forward to allow greater consolidation in the media market without first fully understanding how that would limit opportunities for minority, small business, and women owned firms.”)

¹⁵ See *id.* at 36.

¹⁶ See *id.*

¹⁷ See, for example, Thomas Shapiro, Tatjana Meschede and Sam Osoro, “The Roots of the Widening Racial Wealth Gap: Explaining the Black-White Economic Divide” (February 2013), available at: <http://iasp.brandeis.edu/pdfs/Author/shapiro-thomas-m/racialwealthgapbrief.pdf>.

systems to minorities to defer capital gains tax payments. Another program to remedy market failures has been bidding credits in spectrum license auctions; and some of these updates have been adopted under the FCC's current *Report and Order*. These are discussed in more detail below.

As further discussed in more detail in the following section, I believe that there are additional tools the FCC could deploy in the wireless sector to correct the market failure of minority access to capital—all of which are addressed in MMTC's White Paper. Generally, each proposal below creates direct or indirect economic incentives for industry players to partner or transact with minority businesses. Such economic incentives are important to level the playing field and promote minority involvement in the wireless sector.

V. Discussion of MMTC's Four Proposals

A. CONSIDERATION OF SECONDARY MARKET TRANSACTIONS IN THE M&A WAIVER CONTEXT

Merger activity in the telecommunications industry, including the wireless sector, remains strong. As the industry consolidates, increasing scrutiny is placed on each subsequent proposed merger or acquisition. Consequently, anything that weighs in favor a particular deal will become increasingly valuable. Here, consideration of secondary market transactions that involve minorities by the parties under review can create an independent incentive to engage in such transactions with minorities.

When deciding whether or not a license transfer is in the public interest, the FCC considers many different factors.¹⁸ Much attention is focused on the competitive effects of a merger, but other elements can enter the decision process. In broadcast regulation, there is a strong line of precedent

¹⁸ See Applications of AT&T Inc. and DIRECTV For Consent to Assign or Transfer Control of Licenses and Authorizations, MB Docket No. 14-90, Memorandum Opinion and Order, FCC 15-94 (rel. July 28, 2015), available at <https://www.fcc.gov/document/fcc-releases-order-approving-att-directv-transaction-at-9-10>. (“Pursuant to Section 310(d) of the Act, we must determine whether the Applicants have demonstrated that the proposed transfer of control of licenses and authorizations will serve the public interest, convenience, and necessity. In making this determination, we assess whether the proposed transaction complies with the specific provisions of the Act, other applicable statutes, and the Commission’s rules. If the transaction does not violate a statute or rule, we consider whether the transaction could result in public interest harms by substantially frustrating or impairing the objectives or implementation of the Act or related statutes. We then employ a balancing test weighing any potential public interest harms of the proposed transaction against any potential public interest benefits. The Applicants bear the burden of proving, by a preponderance of the evidence, that the proposed transaction, on balance, serves the public interest. If we are unable to find that the proposed transaction serves the public interest for any reason, or if the record presents a substantial and material question of fact, we must designate the Application for hearing.”)

for this type of consideration to create incentives to promote the interests of minorities.¹⁹ Adding consideration of secondary market transactions with minorities would create similar incentives in the wireless sector.

Merger applicants should be encouraged to describe, in the Public Interest Statements accompanying their merger applications, how the parties' secondary market transactions have promoted minority entrepreneurship. Clearly, spectrum license transactions that involve minorities, especially ones where minorities are the assignees of a license transfer, would be foremost in any recitation of merging party activities in this area.

B. CONSIDERATION OF SECONDARY MARKET TRANSACTIONS IN THE MOBILE WIRELESS COMPETITION REPORTS

Shining a light on voluntary secondary market transactions reinforces their importance to the Commission. The mandated Mobile Wireless Competition Reports (formerly, Annual CMRS Competition Reports) serve as the FCC's evaluation of wireless industry competition.²⁰ The reports are widely read and regularly cited as authority on the wireless industry. What the FCC includes in the reports speaks to what it considers important in the industry. Consequently, adding information about secondary market transactions involving minorities would signal the importance the FCC places on this issue. Furthermore, greater involvement in the wireless sector by minority businesses would certainly add support to any future finding by the FCC of a competitive wireless industry.

To include this information, the FCC would need to include questions about minority participation in secondary market transactions in its Public Notice that solicits information for its Annual CMRS Competition Report. The Commission has precedent with this type of proceeding through its Video Competition Report.

¹⁹ See, e.g., *Stockholders of Infinity Broadcasting Corporation*, 12 FCC Rcd 5012, 5036 ¶47 (1996) (weighing favorably, as part of CBS' showing in support of a one-to-a-market rule waiver in connection with the CBS/Infinity merger, the fact that Infinity "has already filed an application to assign one of the stations it will divest to a minority-controlled entity"); *Viacom, Inc.*, 9 FCC Rcd 1577, 1579 ¶9 (1994) (holding that Viacom's proposal to seek out minority buyers for two radio stations to be spun off from its merger with Paramount "would be impossible for it to administer were we to require an immediate divestiture and we find that an 18-month period will spawn public benefits warranting grant of a temporary waiver"); *Combined Communications Corp.*, 72 FCC2d 637, 656 ¶45 (1979) (declaring that the opportunity to approve the spinoff from the Gannett/Combined Communications Corp. merger of WHEC-TV, Rochester, New York to a minority owned company "represents a most significant step in the implementation of our continuing effort to encourage minority ownership of broadcast properties"); cf. *Midwest Communications, Inc.*, 7 FCC Rcd 159, 160 (1991) (holding that a "forced" sale could unnecessarily restrict the value of the station and artificially limit the range of potential buyers, to the exclusion of minorities).

²⁰ See Federal Communications Commission, Mobile Wireless Competition Reports, available at <https://www.fcc.gov/encyclopedia/mobile-wireless-competition-reports> (last visited October 19, 2015.)

The FCC shining a light on secondary market transactions involving minorities, and publicizing companies involved in such transactions, would create a new positive externality associated with those transactions, while surfacing the market entry barriers experienced by MWBEs. The positive publicity from the FCC is valuable to any firm. The statements from the Mobile Wireless Competition Reports can then be used in all Public Interest statements, whether for M&A or other purposes, as well as more general corporate image promotion.

C. RECOMMENDATION TO CONGRESS FOR A REVISED TAX CERTIFICATE POLICY THAT ENCOMPASSES SECONDARY MARKET TRANSACTIONS

Tax certificates, where as a result of being involved in a favored transaction a party can defer capital gains tax obligations, are a powerful policy tool. They confer real financial value to firms and therefore create significant incentives. The FCC's minority tax certificate program provided such incentives to effectively promote minorities in broadcasting and cable;²¹ such tax certificates applied to wireless secondary market transactions would be expected to be similarly effective.

D. BIDDING CREDITS AND INSTALLMENT PAYMENT OPTIONS FOR COMPANIES THAT PERFORM SECONDARY MARKET TRANSACTIONS WITH DES

Bidding credits in FCC auctions are understood to be an effective method to compensate for historical discrimination and to promote competitive new entry. Bidding credits and installment payments usable in forthcoming FCC auctions are a direct financial benefit to bidders. A bidding credit of five percent would provide a carrier doing secondary market transactions a modest but significant advantage over otherwise similarly situated carriers without significantly diluting the advantage conferred on designated entities on account of the historic disadvantages they have faced in securing access to spectrum.

E. CONCLUSION

The four proposals discussed above provide potent tools for the FCC to encourage and incentivize minority participation in wireless transactions.

²¹ See Erwin Krasnow and Lisa Fowlkes, "The FCC's Minority Tax Certificate Program: A Proposal for Life After Death," *Federal Communications Law Journal*, Volume 51, Issue 3, pp. 665 – 679.

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