ASSIGNING PROPERTY RIGHTS TO RADIO SPECTRUM USERS: WHY DID FCC LICENSE AUCTIONS TAKE 67 YEARS?*

THOMAS W. HAZLETT
University of California, Davis

Abstract

While Leo Herzel (1951) and Ronald Coase (1959) persuasively argued for auctioning licenses issued by the Federal Communications Commission (FCC), not until 1993 did the U.S. Congress grant the FCC authority to assign wireless operating permits via competitive bidding. Why were auctions, with obvious efficiency and equity advantages, so long in coming? Why were comparative hearings in the ''public interest'' first abandoned as assignment tools in 1981 not for auctions, but for lotteries? And why were radio and TV licenses pointedly excluded from auctions? Four factors—the special interest of regulators in influencing broadcasting content, the limits placed on explicit program regulation by the U.S. Constitution, the recent increase in the relative economic importance of nonbroadcast wireless services, and the agency problem embedded in central planning—are used to explain both the political stability of economically inefficient licensing methods and recent reforms.

> The idea of auctioning airwaves to the highest bidder was first proposed in the late 1950's by Ronald Coase, the economist and Nobel laureate. The Reagan Administration pushed the idea during the 1980's, but Democrats in Congress resisted. After the Clinton Administration embraced auctions as a way to fatten federal coffers, Congress converted, voting last year to require auctions for most nonbroadcast licenses. [*New York Times,* 1994][1]

* The author wishes to thank Peter Cramton, Harold Farrow, Evan Kwerel, Jonathan Levy, Marius Schwartz, Howard Shelanski, Greg Sidak, Jonathan Skinner, Matt Spitzer, Colleen Walton, and John Williams as well as seminar participants at the Federal Trade Commission, the Telecommunications Policy Research Conference, Clemson University, Dartmouth College, the University of Southern California, and the Conference on the Law and Economics of Property Rights to Radio Spectrum for their helpful input into this article. Ronald Coase and Stephen Williams, who discussed this paper at the 1996 Marconi Center Conference on the Law and Economics of Property Rights to Radio Spectrum, were particularly generous with their insights. The standard disclaimer applies.

[1] Teresa Riordan, Bids Soar at Auction by F.C.C., N.Y. Times, July 27, 1994, at D1.

[*Journal of Law and Economics,* vol. XLI (October 1998)]
© 1998 by The University of Chicago. All rights reserved. 0022-2186/98/4102-0011$01.50

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

> It is sometimes said that I introduced the idea of using prices to allocate the spectrum. But this is untrue. The first time this was proposed, at any rate in print, was by a student author, Leo Herzel, in an article in the *University of Chicago Law Review* in 1951. When I first read this article I thought, and it was quite natural to think this, that Leo Herzel had been influenced by Aaron Director and Milton Friedman. But this is also untrue. While he was an undergraduate, Herzel had become very interested in the debate over whether a rational, efficient system for allocating resources would be possible under socialism. As a result, he read Abba Lerner's *The Economics of Control* soon after it was published in 1944. This debate, particularly Lerner's detailed proposal for market socialism in *The Economics of Control,* was the inspiration behind his views. [RONALD COASE, 1993][2]

I. INTRODUCTION

ISSUING spectrum access rights by means other than auctions has been a curious policy to economists. Since Coase's influential analysis of property rights to radio spectrum (1959), it has been well known that licenses were distributed in an inefficient manner. While recent research (by Hazlett in 1990 and by Lueck in 1995) suggests that the initial assignment rule used in the 1920s radio broadcast market—priority-in-use rights established on a "first come, first served" basis—was optimal for determining effective property rights prior to the enactment of legislation, this fails to explain the use of comparative hearings to award rights after the Radio Act of 1927.

From 1927 to 1981, these administrative proceedings (wherein competing applicants were ranked by a "public interest" standard) assigned operating licenses for wireless communications in a socially wasteful and politically charged manner. In 1981, the U.S. Congress adopted legislation permitting the FCC to issue nonbroadcast licenses by lottery, depoliticizing assignments but leaving much rent-seeking waste. Only in 1993 did the Congress permit auctions to be held for nonbroadcast FCC licenses. These auctions began July 25, 1994, and quickly registered over $20 billion in receivables for the U.S. Treasury.[3]

The long policy march to FCC license auctions was painfully slow, despite the fact that Congress was frequently petitioned to institute license fees or auctions, almost from the very inception of regulation itself. Re-

[2] R. H. Coase, Law and Economics at Chicago, 36 J. Law & Econ. 239, 248–49 (1993).

[3] FCC press release, "FCC Hits $20 Billion Mark in Total Auction Revenues," at www.fcc.gov/Bureaus/Wireless/News_Releases/nrwl6015.txt (April 5, 1996).

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

peated calls to end zero-priced license ''giveaways'' came from academics, the popular press, individual members of Congress, budget committees in Congress, the White House, Office of Management and Budget, the Commerce Department, the Federal Radio Commission, and the FCC. Indeed, the FCC unilaterally imposed fees on licensees in the early 1970s, was rebuffed by the courts as having exceeded its statutory authority, and was forced to refund monies collected.[4]

The use of zero-priced awards not only sacrificed billions of dollars that could have been made available for federal spending, deficit reduction, and/or tax relief, it incurred large rent-seeking expense in the initial license distribution phase.[5] This social cost has been depicted as unambiguously wasteful because licenses have been reassigned in active secondary markets after government issuance. In addition, comparative hearings proved to be highly politicized, a seemingly dangerous condition given the importance of broadcasters' independence under the First Amendment's ''freedom of the press'' clause. Objectifying assignments via competitive bidding, which in any event took place once licenses were assigned, would improve social efficiency and eliminate a serious First Amendment problem.[6] Given Becker's demonstration that efficient solutions tend to dominate over time,[7] how could nonauction methods prove so stable a solution to the license assignment problem when the social costs were so high and the arguments for reform so overwhelming?

Competing hypotheses have emerged to explain the reluctance of policy makers to employ auctions. An alternative theory is developed in this article, which draws on three distinct elements of the economics literature: Posnerian ''taxation by regulation,'' the strategic use of franchise rents to monitor and discipline agent performance, and the classic agency problem existing between taxpayers and managers of state-owned enterprises. These general models of economic behavior from public choice and industrial organization theory help explain the policy used to assign FCC licenses when combined with the special incentives and institutional constraints surrounding radio and television broadcasting rights.

[4] William Ray, FCC: The Ups and Downs of Radio-TV Regulation (1990).

[5] Evan R. Kwerel & Alex D. Felker, Using Auctions to Select FCC Licensees (Office of Plans and Policy (OPP) Working Paper No. 16, Federal Communications Commission, 1985); Congressional Budget Office, Auctioning Radio Spectrum Licenses (March 1992); Thomas W. Hazlett & Robert J. Michaels, The Cost of Rent-Seeking: Evidence from Cellular Telephone License Lotteries, 59 S. Econ. J. 425 (January 1993).

[6] Harry Kalven, Jr., Broadcasting, Public Policy, and the First Amendment, 10 J. Law & Econ. 15 (1967); Ithiel de Sola Pool, Technologies of Freedom (1983).

[7] Gary Becker, A Theory of Competition among Pressure Groups for Political Influence, 98 Q. J. Econ. 357 (May 1983).

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

II. Four Ways to Assign Property Rights to Use Radio Spectrum[8]

Since 1912, the United States has employed four distinct methods to assign property rights to private users. The first method was called ''right of user'' or ''priority-in-use'' and was the system that prevailed when radio wave access became an economic good in the early 1920s.[9] The Department of Commerce enforced such rights under the Radio Act of 1912, which authorized that licenses be granted so as to ''minimize interference.'' Then, with the creation of the Federal Radio Commission in the Radio Act of 1927, a regime commenced in which users of spectrum were awarded operating permits via comparative hearings, the ranking criterion being ''public interest.'' The regulatory structure was based on a ''social compact'' between the government and the licensees: free licenses were traded for public interest commitments on the part of the licensee. This regime is routinely referred to as ''public trusteeship.'' Until 1981, this was the only assignment tool used (see Table 1).

Then, faced with the daunting administrative task of awarding over 1,400 licenses for cellular telephony (two in each of 734 local markets), the commission prevailed upon Congress to allow lotteries to be used in place of comparative hearings.[10] While the FCC (as well as the White House and Commerce Department) had asked for auction authority as well, the Congress rejected this request. The lotteries, limited to one entry per market per U.S. citizen, were used to assign cellular licenses between 1984 and 1989.[11] The FCC required all lottery applicants to be qualified telephone compa-

[8] The Federal Communications Commission assigns license rights that are, technically, ''radio station authorizations.'' They allow the licensee to access certain frequencies using certain types of equipment to provide certain types of service—as regulated by the commission. Hence, the licenses are not ''spectrum rights'' but ''use permits.'' A UHF-TV licensee cannot go dark and use the same spectrum space to deliver mobile telephone service, for instance. A de facto property right, however, is conveyed within the FCC license, namely, the right to access a certain frequency space within the operating parameters specified by the ''radio station authorization'' at a price of zero. See John O. Robinson, Spectrum Management Policy in the United States: An Historical Account (Office of Plans and Policy (OPP) Working Paper No. 15, Federal Communications Commission, April 1985); Evan R. Kwerel & John R. Williams, Changing Channels: Voluntary Reallocation of UHF-TV Spectrum (Office of Plans and Policy Working Paper No. 27, Federal Communications Commission, November 1992).

[9] Clarence C. Dill, Radio Law (1938); Thomas W. Hazlett, The Rationality of U.S. Regulation of the Broadcast Spectrum, 33 J. Law & Econ. 133 (April 1990).

[10] While authorized by Congress in 1981, the FCC did not begin to employ lotteries until 1984. The enabling legislation appears in the Omnibus Budget Reconciliation Act of 1981, Pub. L. No. 97-35, 95 Stat. 736–37, amended, Communications Amendment Act of 1982, Pub. L. No. 97-259, § 115, 96 Stat. 1087.

[11] A small number of cellular permits—those in the first 30 markets licensed—were issued via comparative hearings in 1982–84. Lotteries were then adopted and used to assign the remaining 1,408 licenses.

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

TABLE 1

WIRELESS LICENSE ASSIGNMENT METHODS USED IN THE UNITED STATES

Period	Rights Assignment Method	Enforcement Body	Legislation
1912–27	Priority-in-use	Department of Commerce; common law	Radio Act of 1912
1927–84	Comparative hearings	FRC (1927–34); FCC (1934–84)	Radio Act of 1927; Communications Act of 1934
1984–94	Comparative hearings (broadcasting licenses); lotteries (most others)	FCC	Communications Act of 1934; 1981 budget
1994–present	Comparative hearings (broadcasting licenses); auctions (most others)	FCC	Communications Act of 1934; 1981 budget; 1993 budget

nies; entrants had the burden of showing that they possessed the financial and technical ability to construct and operate a wireless telephone system according to FCC specifications. Thousands of such ''companies'' materialized, helped by so-called application mills that prepared extensive engineering materials and financial documentation making just such a showing. Nearly 400,000 applications were received for the available licenses. Between $500 million and $1 billion in wasteful rent-seeking was likely expended on the cellular lotteries, while several times this sum was lost for the U.S. Treasury.[12]

Throughout virtually the entire period in which zero-priced licenses were assigned by the FCC, economists and government agencies have called for spectrum fees and/or competitive bidding (see Table 2). These calls became pitched and constant by the 1970s, with the administration (Democratic or Republican) regularly requesting authority to charge for licenses, only to be denied by Congress. Finally, in the Omnibus Budget Reconciliation Act of 1993 (OBRA), auction authority was granted to the Federal Communications Commission.[13] And it was a relatively liberal grant: ''[W]hat started [under the Bush administration] as a limited auction experiment grew to mandatory auctions for a wide array of spectrum licenses.''[14]

[12] Hazlett & Michaels, *supra* note 5.

[13] Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, § 6002, 107 Stat. 312, 387–92.

[14] Nicholas W. Allard, The New Spectrum Auction Law, 18 Seton Hall Legis. J. 101, 124 (1994).

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

TABLE 2

UNSUCCESSFUL PROPOSALS TO PRICE SPECTRUM ACCESS > 0

Year	Proposal and Forum
1927	American Bar Association, Committee on Air Law: license fee proposal (13 Va. L. Rev. 611 (1927))
1928	Trade journal editorial advocates a license fee on radio broadcasters with proceeds used to compensate stations denied future licenses by Federal Radio Commission
1929	U.S. Senate (Resolution No. 351) asks Federal Radio Commission to formulate a schedule of license fees for Congress to consider
1929	Federal Radio Commission proposes an extensive fee schedule for licensees based on power (wattage) and hours of operation
1931	Two of five Federal Radio Commission members support license fee proposal
1932	License fee legislation passes House of Representatives, introduced into Senate
1945–52	Several congressional proposals for license fees from those in Congress concerned with budget policy
1951	Leo Herzel (lawyer): license auctions (18 U. Chi. L. Rev. 802 (1951))
1958	Congressman Henry Reuss (D-Wis.): legislation to auction TV licenses (introduced in U.S. House of Representatives)
1959	Ronald Coase: license auctions (2 J. Law & Econ. 1 (1959))
1961–62	Harvey Levin: license auctions (50 Georgetown L. J. 1 (1961), 5 J. Law & Econ. 49 (1962))
1967	Harvey Levin: license auctions (53 Iowa L. Rev. 437 (1967))
1969	21 Stan. L. Rev. 1494 (1969): scheme for selling private spectrum rights
1972	U.S. Department of Commerce study: auction spectrum rights
1973	Office of Telecommunications Policy (White House): experiment with spectrum auction in public sector
1970–76	FCC imposes fees on broadcast and nonbroadcast licenses; forced by courts to cease policy and refund monies on grounds of insufficient statutory authority; Congress refuses to grant authority
1977	''Options Papers'' produced by U.S. House Subcommittee on Telecommunications staff review ''mechanisms for extracting the value of the spectrum being used and translating that value into benefits to the public''
1978–80	Congressman Lionel Van Deerlin (D-Calif.), House Telecommunications Subcommittee chair: spectrum fees targeted to support public broadcasting
1979	President Jimmy Carter advocates license auctions in State of the Union Address
1979	FCC Commissioner James Quello proposes that ''broadcasters should be assessed an appropriate annual spectrum fee and then assigned licenses without expiration dates'' in an official Commission proceeding
1980	U.S. Department of Commerce (executive branch policy position): license auctions
1981–93	FCC and Office of Management and Budget: virtually annual proposals for license auctions
1982	FCC Chairman Fowler's article (60 Tex. L. Rev. 207 (1982)): license auctions

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

TABLE 2 (*Continued*)

Year	Proposal and Forum
1983	MIT political scientist Ithiel de Sola Pool: market allocation of spectrum advocated in *Technologies of Freedom*
1987–89	Reagan Administration budget proposals (FY88–90) contain auction revenues from sale of nonbroadcast FCC licenses
February 1991	U.S. Department of Commerce (major spectrum policy report): license auctions
March 1992	Congressional Budget Office (report to Congress): license auctions

There were, however, two important limitations placed on the FCC's authority by Congress. First, only subscription-based service licenses were to be auctioned; this took over-the-air television and radio off the table (as opposed to land mobile telephone service, private radio, microwave, wireless data transfer, direct broadcast satellite, or satellite telephone, for example). The second major restriction on auctions was that they were not to be used for renewals of existing licenses but only for new assignments. This exemption extended to lottery applicants who were waiting for drawings to be held, as happened with pending ''wireless cable'' licenses.[15]

Auctions for 10 nationwide narrowband personal communications service (PCS) licenses commenced on July 25, 1994. After 47 sequential rounds of bidding, the auctions concluded on July 29, netting $617 million. Other auctions have been held for licenses to provide interactive video data services (IVDS), regional narrowband PCS, regional broadband PCS, local broadband PCS, direct broadcast satellite (DBS), specialized mobile radio (SMR), and multipoint distribution service (MDS). Total sales surpassed $20 billion as of April 5, 1996.[16] Table 3 summarizes the license auctions held to date.

[15] *Id.*

[16] Bad-debt expense, however, will be likely to limit collections substantially. In some auctions, including those for C-block PCS licenses (concluding May 6, 1996), firms that the FCC qualified as ''small businesses'' were granted favorable credit terms. Some PCS-C winners declared bankruptcy to shield themselves from financial obligation; the commission preemptively relaxed payment schedules to avert widespread defaults. See Federal Communications Commission, Second Report and Order and Further Notice of Proposed Rule Making: In the Matter of the Commission's Rules Regarding Installment Payment Financing for Personal Communications Services (PCS) Licensees, FCC 97-342, WT Docket No. 97-82 (October 16, 1997).

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

TABLE 3

FCC License Auctions, 1994–98

License Type	Date Began–Ended	Licenses per Market	Total Number of Licenses	Total Bandwidth Allocated	Number of Bidding Rounds	Sum of Net Winning Bids
Narrowband national PCS	7/25/94–7/29/94	10	10	787.5 kHz	47	$617 million
IVDS	7/28/94–7/29/94	2	594 (in 297 of 306 MSAs)	1 MHz	1 (open outcry)	$214 million
Regional narrowband PCS	10/26/94–11/8/94	6	30 (five regions)	450 kHz	105	$395 million
Regional broadband PCS (A and B blocks)	12/5/94–3/13/95	2	99 (51 MTAs − 3 pp's)	60 MHz	112	$7.02 billion
Direct broadcast satellite	1/24/96–1/26/96	2	2 (110°, 148°)	500 MHz	19	$734 million
SMR	12/5/95–4/15/96	20	1,020 (51 MTAs)	5 MHz	168	$204 million
MDS	11/13/95–3/28/96	1	493 (493 (BTAs)	76–78 MHz	181	$216 million
Local broadband PCS (C block)	12/18/95–5/6/96	1	493 (493 BTAs)	30 MHz	184	$9.270 billion (net of $874 million in defaults)
Local broadband PCS (C block) reauction	7/3/96–7/16/96	1	18 (18 BTA license defaults)	30 MHz	25	$697 million (net of $214 million in defaults)

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

Local broadband PCS (D, E, and F blocks)	8/26/96–1/14/97	3	1479 (493 BTAs)	30 MHz	276	$2.517 billion
Cellular unserved	1/13/97–1/21/97	2 cellular licenses	14 (13 MSAs, one RSA)	50 MHz	36	$1.84 million
WCS	4/15/97–4/25/97	4	128 (two per 52 MEAs; two per 12 REAGs)	30 MHz	29	$13.6 million
DARS	4/1/97–4/2/97	2	2 (nationwide)	25 MHz	25	$173 million
SMR (upper 200)	10/28/97–12/8/97	3	525 (175 EAs)	10 MHz	235	$96 million
LMDs	2/18/98–3/25/98	2	986 (493 BTAs)	1.3 GHz	128	$597 million

SOURCE.—FCC, Congressional Budget Office.

NOTE.—PCS personal communications services; IVDS = interactive video data services; SMR = specialized mobile radio; MDS = multipoint distribution service; WCS = wireless communications services; DARS = digital audio radio service; LMDS = local multipoint distribution system; MSA = metropolitan service area (as opposed to rural service area); pp = pioneer's preference; MTA = major trading area; BTA = basic trading areas; MEA = major economic area; REAG = regional economic area grouping; EA = economic area.

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

III. Three Hypotheses about Why Auctions Were (Are) Not Employed[17]

A. *The Error Theory (Hypothesis 1)*

In his classic 1959 article on broadcast regulation and property rights,[18] Ronald Coase postulated that public interest licensing was instituted owing to an analytical oversight: ''It is difficult to avoid the conclusion that the widespread opposition to the use of the pricing system for the allocation of frequencies can be explained only by the fact that the possibility of using it has never been seriously faced.''[19]

This initial mistake was, moreover, quickly compounded by the issuance of far too few licenses. The result has been substantial license rents awarded as windfalls to private firms licensed in the ''public interest.'' This is a paradoxical state of affairs: Why give away valuable licenses to ''public trustees''—and then award only enough so as to protect the windfalls of the first few? Indeed, a chairman of the FCC was to escalate this error to one of ''mythological'' proportions:

> The grandest myth of the trusteeship concept is the belief that the value of licenses has remained unchanged since their granting. The Commission has ignored the fact that tremendous wealth attaches to the most desirable licenses, whose value far exceeds the tangible assets of the stations holding them. Instead of adopting regulations that would reflect the actual value of these licenses, the Commission has buried its head deeper into the regulation books and considered more obligations for these special stewards who, in turn, are usually willing to comply with

[17] A fourth hypothesis—that auctions would lead to ''chaos'' in the airwaves—is no longer relevant: auctions of FCC licenses for nonbroadcast services such as PCS have not led to any confusion over airwave access rights. Of course, the existence of active secondary markets for wireless licenses since 1927 (and even before) should have proven the simple point that assigning rights is distinct from defining rights. Yet Dallas Smythe, an FCC chief economist, critiqued Herzel's auction proposal as so impractical that it was ''of the realm in which it is merely the fashion of economists to amuse themselves.'' Dallas Smythe, Facing Facts about the Broadcasting Business, 20 U. Chi. L. Rev. 96 (1952). Coase thought Smythe's rejoinder to Herzel so ''incredibly feeble'' that it convinced him that ''if this was the best that could be brought against his proposal, Leo Herzel was clearly right'' (Coase, *supra* note 2, at 249).

[18] Ronald Coase places his research on property rights to airwaves at the center of what became Law and Economics at Chicago (Coase, *supra* note 2). Dean Lueck has elevated the research in this subfield to virtually sacred importance: ''The broadcast spectrum holds a special, almost holy, place in the economic analysis of law and the economics of property rights.'' Dean Lueck, The Rule of First Possession and the Design of the Law, 38 J. Law & Econ. 393, 419 (October 1995).

[19] R. H. Coase, The Federal Communications Commission, 2 J. Law & Econ. 1, 24 (1959).

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

> whatever the Commission asks, as long as the cost of compliance is slight.[20]

The idea that broadcast regulation was anchored on error and myth became widely influential among economic analysts.[21] The system of licensing was seen as an ill-considered policy, when auctions would have provided greater economic efficiency. Moreover, whatever public interest obligations broadcasters could supply their audiences would be maintained better as explicitly mandated terms and conditions of the license. The auction alternative appeared fastidious: it would eliminate rent-seeking by capturing rents for the Treasury, thus creating a less costly, less political, and more equitable license assignment process.[22]

B. *The Public Trustee Theory (Hypothesis 2)*

A normative critique of auctions has held that competitive bidding has been rejected for sound public policy reasons. Specifically, this theory holds that if property rights were to be awarded objectively, by the market, then regulatory control over key outputs would be lost. As formulated by William Melody, the argument against auctions not only encompassed the chaos that would result from ''market allocation''[23] but included the undesirability of sacrificing public control in either allocation of spectrum or assignment of licenses: ''The market cannot be an efficient substitute for the

[20] Mark S. Fowler & Daniel L. Brenner, A Marketplace Approach to Broadcast Regulation, 60 Texas L. Rev. 207, 221 (1982) (footnote omitted).

[21] See Eva Kalman, The Economics of Radio Frequency Allocation 108 (1993); Allard, *supra* note 14, at 112; Thomas G. Krattenmaker & Lucas A. Powe, Jr., Regulating Broadcast Programming 18 (1994) (discussing ''twin myths [of] scarcity and interference''). Coase employs slightly different terminology by objecting to ''syrupy talk about broadcasters acting in the public interest.'' Ronald Coase, Evaluation of Public Policy Relating to Radio and Television Broadcasting: Social and Economic Issues, 41 Land Econ. 161, 167 (1965). Owen, describing the licensing mechanism in the Radio Act of 1927 as ''accidental'' and ''benign,'' wrote, ''From the beginning, congressional committees and courts, with no real understanding of the technology of spectrum utilization, combined with happenstance to produce a framework of legal and policy attitudes favoring what now seem to be exactly the wrong institutional structures for the broadcast media.'' Bruce M. Owen, Differing Media, Differing Treatment? in Free but Regulated: Conflicting Traditions in Media Law 35, 36 (Daniel L. Brenner & William L. Rivers eds. 1982).

[22] There is also an efficient taxation argument for license auctions, in that substituting auction receipts for income taxes eliminates the deadweight loss associated with transferring marginal income (or profits) to the government.

[23] ''Rights to spectrum are not susceptible to legal enforcement as are private property rights. In the past, allocation by the market of rights to use the spectrum has been found to be impossible, or inefficient. The spectrum has been recognized as a social resource, by both domestic and international law, a unique form of social property.'' William H. Melody, Radio Spectrum Allocation: Role of the Market, 70 Am. Econ. Rev. 393, 394 (May 1980).

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

administrative process in achieving either allocational efficiency or the broader objectives of the process.''[24] This is the view given by broadcasters arguing against auctions,[25] by key policy makers rejecting auctions for all FCC licenses pre-1993,[26] and for broadcast licenses up through the present.[27]

The public trustee theory argues that comparative hearings enable regulators to enforce the social compact in a way that could not be reproduced under the auctions scheme. Moreover, the outputs mandated under this structure are argued to be socially productive public goods. Hence, in a global sense, zero-priced licensing could prove more efficient than auctions.[28]

Economists have largely rejected hypothesis 2, citing both theoretical and empirical criteria. Theoretically, any bundle of rights that regulators award can be sold at auction; the introduction of FCC auctions merely moves market allocation up to the initial assignment phase, one transaction ahead of reassignment in secondary markets.[29] As a factual matter, empirical research long ago established that the public interest outputs that regulators claimed to be the objective of the licensing system were not, in reality, produced by the comparative hearing process.[30] Harvey Levin found that ''FCC licensing policies appear to bolster industry rents and profits rather than channel them

[24] *Id.* at 396.

[25] ''NAB [National Association of Broadcasters] says spectrum fees would abrogate a long-standing understanding between the government and industry that local broadcasters have the right to use the airwaves for free in exchange for public service.'' Alyson Pytte, FCC Broadcast Fees Avoided in $450 Million Package, Cong. Q., July 29, 1989, at 1946. See also Warren Cohen, Halting the Air Raid, Wash. Monthly, June 1995, at 30; Neil Hickey, What's at Stake in the Spectrum War? 35 Colum. Journalism Rev. 39 (July/August 1996).

[26] This refers to policy makers defending the status quo, primarily in Congress, but also including opponents of license auctions in the administration and the FCC.

[27] ''Congress has rejected the two previous proposals for selling or leasing the spectrum, on the ground they would undercut the public interest principle embedded in the Communications Act.'' Reagan Offers Final Budget Legacy, 116 Broadcasting, January 16, 1989, at 96.

[28] Timothy J. Brennan, Economic Efficiency and Broadcast Content Regulation, 35 Fed. Comm. L. J. 117 (Summer 1983). See also Severin Borenstein, On the Efficiency of Competitive Markets for Operating Licenses, 103 Q. J. Econ. 357 (May 1988).

[29] Moreover, the monies raised at auction could be dedicated as a subsidy to fund meritorious programming—the ostensible aim of public trusteeship—directly: ''Even if one accepts the public service thesis, there are better ways of proceeding. For instance, auctioning of property rights or leasehold rights in the spectrum would produce a great deal of revenue that could be used to subsidize public service programming.'' Owen, *supra* note 21, at 47.

[30] Roger Noll, M. J. Peck, & John J. McGowan, Economic Aspects of Television Regulation (1973); Bruce M. Owen, Jack H. Beebe, & William G. Manning, Jr., Television Economics (1974).

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

into diversity and merit service generally.''[31] As Bruce Owen summed up, ``[T]he government does not live up to its own theory of regulation.''[32]

This conclusion is today broadly accepted even by noneconomists.[33] One of the most respected telecommunications policy makers is Henry Geller, a former FCC general counsel who also served as assistant secretary of commerce for telecommunications during the Carter administration. Geller, once an aggressive regulator who championed the public benefits of the social compact, was led to conclude, ``[T]he public trustee regulatory regime for [license] renewal is, and has long been, a failure.'' He offers the following consensus: ``In 1976, Commissioner Glen Robinson, echoing Ronald Coase, a University of Chicago economist and earlier critic of the FCC, described FCC regulation of broadcasting as a charade—a wrestling match full of fake grunts and groans but signifying nothing.''[34]

C. The Franchise Rents Theory (Hypothesis 3)

Recent research has shown that the licensing scheme adopted under the Radio Act of 1927 was not the result of naïveté concerning property rights but was intended to overrule the orderly property rights regime then developing.[35] The bargain instituted was a classic regulatory quid pro quo wherein incumbent radio broadcasters agreed to be subject to ``public interest'' licensing requirements in exchange for barriers to new entry. Since recognizing a ``right of user''[36] would allow new competitors to homestead unoccupied bands, broadcaster rents were enhanced by abandoning common-law property rules in favor of ``public trusteeship.'' Congress, on the other hand, was eager to protect broadcasters' rents—if it gained some measure of authority over this newly evolving medium of expression.[37] As

[31] Harvey J. Levin, Franchise Values, Merit Programming and Policy Options in Television Broadcasting, in Regulating the Product: Quality and Variety 221, 233 (Richard E. Caves & Marc J. Roberts eds. 1975).

[32] Owen, *supra* note 21, at 43.

[33] Indeed, it has been endorsed by the FCC itself. Kenneth A. Cox & Nicholas Johnson, Broadcasting in America and the FCC's License Renewal Process: An Oklahoma Case Study (Federal Communications Commission 1968); Federal Communications Commission, New Television Networks: Entry, Jurisdiction, Ownership and Regulation (final report of the Network Inquiry Special Staff, Vol. 1, October 1980).

[34] Henry Geller, 1995–2005: Regulatory Reform for Principal Electronic Media 15 (1994).

[35] Hazlett, *supra* note 9.

[36] Several terms were employed to define a property right to radio waves at common law. Senator Dill used ``right of user,'' ``adverse possession,'' and ``squatter's sovereignty'' (*supra* note 9). Others used ``pioneering rights,'' ``homesteaded rights,'' ``priority-in-use,'' ``first-in-time,'' and ``right of first appropriation.''

[37] Dill, *supra* note 9, at 80–84.

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

Krattenmaker and Powe write, ''Direct government control over program content has always been the centerpiece of federal regulation of the broadcast industry.''[38]

Senator C. C. Dill (D-Wash.), author of the Radio Act of 1927, noted that it was commercial broadcasters who first suggested a ''public interest'' standard for licensing radio stations, a view that resonated with a Congress eager to preempt private property rights. While ''priority-in-use'' rules had successfully policed airwave use during the 1920–26 period, Secretary of Commerce Herbert Hoover announced in July 1926 that he would no longer enforce these rules, thus allowing open access to radio spectrum. This prompted what was then called the period of ''the breakdown of the law.''[39] As the expression conveys, this was a clear departure from earlier policy, not—as the Supreme Court would wrongly assert in the 1943 *NBC* case—the natural anarchy that would obtain in the absence of ''public interest'' regulation. During the 7-month-long ''breakdown'' in federal enforcement of property rights, stations began to assert ''right of user'' under common law. In one ''famous case'' (as it was called in the House of Representatives debate by Congressman William H. White) the *Chicago Tribune* won an injunction in Illinois state court against a radio station that was encroaching upon the signal of its radio station, WGN.[40] Yet, traditional property rules afforded scant economic protection for industry incumbents from new rivals, on the one hand, and little scope for government regulation of program content, on the other hand. As Dill summarized congressional intent:

> *Why Congress Became Aroused on Subject*
>
> The development of these claims of vested rights in radio frequencies had caused many members of Congress to fear that this one and only remaining public domain in the form of free radio communication might soon be lost unless Congress protected it by legislation. It caused renewed demand for the assertion of full sovereignty over radio by Congress . . .
>
> [T]he purpose of Congress from the beginning of consideration concerning broadcasting was to prevent private ownership of wave lengths or vested rights of any kind in the use of radio transmitting apparatus.[41]

[38] Krattenmaker & Powe, *supra* note 21, at 1.

[39] Federal Control of Radio Broadcasting, Yale L. J. 247 (1929).

[40] Tribune Co. v. Oak Leaves Broadcasting Station, reprinted in Cong. Rec. S215-19 (December 10, 1926).

[41] Dill, *supra* note 9, at 80–81. It should be noted that there was nothing irrational about the simultaneous assertion of ''vested rights'' by individual broadcasters and the advocacy of federal preemption of property rights in favor of a ''public interest'' standard. The first

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

In an era of resource discovery, such as the 1920–26 radio market, auctions were not the most efficient license assignment method.[42] And it is now clear that the homesteading regime was ended by the Radio Act of 1927, not owing to policy-maker error but as the result of a calculated rent-sharing arrangement serving the interests of regulators and industry incumbents. Yet, what explains the longevity of comparative hearings in the ''public interest''? Why were new band allocations for FM radio, VHF-TV, UHF-TV, mobile telephony, point-to-point microwave, low-power television, MMDS (wireless cable), and many other wireless telecommunications service licenses assigned to private users by nonauction methods?

While rejecting its normative conclusion regarding social costs and benefits, the franchise rents theory salvages the public trustee theory's positive political dynamics. The broadcast licensing bargain—zero-priced rights in exchange for ''public interest'' obligations—creates an exchange that cannot be easily duplicated via an auction regime in which licensee obligations are explicitly delineated. Instead, an implicit contract is devised, similar to those emerging in the private sector where the costs of monitoring franchisee behavior are nontrivial. In fact, the result is more extreme than that seen in private markets. Whereas competition between private franchisors will constrain performance-monitoring costs, no analogous constraint is in place in the public sector, leading to an agency problem. Specifically, policy makers with a vested interest in telecommunications law have been able to internalize benefits via a zero-priced license policy much as managers of state-owned enterprises systematically underprice outputs. In creating excess demand for broadcasting rights, policy makers then broker rent-seeking competitions with politically optimal payoffs.

Broadcast regulation presents policy makers with both a special opportunity and a special problem. Whereas the benefits to be gained from influencing the distribution of rents in the broadcasting sector are particularly attractive to legislators who see the industry's outputs (programs) as inputs (publicity) into their own production functions (as suppliers of support-attracting issues and policies), there exist important constraints on regulatory behavior not found elsewhere. The most severe of these is the First

was a defense against expropriation of an asserted property interest; the second was a campaign to enhance the value of such interests. As major commercial broadcasters successfully steered regulation after the Radio Act so as to respect the quasi property rights of established, popular radio stations at the expense of marginal, upstart (and often nonprofit) broadcasters, the two strategies blended smoothly in maximizing incumbent station values. See Robert W. McChesney, Telecommunications, Mass Media and Democracy 12–37 (1994).

[42] Dean Lueck, *supra* note 18, shows the general common-law property rule of ''first appropriation'' to be dynamically efficient where productive resources are being discovered.

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

Amendment, which blocks any direct (or obvious) government influence over program content. The opportunity for policy makers to receive in-kind payments from those they regulate must surmount this institutional hurdle.

The mechanism chosen is ''public trusteeship.'' Its fundamental dynamics are Posnerian: large rents are created and awarded by regulators; in return, recipients must agree to subsidize economically nonremunerative services deemed to provide public benefit. Yet, there is a twist: this latter payoff can be economically satisfied by licensee behavior modification, meeting the implicit demands of regulators regarding program content. Hence, policy makers support the system of regulation even when promised public benefits do not accrue.

The observed failure of the system to achieve stated policy objectives, however, has confused many analysts of public trusteeship. For instance, the late Chief Judge of the D.C. Circuit, David Bazelon:

> In many ways, we now have the worst of all possible worlds. The FCC's policies . . . have hindered diversity, suppressed creativity, and fostered the domination of three large, but virtually identical networks, which exercise an unprecedented influence over the national political and cultural life. Yet these networks, far from being a bulwark of independence from the government, have been made to cringe at the slightest questioning of the regulator. We reluctantly accepted content regulation in order to promote diversity. Yet we have not achieved significant diversity, and all we are left with is content regulation.[43]

Lurking behind this apparent public policy failure, however, has been an economic success story for broadcast industry incumbents. Levin reported that about 80 percent of total profits earned by VHF television stations could fairly be considered FCC license rents.[44] Hence, the franchise rents theory summarizes the broadcast regulation transaction as follows: rents go to broadcast industry incumbents (including entry barriers via the spectrum allocation system that blocks new media competition) in exchange for which this sector of the press gives up its legal standing to be free from content controls. This view fully accepts the claim of the public trustee theory that the manner in which broadcasting licenses are initially assigned by government—the ''giveaway''—helps monitor broadcaster behavior. This is largely because broadcast rights assigned by fiat are less secure than

[43] David Bazelon, The First Amendment and the ''New Media''—New Directions in Regulating Telecommunications, in Free but Regulated: Conflicting Traditions in Media Law 52, 56 (Daniel L. Brenner & William L. Rivers eds. 1982).

[44] Harvey J. Levin, Fact and Fancy in Television Regulation 115 (1980).

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

TABLE 4

WHY COMPARATIVE HEARINGS INSTEAD OF AUCTIONS? THREE COMPETING HYPOTHESES

Theory	Auctions Feasible?	Policymakers Rational?	Comparative Hearings Economically Efficient?
Error	Yes	No	No
Public trustee	No (pre-1993) Yes (post-1993)	Yes	Yes
Franchise rents	Yes (post-1927)	Yes	No

rights assigned by competitive forces, and the system of ''regulation by raised eyebrow''[45] relies on this legal insecurity. While broadcasters are thereby willing to make program content concessions to policy makers, lax agent monitoring in the public sector allows regulators to extract a combination of (1) ineffective—but electorally popular—programming ''benefits'' for the public and (2) politically self-interested censorship.[46] Hence, the franchise rents hypothesis accepts the error theory's normative conclusion in favor of license auctions.

A summary of the competing hypotheses appears in Table 4.

[45] This has become a term of art in the broadcast licensing literature. William Mayton cites Pierson, The Active Eyebrow: A Changing Style for Censorship, 1 Television Q. 14 (1962), for this term and defines it thusly, ''The Commission in some manner suggests the conduct that it favors, and then depends on the tendency of broadcast stations to avoid putting their licenses at risk to bring in line the whole industry.'' Mayton, The Illegitimacy of the Public Interest Standard at the FCC, 38 Emory L. J. 715, 758 (1989). Ronald Coase tied licensing to program content controls in exactly the same manner: ''Speeches are constantly being made which suggest that if the industry does not do something to improve its programs, the FCC may have to take more positive action—this is what has been called regulation by the raised eyebrow. . . . This does pose a threat to freedom of the press.'' Coase, *supra* note 21, at 165. See also David Bazelon, FCC Regulation of the Telecommunications Press, 1975 Duke L. J. 213, 215 (1975).

[46] ''Censorship'' is a strong descriptor, as broadcaster self-regulation will respond to the demands of a range of policy makers, often from competing political parties and factions. Hence, regulatory constraints typically will not be overt (in distinction to rules governing popular content controls). A ''chilling effect'' on controversial speech is perhaps the more apt description of the general phenomenon. It is, however, interesting that some instances of clearly partisan censorship have been documented. See Fred Friendly, The Good Guys, the Bad Guys, and the First Amendment (1975); Daniel Schorr, Clearing the Air (1977); Pool, *supra* note 6; Matthew L. Spitzer, Controlling the Content of Print and Broadcasting, 58 S. Cal. L. Rev. 1349 (1985); Lucas A. Powe, Jr., American Broadcasting and the First Amendment (1987); Ray, *supra* note 4. See also Thomas W. Hazlett & David W. Sosa, Was the Fairness Doctrine a ''Chilling Effect''? Evidence from the Postderegulation Radio Market, 26 J. Legal Stud. 279 (January 1997).

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

IV. The Special Political and Legal Nature of Broadcasting

> The broadcast industry and Congress have been described as linked by an ''umbilical cord.'' Broadcasters control a very important commodity to politicians—electronic media exposure. . . . Robert MacNeil's analogy describing the ''tense mutual interdependence'' of Congress and the broadcast industry is apt: ''Imagine a situation of a street peddler who sells old-fashioned patent medicines. He needs a license to stay in business, and the city official who issues them is dubious about most of the peddler's wares. Yet it just happens that one product, a magic elixir, is the only thing that will cure the official's rheumatism and keep him in health. So the two coexist in a tense mutual interdependence, the peddler getting his license, the official his magic elixir.''[47]

Political coalitions view control over broadcast licenses as yielding a dual benefit stream: it brings all the benefits typically enjoyed when adjudicating a rent distribution and it yields influence over the broadcasters' outputs.[48] Those outputs are, in substantial measure, key informational inputs into the electoral process. Hence, trading between regulators and licensees is facilitated by the fact that incumbent politicians are keen to acquire favorable ''news'' or ''publicity.''[49] Alternatively, broadcasters are able to compensate policy makers for rents in all the traditional forms, plus they are able to make in-kind donations at wholesale cost.[50]

[47] Erwin G. Krasnow, Lawrence D. Longley, & Herbert A. Terry, The Politics of Broadcast Regulation 90 (1982).

[48] The ''political pork'' incentive in distributing zero-priced licenses is widely recognized. As one industry analyst noted, regarding the reluctance of Congress to approve FCC license auctions: ''But, then, who ever seriously thought politicians would concede—to some bureaucratically-administered deus ex machina—the essential role of dispensing goodies? If there are goodies to be dispensed, after all, why shouldn't politicians be able to take credit?'' Ken Robinson, Selling the People's Airwaves, Hertz-by-Hertz, 10 Telecomm. Pol'y Rev. 7 (Supp. 55, 1994).

[49] Censorship can also be modeled as an output produced by politicians. Where popular support for content controls exist, say, in limiting violence on television, office seekers may use license regulation directly as a vote-generating public policy. This would reinforce the political demand to regulate broadcasting.

[50] Perhaps even more important are negative in-kind contributions: declining to broadcast news favorable to a candidate or coalition, electing to broadcast negative information or allegations, or choosing to give airtime to a challenger are all editorial decisions. It is also likely that the retail-wholesale price margin is very large. While it is relatively expensive for a nonbroadcaster to buy airtime, and more expensive yet to match the persuasiveness of a news report with paid advertising, a broadcaster may substitute one news story (or editorial) for another at the price of the incremental ad revenue. The decline in audience and, therefore, ad revenues is likely to be small for any one editorial decision to, say, shade coverage of a local congressional incumbent, particularly when all the broadcaster's competitors have similar editorial incentives.

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

Mutually beneficial deals between regulators and broadcasters are constrained, however, by freedom of the press.[51] The U.S. Constitution ironically endows the broadcast licensee with too many rights to execute a quid pro quo with regulators. The central purpose of a contract is to bind parties in a manner that benefits both. Yet broadcasters cannot explicitly waive their constitutional rights, even if appropriately compensated. To resolve this legal impasse, the zero-priced broadcasting license is a key institutional innovation. Its importance turns out not to be diminished by positive prices paid for FCC licenses in resale markets.

A central irony of the U.S. broadcasting market is that government regulation of broadcast speech appears both commonplace and unconstitutional. ''Programming obligations have always been viewed as a trade for a near perpetual renewal of broadcast licenses,''[52] while ''[a] proposal to [regulate print publishing] would, of course, be rejected out of hand as inconsistent with the doctrine of freedom of the press.''[53] How has broadcasting—unique among the press media—come to be regulated? *Red Lion,* the 1969 Supreme Court ruling granting the federal government broad scope to regulate broadcasters in ways the First Amendment prohibits for print media, pinned its logic on the observed excess demand for FCC licenses:

> Where there are substantially more individuals who want to broadcast than there are frequencies to allocate, it is idle to posit an unabridgeable First Amendment right to broadcast comparable to the right of every individual to speak, write, or publish. If 100 persons want broadcast licenses but there are only 10 frequencies to allocate, all of them may have the same ''right'' to a license; but if there is to be any effective communication by radio, only a few can be licensed and the rest must be barred from the airwaves. It would be strange if the First Amendment, aimed at protecting and furthering communications prevented Government from making radio communication possible by requiring licenses to broadcast and by limiting the number of licenses so as not to overcrowd the spectrum. This has been the consistent view of the Court.[54]

[51] Public opinion may also be quite hostile to overt censorship, and this reinforces the legal constraint supplied by the First Amendment. As noted, however, certain forms of content control are popular politically, which mitigates this effect.

[52] Timothy B. Dyk, Full First Amendment Freedom for Broadcasters: The Industry as Eliza on the Ice and Congress as the Friendly Overseer, 5 Yale J. on Reg. 299, 318 (Summer 1988).

[53] Coase, *supra* note 19, at 7.

[54] Red Lion Broadcasting Co. v. Federal Communications Commission, 395 U.S. 367, 388–89 (1969). The Supreme Court also made it plain that the broadcaster's First Amendment rights were insecure because it possessed no propertied interest in spectrum: ''Licenses to broadcast do not confer ownership or designated frequencies, but only the temporary privilege of using them.'' *Id.* at 391. A privilege, of course, is not a right, a fact that Kratten-

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

Given the Court's interpretation of the First Amendment, the social compact for broadcasting cannot be duplicated under an auction regime. If license rents are bid away in the initial assignment process,[55] there would be no (*a*) excess demand for licenses or (*b*) any special privilege granted. The underlying rationale for greater regulatory discretion over broadcasters than over newspapers disappears.[56] In finding that ''the First Amendment confers no right on licensees . . . which the government has denied others,''[57] the Court made clear the importance of government discretion, discretion that evaporates in a competitive bidding process.

Federal courts have consistently held that the manner in which the government initially awards license rents colors the constitutional rights held by broadcasters, a position most explicitly outlined in the 1974 decision in *WEFM*.[58] There the D.C. Circuit Court of Appeals considered the appropriate scope of FCC regulation in a situation where a radio licensee was attempting to transfer its assets to a buyer who planned to change the station's format from classical to contemporary music. Although regulating formats clearly impinges on the broadcaster's freedom of expression and would be impermissible if applied to a publisher, the Court strongly endorsed federal radio controls: ''We think it axiomatic that preservation of a format [that] would otherwise disappear, although economically and technologically viable and preferred by a significant number of listeners, is generally in the public interest.''[59] This passage ends with a footnote explaining how such regulation of programming is legal:

---

maker & Powe highlight in explaining the truncated nature of broadcasters' First Amendment protections: ''The pages of *Red Lion*'s First Amendment discussion were dominated by three words: *license, licensed,* and *licensee.* More applicants seek a license than will obtain one; broadcasters are licensed, thus, they are licensees. A license is a privilege, not a right: 'licenses to broadcast do not confer ownership of designated frequencies, but only the temporary privilege of using them.' The repeated use of some variant of *license* set an unmistakable tone for an unmistakable result.'' Krattenmaker & Powe, *supra* note 21, at 166 (emphasis in original, citing from *Red Lion* decision, *id.* at 394).

[55] Of course, as licenses are traded in secondary markets, license rents go to initial assignees, and (market) license values appear as quasi rents. The legal interpretation differs from this economic view: the law sees the original book value (''prudent investment cost'') of the license as constant across market transactions and any premia paid as a purely private speculation on future returns.

[56] As noted by Abbott Lipsky, Jr.: ''*Red Lion* emphasized that the need for access obligations depends constitutionally upon the peculiar mechanics of the frequency allocation system, and the court seemed to defer to the FCC's judgment that the resulting editorial power of the broadcast licensee justified interference with the editorial process.'' Lipsky, Reconciling *Red Lion* and *Tornillo:* A Consistent Theory of Media Regulation, 28 Stan. L. Rev. 563, 571 (February 1976) (footnote omitted).

[57] *Red Lion, supra* note 54, at 390–1.

[58] Citizens Committee to Save WEFM v. FCC, 506 F.2d 246 (1974).

[59] *Id.* at 268.

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

> It cannot be otherwise when it is remembered that the radio channels are *priceless* properties in limited supply, owned by all of the people for the use of which the *licensees pay nothing.* If the marketplace alone is to determine programming format, then different tastes among the totality of owners may go ungratified. Congress, having made the *essential decision* to license at *no charge* for private operation as distinct from putting the channels *up for bids,* can hardly be thought to have had so limited a concept of the aims of regulation.[60]

V. Controlling Content via Broadcast License Rents

> [T]here are a large number of people who well recognize that the broadcasters function under a very splendid monopoly protection for their use of a particular section of the spectrum. If this section of the [Fairness Doctrine] law or regulations were to be repealed, I would be strongly moved to perhaps test their dedication to competition by offering provisions to the law which might necessarily either deal more fairly with renewals or something of that kind, or to deal perhaps with the issue of perhaps going so far as requiring payments for the use of a portion of the spectrum by broadcasters, or perhaps simply eliminating the monopoly under which they function so splendidly under the protection of a broad federal mandate which ensures them in their ability to enjoy splendid financial returns on the use of a public resource. [Congressman John D. Dingell, Chairman, House Committee on Energy and Commerce, 1987][61]

Victor Goldberg[62] notes that regulators may rationally grant firms special rights that yield incentives to, for instance, invest more in specific capital. He uses regulatory barriers to entry—licenses—as an example of just such a situation. In presenting a plausible argument for the efficiency of such devices, Goldberg analogizes to competition-limiting institutions found in the private sector. There it is often observed that what appear to be pure rents are better characterized as ''forfeitable collateral bonds''—contract innovations to deter agents from opportunistic behavior.[63]

[60] *Id.* (emphasis added).

[61] Legislation to codify the Fairness Doctrine: Hearings on H.R. 1934 before the Subcomm. on Telecomm. and Fin. of the House Energy and Commerce Comm., 100th Cong., 1st Sess. 10 (April 7, 1987).

[62] Victor Goldberg, Regulation and Administered Contracts, 7 Bell J. Econ. & Mgmt. Sci. 426 (Autumn 1976).

[63] Benjamin Klein, Robert G. Crawford, & Armen A. Alchian, Vertical Integration, Appropriable Rents, and the Competitive Contracting Process 21 J. Law & Econ. 297, 306 (October 1978).

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

An analogy to the *Coors* case[64] explains this logic.[65] Coors brewed a beer that relied upon a unique industrial process, one that led to quality deterioration if the product were mishandled by wholesalers. These middlemen were costly to monitor closely. The alternative solution adopted by Coors was to establish relatively lucrative distributorships for Coors wholesalers and to include unilateral termination clauses in their contracts. In a nutshell, the brand-name company offered its agents a premium but threatened to quickly terminate that premium should the agent be found cheating. The ostensibly supracompetitive payment (the lucrative franchise) was not, in fact, a ''giveaway'' but part of a strategic incentive scheme wherein the specter of lost compensation promoted performance that was costly to directly monitor.

In a similar situation regarding Tastee-Freeze franchises,[66] Klein, Crawford, and Alchian find that quasi rents can also be used to monitor agent behavior. In general, agents with specific capital at risk tend to be more attentive to the interests of principals. Indeed, it may pay manufacturers (or consumers)[67] to consciously pay a premium so as to create specific capital.[68]

This incentive structure aptly describes the effect of zero-priced licenses on the underlying regulatory regime, public trusteeship. In the case of broadcasting, explicit sanctions cannot be levied for poor performance (say, objectionable programming) for constitutional reasons already described.[69] From the perspective of regulators, this makes monitoring costs infinite. But the strategic use of rents to police the behavior of licensees can be substituted for an explicit contract.

The regulatory oversight of broadcasters has long been premised upon a quid pro quo. As Congressman Edward Markey, then chair of the House

[64] Adolph Coors v. FTC, 497 F.2d 1178 (10th Cir. 1974), cert. denied, 419 U.S. 1105 (1975).

[65] This discussion follows from facts and analysis in Benjamin Klein & Kevin Murphy, Vertical Restraints as Contract Enforcement Mechanism, 31 J. Law & Econ. 265 (October 1988).

[66] *In re* Tastee-Freeze International, 82 F.T.C. 1195 (1973).

[67] Benjamin Klein & Keith B. Leffler, The Role of Market Forces in Assuring Contractual Performance, 89 J. Pol. Econ. 615 (August 1981).

[68] This logic goes far beyond Coors and Tastee-Freeze; it is widespread in the marketplace. Franchise contracts involving resale price maintenance or exclusive territories can be seen as incentive structures motivating retailer sales effort (Lester Telser, Why Should Manufacturers Want Fair Trade? 3 J. Law & Econ. 86 (1960); Paul H. Rubin, The Theory of the Firm and the Structure of the Franchise Contract, 21 J. Law & Econ. 223 (April 1978)), and pension ''cliff vesting'' in labor contracts is used to motivate employee work effort (Sherwin Rosen, Implicit Contracts: A Survey, 23 J. Econ. Literature 1144 (September 1985); Edwin P. Lazear, Pensions and Deferred Benefits as Strategic Compensation, 29 Ind. Rel. 263 (Spring 1990)).

[69] This assumes that broadcasting rights were created and distributed like other economic goods, and no excess demand was created by public policy.

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

Subcommittee on Finance and Telecommunications, argued in the Fairness Doctrine debate:[70] ''It does not seem to me to be an outrageous idea that broadcasters—who are granted, at no cost, the exclusive use of a scarce public resource, the electromagnetic spectrum—be required to inform the public in a responsible manner. . . . We do not exact any monetary payment for the use of the spectrum, but we do ask broadcasters to serve in the public interest.''[71]

But why does the price of the license have be zero to include such socially laudable terms within the license? This rhetorical query misses the contracting dynamic embedded within public trusteeship. For example, Jora Minasian has written:

> It may further be argued that allowing radiation rights to be used as the owner wishes will emasculate ''socially desirable'' censorship—control over the activities of the right holders. This argument rests on the mistaken idea that the market and *any* censorship (control) are incompatible. This, of course, is incorrect. Censorship can be, and is brought about by limiting the rights of private property, allowing them to be exercised within constraints established by the political process.
>
> A simple solution, as far as program control is concerned, would be to incorporate a proviso in the rights of radiation themselves—similar to the licenses that are issued to taxicabs where property rights in the use of the automobile are restricted. In a similar fashion, it could also be required that those who hold rights of radiation can engage in, for example, television broadcasting, if and only if they are able to obtain a license to do so.
>
> Such a license could specify the required time to be devoted to certain types and quality of programs. There is no obvious reason why this method is inferior to the present method.[72]

One ''no[t] obvious reason'' Minasian's explicit censorship scheme is a nonstarter is that it is unconstitutional. The ''public interest'' standard has wiggled free of this constraint owing to an exemption granted by the courts

[70] The Commission abolished the Fairness Doctrine in August 1987, touching off a firestorm of protest in the Congress. See Federal Communications Commission, Report on the Fairness Doctrine, 102 F.C.C. 2d 145 (1985); Edward J. Markey, The Fairness Doctrine, Congress, and the FCC, 6 Comm. Law. 1 (Summer 1988); Thomas W. Hazlett, The Fairness Doctrine and the First Amendment, 96 Pub. Interest 103 (July 1989).

[71] Markey, *supra* note 70, at 26–27. In 1987 House hearings, proponents of the doctrine (including two former FCC chairmen) repeatedly cited the manner in which broadcast licenses were obtained from the federal government. The implication was that to be uniquely singled out for a special favor obligated a licensee to provide a certain level of quality, in this instance characterized as ''fairness.'' Hearings before the Subcomm. on Telecomm. and Fin. of the Comm. on Energy and Commerce, *supra* note 61.

[72] Jora Minasian, Property Rights in Radiation: An Alternative Approach to Radio Frequency Allocation, 18 J. Law & Econ. 221, 268 (1975).

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

on the basis of zero-priced license awards. That this is bad law is readily conceded here,[73] yet that verdict only bolsters the explanatory power of the franchise rents hypothesis. A second reason that explicit obligations (content controls) are rejected by policy makers is that regulators (and, hence, broadcasters, who are receiving compensation for their cooperation) might well prefer to impose unlisted ''duties'' that are only lightly enforced. This would be the case where the policy officials actually seek to obtain favorable publicity and proincumbent news coverage. Then the terms of the deal are best left vague, with public discussion focused on popular licensee commitments that invariably go unsatisfied and enforcement of political objectives left to ''raised eyebrows'' and ''chilling effects.''

The Federal Communications Commission has historically elected to leave its standards for deciding the ''public interest'' ill-defined. This pattern has been observed by the FCC itself.[74] For instance, in a rule making on radio regulation, Commissioner James Quello commented on the process whereby thousands of radio licenses were renewed on a 3-year cycle: ''For most licensees, the triennial shipment of pounds of paper to Washington, D.C. is [a] ritualistic, time-consuming, expensive and nonproductive . . . method of ferreting out those few licensees who have failed to meet a subjective 'public interest' standard of performance.''[75]

While vague statutes that regulate expression are routinely ruled unconstitutional when applied in other contexts,[76] the fact is that for 70 years radio and television licenses have been issued according to ''public interest'' determinations requiring mounds of paper and ''ritualistic'' documentation. This is no small achievement for policy makers who internalize gains—on less conspicuous margins—from exercising such authority.

[73] The ''physical scarcity'' logic of both *NBC* (National Broadcasting Company, Inc. v. United States, 319 U.S. 190 (1943)) and its progeny, *Red Lion* (*supra* note 54), has been convincingly critiqued. See Coase, *supra* note 19; Matthew L. Spitzer, The Constitutionality of Licensing Broadcasters, 64 N.Y.U. L. Rev. 990 (1989); Jonathan Emord, Freedom, Technology, and the First Amendment (1991); Robert Corn-Revere, New Technology and the First Amendment: Breaking the Cycle of Repression, 17 Hastings Comm. & Ent. L. J. Comm/Ent 247 (Fall 1994); Krattenmaker & Powe, *supra* note 21; Thomas W. Hazlett, Physical Scarcity, Rent Seeking, and the First Amendment, 97 Colum. L. Rev. 905 (May 1997); Charles W. Logan, Getting beyond Scarcity: A New Paradigm for Assessing the Constitutionality of Broadcast Regulation, 85 Cal. L. Rev. 1687 (December 1997).

[74] The former chairman of the FCC, Newton Minow, has recently written, ''Today, the [1934] Communications Act stands as a monument to the mistake of writing into law vaguely worded quid pro quos. Because the act did not define what the public interest meant, Congress, the courts, and the FCC have spent sixty frustrating years struggling to figure it out.'' Newton N. Minow & Craig L. LaMay, Abandoned in the Wasteland 5 (1995).

[75] Fed. Comm. Comm'n., Notice of Inquiry and Proposed Rulemaking: Deregulation of Radio, 44 Fed. Reg. 57,636, 57,716 (October 5, 1979).

[76] See, for example, Reno v. ACLU, 117 S. Ct. 2329 (1997).

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

VI. Are License Rents at Risk?

> [D]espite their tremendous influence, the networks have never developed the leverage to free the broadcast media from government influence. On the contrary, the tremendous stakes in the highly concentrated television medium make the networks particularly sensitive to the prevailing political winds at the FCC, in Congress, and in the White House. And the government has fostered network sensitivity to government wishes by making clear that the failure to respond to the government's concept of appropriate program content would jeopardize the all-valuable license. I am reminded by one broadcaster who observed: ''We all live or die . . . by the FCC gun.''[77]

Licensees tend to be responsive to regulators even if licensees are only rarely revoked (or not renewed).[78] The expected cost of even a modest threat looms large, and there are ways short of nonrenewal to shave rents. A licensee provocation resulting in the FCC's scheduling its renewal application for a formal hearing, for instance, imposes substantial legal costs on the broadcaster. And, with large sunk investments (licenses) at stake, even a small increase in the probability of nonrenewal imposes a substantial expected cost on a licensee who challenges the terms of the implicit regulatory contract. Depending upon the financial gains to be realized from such behavior, disciplinary sanctions may be effective well short of complete expropriation.

The logic of this regulatory enforcement tool is a commonplace within the broadcasting industry. Indeed, Mayton describes the effort in the 1970s by Nixon's FCC chairman, Richard Wiley, to influence the television networks' programming decisions:

> [W]hile he disclaimed the need for any ''formal Commission action'' (he worried that such action would raise ''severe First Amendment . . . problems''), by various informal contacts, meetings, and telephone conversations with network leaders, [he] nonetheless pressured the networks into adopting a ''family viewing policy'' that restricted prime time programming. This action was challenged in court, on the grounds that the Commis-

[77] David Bazelon, The First Amendment and the ''New Media''—New Directions in Regulating Telecommunications, in Free but Regulated: Conflicting Traditions in Media Law 52, 55 (D. Brenner & W. Rivers eds. 1982).

[78] In the history of broadcast regulation only a handful of the thousands of radio and TV licenses issued and renewed every 3, 5, or 7 years have ever been revoked. See Bazelon, *supra* note 43; Powe, *supra* note 46. The FCC could cite only one instance of a content-based nonrenewal in radio (FCC, *supra* note 75, at 57,659).

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

> sion, while avoiding formal regulation, had by a pattern of threats and intimidation induced a system of program controls.
>
> The district court, in a long and elaborate opinion, found that Commissioner Wiley had ''foisted a policy on the networks'' in violation of the First Amendment. On appeal, however, this judgment was vacated but not on the merits. Instead, the court of appeals found that the Commission's action was not sufficiently definitive to support court intervention in an area ''primarily'' committed to the Commission. Ironically, the very practice at issue, the informal Commission pressures and intimidation, by that informality saved the Commission from the courts.[79]

In 1962, the late economist Harvey Levin proposed a solution to the failure observed in getting broadcasting regulation. He argued that either television licenses spell out broadcaster obligations in detail and contain real sanctions if unfulfilled, or licenses should be sold by competitive bid.[80] The problem he saw with the first approach was that ''[u]nfortunately, this might well impose a straight-jacket on program innovation, impair the industry's creative-experimental capacities, and raise unwanted threats of government intrusion.''[81] In logically presenting the auction alternative to this catch-22—loose regulation does not work, and tight regulation will be neither politically palatable nor legal—Levin draws out the elements of the policy decision not to employ competitive bidding. While policy makers could have captured rents via auctions and used such rents to subsidize announced public interest goals directly,[82] they chose to stick with an evidently failing regulatory structure. Revealed preference suggests the chosen policy delivered benefits that could not be arranged via explicit contract.

VII. Excess License Demand and the Public Sector Agency Problem

Andre Schleifer and Robert Vishny pose the following question: Why are there ''pervasive shortages under socialism''?[83] Their answer, that socialist firms seek to distribute rents in the interests of their managers rather than

[79] Mayton, *supra* note 45, at 759 (footnotes omitted).

[80] ''The issues facing American broadcasting today are twofold. Either the regulators must impose far less ambiguous service standards than hitherto, even to the point of requiring compulsory internal subsidization by licensees; or else Congress must authorize them to recapture franchise value for the whole community.'' Harvey J. Levin, Federal Control of Entry in the Broadcast Industry, 5 J. Law & Econ. 49, 66 (1962).

[81] *Id.* at 66.

[82] *Id.* at 67.

[83] Andre Schleifer & Robert Vishny, Pervasive Shortages under Socialism, 23 Rand J. Econ. 237 (April 1992).

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

on behalf of their (government) owners, is highly instructive. Because official profits of the state-owned enterprise will flow to the central authority, the socialist firm will often elect to capture rents by selling its output for below-market prices plus some unofficial payment (which is captured by firm management).[84] Their logic is easily transferable: ''if the [socialist] industry could pick both its price and the quantity it produces, it would set the price equal to zero (to minimize what it perceives to be its marginal cost) and set the output at the point where the marginal revenue from producing more is equal to zero.''[85] This aptly describes both the entry barriers creating artificial spectrum scarcity and the intentional underpricing of FCC licenses issued.

The Schleifer and Vishny argument is compelling in describing the structural result but is essentially unfulfilling regarding the stability of this equilibrium. Why does the central authority not simply eliminate such rent dissipation by instituting market-clearing prices, maximizing social output, and redistributing via the tax system? Greater transfers are theoretically possible because national income is higher with market-clearing prices.

The inefficiency of price controls (or the inefficiency of zero-priced licenses) is seen in equilibrium owing to an agency problem: those policy makers who set prices may be ''skimming'' by diverting competition from money bids to the public sector treasury to other forms of payment. This explains common ''everyday'' shortages, such as the systematic underpricing of Rose Bowl tickets: ''Each New Year's Day, for the Rose Bowl football game in Pasadena, California, sure as fate, more tickets are wanted than are available at the price set. . . . Why does the Rose Bowl Association refuse higher offers from frustrated buyers? Why does it refuse greater wealth?''[86]

The policy maker within this nonprofit organization maximizes utility by ''extend[ing] favors to selected applicants for tickets.''[87] This access internalizes benefits, as ''his prestige is increased: he is invited to the best places, clubs and circles; and even when he buys a car or furniture, past favors are fondly and effectively recalled.''[88] Agents may have strong incentives to underprice outputs in nonprofit organizations lacking effective mechanisms for limiting such dissipation.

[84] The authors allow that firm managers may get to retain some of the firm's official earnings; as the effective marginal tax rate imposed on the firm drops from 100 percent, the results of the analysis soften correspondingly. Firm managers may also be constrained by profit quotas imposed by the central authority.

[85] Shleifer & Vishny, *supra* note 83, at 241.

[86] Armen A. Alchian & William R. Allen, University Economics 145 (1972).

[87] *Id.* at 146.

[88] *Id.*

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

Much as managers of socialist firms, policy makers have traditionally priced access to the ''public's airwaves'' so as to produce excess demand. The political discretion created by the rent seeking for zero-priced licenses translates not only into the standard social influence of the rational Rose Bowl ticket allocator but into a regulatory authority that would be otherwise foreclosed—content controls on the (broadcast) press.

VIII. Breaking Away from Comparative Hearings

The motivation for ''public trusteeship'' has been the regulation of broadcasters, and this paradigm has historically dominated the spectrum allocation process. The Federal Radio Act established public interest licensing of wireless services when broadcasting was virtually the sole concern of regulators, although certain bands have always been open to nonbroadcast use (for instance, ship-to-shore radios, point-to-point relay service, and amateur short wave).[89] In the words of Senator Clarence Dill: ''The requirement of serving the 'public interest' has been applied to radio largely because the grant of the privilege of using a certain frequency for a certain length of time is such a great gift to confer upon a licensee. This is especially true of broadcasters. Congress legislated primarily concerning broadcasting when it established this test.''[90]

It is apparent that broadcasting dominated FCC spectrum policy up through the 1970s and that nonbroadcast services emerged to challenge this ''broadcast hegemony'' in the 1980s.[91] A simple comparison of the relative economic importance of broadcast services (AM and FM radio, VHF and UHF television) versus land mobile services shows this. In 1967 the Federal Communications Commission published annual ''cost of ownership'' figures for these two broad categories,[92] including amortization and operating

[89] It is interesting to note that the Radio Act of 1912, motivated by the Titanic disaster and concerned mainly with these three services in a prebroadcasting environment, allowed for open entry subject to Department of Commerce rules ''minimizing interference.'' In contrast, the Radio Act of 1927, which established the ''public interest'' test for licensing, was crafted in response to the creation of commercial broadcasting.

[90] Dill, *supra* note 9, at 88.

[91] The historical importance of broadcasting at the FCC has been observed by Ken Robinson, a former top agency official: ''Twenty years ago, remember, the Broadcast Bureau was the Angevin empire or duchy of Burgundy of the entire FCC operation. That is, the Broadcast Bureau commanded the lion's share of resources and attention.'' Robinson, Oz the Great and Terrible Gets Beat Up, 12 Telecomm. Pol'y Rev. 1, at 4 (1996). Robinson goes on to note the fading importance of broadcasting in FCC decision making, as it is eclipsed by wireless telephony and other telecommunications services.

[92] Because market data on aggregate license values were largely unavailable, this was the basis on which uses of the spectrum were compared for their relative importance. See Harvey J. Levin, The Invisible Resource (1971).

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

TABLE 5

BROADCASTING VERSUS CELLULAR LICENSE VALUES, 1990

Service	Net New Licenses Issued, 1980s (% increase)	Service Bandwidth (MHz)	Total License Value (billions of dollars)
Broadcast TV	413 (42.6)	402	N.A.
AM and FM radio	1,508 (19.2)	21	N.A.
All broadcasting	1,921 (21.8)	423	11.5
Cellular MSAs	610 (∞)	50	80
Cellular RSAs	858 (∞)	50	10*

NOTE.—MSA = metropolitan service area (as opposed to rural service area); RSA = rural service area.

SOURCE.—National Telecommunications and Information Administration, U.S. Spectrum Management Policy: An Agenda for the Future (February 1991); Congressional Budget Office, Auctioning Radio Spectrum Licenses (March 1992).

* Estimates are based on one-fourth as much population in rural service areas as in metropolitan service areas and per population values one-half those for MSAs (Thomas W. Hazlett & Robert J. Michaels), The Cost of Rent-Seeking: Evidence from Cellular Telephone License Lotteries, 50 S. Econ. J. 425 (January 1993).

expenses. It found broadcasting to be about six times as economically ''large'' as land mobile services.[93] By 1990, the relative situation was reversed. The Department of Commerce estimated the total transaction value of the licenses used in broadcasting (again including all radio and TV) to be about $11.5 billion, while the value of FCC cellular licenses used in metropolitan service areas (covering about 80 percent of the U.S. population) totaled approximately $80 billion.[94] (See Table 5.)

The rise of nonbroadcast services began to impact federal spectrum policy as early as the late 1960s, when a House of Representatives panel complained that ''broadcast interests had been allocated 87% of the available spectrum below 960 MHz [the most utilizable bands], compared to only 4% for mobile communication as a whole and less than 1% for mobile telephony.''[95] The dominance of broadcasting would fade as new telecommunications technologies developed in the 1970s and 1980s. Economically important wireless services emerged where broadcasting's ''social compact'' was not at issue, thus lowering the net benefits associated with comparative hearings for key policy makers.

[93] *Id.* at 129.

[94] National Telecommunications and Information Administration, U.S. Spectrum Management Policy: An Agenda for the Future (February 1991); Congressional Budget Office, *supra* note 5.

[95] George Calhoun, Digital Cellular Radio 48 (1988).

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

A. Lotteries

1. Reform in 1981.—Congress granted the FCC authority to assign nonbroadcast license rights by lottery in the 1981 budget. The timing and context of reform are important for two reasons. First, the budget does not go through the same legislative obstacle course as communications legislation. When a policy reform is considered separately, it must flow through the respective oversight committees. Such committees are composed of legislators who possess considerable human capital in the adjudication of regulatory disputes at the agencies that they oversee (including the FCC). They are heavily invested in the process whereby rents are created and apportioned via regulation. The budget process provides an alternative legislative path for reform, one that bypasses many of the roadblocks erected by policy makers vested in public trusteeship.[96]

Second, 1981 was the first year of a new governing coalition: the White House and the U.S. Senate became Republican for the first time in a generation. Political leadership was less tied to the old system of quids and quos, and more amenable (at least temporarily) to reform. Moreover, the 1981 budget was referred to as the first—and only—''Reagan budget.'' That is, a Republican Senate was joined by an effective Republican House majority (the so-called boll weevils providing Democratic swing votes) to pass the White House proposal. This coalition featured different constituent support, and hence distinct political strategies, than the coalition it briefly supplanted.[97]

Still, license allocation by lotteries is baffling: Why should the government impose substantial application costs on private parties and then allow

[96] Historically, the sharpest support for abandoning comparative hearings within Congress has emanated from the Budget or Appropriations Committees. Ray, *supra* note 4. Members of these committees tend to be less interested in regulation of telecommunications service providers than are members of the oversight committees, and more interested in increasing government revenues.

[97] The relevance of this political fact may have been revealed a decade later when Congressman Ed Markey (D-Mass.), then chairman of the House Telecommunications and Finance Subcommittee, held hearings on spectrum policy. The Bush White House dutifully sent its deputies to testify in favor of license auctions. One of their arguments was that lotteries had invited speculative lottery applications, which abused the license assignment process. After listening to some of the horror stories, Markey told Bush administration Assistant Secretary of Commerce Janice Obuchowski: ''Secretary Obuchowski, as you know, this idea is a Reagan idea, the lottery. It was a concept which was developed in order to streamline the system. If you are unhappy with the lottery system, fine. Come to us. But you have to remember that the reservations I had about the lottery system went to the point that it did away with the comparative hearing . . . My concern was that I wanted to have a comparative hearing right from the get-go, and that is something that we have avoided.'' (See A Bill to Establish Procedures to Improve the Allocation and Assignment to the Electromagnetic Spectrum, Serial No. 102-2: Hearings on H.R. 531 before the Subcomm. on Telecomm. and Fin. of the Comm. on Energy and Commerce, 102d Cong., 1st Sess. 89 (February 21 and March 12, 1991)).

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

rents to be distributed (almost) randomly? The efficiency losses were easily anticipated and soon documented.[98] And the political embarrassment associated with speculative efforts to win licenses, including a number of well-publicized fraud cases, was significant.[99] How could this squandering of public funds without even a fig leaf of ''public interest'' be considered superior to assignment by auction?

Lotteries became the political optimum in license assignment policy because, for a time, they beat the relevant alternatives: comparative hearings and auctions. Both pairwise comparisons are revealing.

2. Why Lotteries Were Preferred to Comparative Hearings and Auctions.—A nonbroadcast technology, cellular telephony, had become the primary focus of FCC spectrum policy by 1981. While delayed for over a decade by a bureaucratic bottleneck at the commission,[100] the wireless communication technology was ready to be licensed. The commission had decided on a radically deconcentrated licensing scheme, carving the United States into 734 nonoverlapping service areas, with two licenses allocated to serve each area. This was a very popular policy on Capitol Hill, where the idea of ''localism'' is strong.[101] The economic waste evident in such a structure was apparent but not determinative.[102]

[98] For instance, a 1985 FCC article delineated the high cost of lotteries (where expensive applications were required) compared to auctions. See Kwerel & Felker, *supra* note 5.

[99] Ironically, Congress—after repeatedly refusing the commission's request for auction authority—later called FCC officials to task for awarding such unseemly windfalls. As reported in the *Washington Post* in 1991, ''Dingell and Markey wanted to know what steps the FCC took prior to accepting applications 'to minimize the ability of speculators to abuse the commission's procedures.' '' The article went on to note, ''The reference is to years of cellular telephone lotteries whose winners would resell their licenses quickly to well-heeled buyers who paid millions of dollars. In fact, one of the administration's rationales for ending lotteries is abuse in the cellular market. It has estimated that the government lost anywhere from $46 billion to $80 billion (a 1990 Department of Commerce estimate of total cellular license values) on the resale of cellular licenses because of the lottery process. It is expected that Commerce Secretary Robert Mosbacher will point out when he testifies before the Senate communications subcommittee that there is a 'brisk business' in the sale and transfer of cellular franchises—the equivalent of a private auction of spectrum rights. To make its point, the administration put together a three-minute video poking fun of the lottery system, editing in sections of the 'Lotto America' broadcast to show the capriciousness of the current system that uses four hot-air machines that pop out numbered Ping-Pong balls to pick winners.'' Cindy Skrzycki, Congress Mulls New Ways for FCC to Divide Broadcast Spectrum, Wash. Post, June 26, 1991, at F1, F3. Nonetheless, the Congress again declined to enact the administration-backed auction legislation before it in both that year and the next.

[100] Calhoun, *supra* note 95, offers a good, if frustrating, account of the FCC's cellular rule making.

[101] The Washington joke asks, ''What is the perfect weapons system?'' The answer: ''A tank that may or may not fire, but is manufactured in 435 congressional districts.'' See Hedrick Smith, The Power Game (1989).

[102] Because cellular is a mobile service, the efficiency case for allowing nationwide licenses is strong. John McMillan, Selling Spectrum Rights, 8 J. Econ. Persp. 145, 151 (Summer 1994). Other countries routinely license nationwide cellular (and now PCS) suppliers;

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

Comparative hearings for over 1,400 cellular licenses would have proven an administrative nightmare, and the FCC strongly advised Congress that it desired a less burdensome licensing method. There were no program content issues at stake, so ''public interest'' considerations faded. Moreover, Congress was enthused about the prospect of hundreds of new federally licensed ''local'' businesses. In essence, the administrative costs of comparative hearings rose relative to the political benefits when cellular telephony eclipsed broadcasting as the focus of the commission's license assignment duties.

Most important, lotteries did not establish a precedent that license rents belonged to the Treasury. Hence, lotteries threatened the comparative hearings process for broadcast licenses far less than did auctions, the FCC's preferred policy rejected by Congress. The nonbroadcast license auction precedent would predictably increase political pressure to extract broadcast license rents—as verified in the period following the eventual auction reform.[103] Avoiding this outcome mitigated opposition from interests vested in public trusteeship.

B. Auctions for Nonbroadcast Licenses Authorized in 1993

A strikingly similar story can be told with respect to the emergence of FCC license auction authority in 1993. Nonbroadcast services continued to increase in relative importance,[104] as the introduction of cellular telephone service in the 1980s had been wildly successful.[105] Spectrum for Personal Communications Services (PCS), the next generation of wireless telephony, had been allocated by the commission.[106] The existing value of cellular tele-

---

only Japan and Canada had as many as 10 geographically distinct franchise regions for analog cellular among the 22 countries surveyed in an OECD study, with all the remaining (save the United States) having just one. Kalman, *supra* note 21, at 85–86. The costly nature of U.S. policy was documented by the commission, which noted in 1992 that the cost of agglomeration in the cellular industry (as the market attempted to piece together two national networks, Cellular One and Mobile Link) had likely consumed over $1 billion in brokers' fees alone.

[103] See discussion *infra,* Section VIIIC and Section VIIID.

[104] A November 1992 FCC study specifically noted the fact that a UHF TV station license in Los Angeles could be purchased for under $6 million per MHz, while cellular licenses were fetching from $70 million to $160 million. Kwerel & Williams, *supra* note 8.

[105] The value of wireless telephone service remarkably exceeded market expectations for several years, as demonstrated by the fact that cellular license prices increased virtually monotonically in major private market deals registered between 1985 and 1990. Hazlett & Michaels, *supra* note 5.

[106] Auction authority, when granted by Congress, was linked to the PCS allocation implicitly and explicitly. The commission was required to issue its PCS rules prior to exercising auction authority and was to lose auction authority if PCS were not licensed within 2 years. Allard, *supra* note 14, at 126, 129.

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

phone licenses, allotted 50 MHz of spectrum nationwide, was known to be in the neighborhood of $90 billion.[107] PCS, to be licensed as a cellular competitor having access to at least 110 MHz of nationwide spectrum,[108] was anticipated to be of substantial social value.

Five political factors made the shift to auctions palatable to Congress, at least two of which obtained only in 1993. First, just as in the authorization of lotteries, broadcast licenses were exempted from assignment by competitive bidding. Comparative hearings would continue to be used for radio and TV.[109] Second, a sweetener was added to the auction proposal—preferences for ‘‘designated entities.’’[110] In essence, Congress directed the commission to handicap certain license auctions such that particular licenses would be won by members of certain groups. This addendum to the auction legislation preserved some significant level of regulatory discretion, thus limiting the diminuation of rent seeking via competitive bidding procedures.

Third, the strong opposition of broadcasters to the auctions precedent was mitigated by passage of the 1992 Cable Consumer Protection and Competition Act. The only veto overridden by Congress during the Bush administration, the Cable Act passed on October 5, 1992. It was probroadcaster legislation at several levels: it shifted property rights toward broadcasters by reforming copyright law and reinstituting ‘‘must carry’’ rules, and it imposed rate controls on cable systems that broadcasters anticipated would lower cable program quality and increase broadcaster audience share.[111] (So

[107] See Table 5.

[108] The 1994 PCS rule making ended up allocating 140 MHz for PCS: three 30 MHz licenses; three 10 MHz licenses; and 20 MHz for unlicensed PCS access, such as wireless local area networks. Federal Communications Commission, Memorandum Opinion and Order: In the Matter of the Commission’s Rules to Establish New Personal Communications Services (June 13, 1994).

[109] Each budget request for auctions during the Reagan administration was for nonbroadcast licenses only. Reagan Offers Final Budget Legacy, Broadcasting, January 16, 1989, at 96. As reported in 1992, ‘‘Realistically, Congress isn’t about to pass the kind of auction measure free-market purists would wish for. Most likely, established license holders would be exempted. And licenses for television and radio, because they involve programming issues, would continue to be awarded by hearings.’’ Mark Lewyn, The Case for Auctioning Off Airwaves, Bus. Wk., October 19, 1992, at 69. (It should be noted that there are also efficiency reasons for exempting established licensees from renewal auctions.)

[110] ‘‘OBRA-93 [the Omnibus Budget Reconciliation Act of 1993] also called on the FCC to ensure that certain categories of firms—rural telephone companies, small businesses, and firms owned by women and members of racial minority groups—would be able to win some of the licenses assigned by auction.’’ Congressional Budget Office, Where Do We Go from Here? The FCC Auctions and the Future of Radio Spectrum Management, at 7 (1997). See also Federal Communications Commission, The FCC Report to Congress on Spectrum Auctions, FCC 97-353 (October 9, 1997).

[111] Thomas W. Hazlett & Matthew L. Spitzer, Public Policy toward Cable Television: The Economics of Rate Controls (1997).

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

enthusiastic were broadcasters about these provisions that the National Association of Broadcasters financed a nationwide ad campaign urging citizens to pressure Congress to vote for the act.) After the measure passed, the FCC was charged with implementing its component parts, putting broadcasters in a compromised position in lobbying against auctions.[112]

Fourth, as auctions would capture license rents, as well as move tax revenues forward in time, they would produce deficit-reduction benefits. The public visibility of the deficit issue had gained considerable strength during and after the 1992 elections. Yet, pressure for more federal revenues is constant, and the budget deficit itself had been a high-profile national issue for at least a decade. One could reasonably ask why potential auction revenues carried a political premium in 1993 versus, say, 1990—when the ''historic'' budget deal was consummated. A fifth factor helps explain what changed in 1993—side payments to the Democratic leadership in Congress extended by the Clinton administration.

The sudden policy reversal demonstrated by several congressional leaders in 1993 was dramatic.[113] The ''ideological'' opposition to spectrum auc-

[112] Nick Allard details this very well: ''Previously, the historical opposition of broadcast interests and others to even the precedent of charging for broadcast use for some kinds of licenses would have been sufficient to derail each proposal. But the political dynamic changed rapidly. An explicit exemption in evolving auction proposals for nonsubscription broadcast licenses and also, perhaps, the ambitious efforts of the broadcast industry in pursuit of other priorities constrained the ability of broadcasters to effectively and openly oppose spectrum auctions.'' Allard, *supra* note 14, at 123. One footnote in the above passage refers to the 1992 Cable Act as the source of broadcaster preoccupation. Another cites the Congressional Budget Office's ''camel's nose inside the tent'' argument in the context of how nominally exempt broadcast licenses were put at risk (of losing their zero-price status) by auction precedents. Congressional Budget Office, *supra* note 5, at 21–22. One angry cable lobbyist even predicted this political crunch for broadcasters immediately after passage of the 1992 Cable Act: '' 'We suspect Congress will now extract its political price from the broadcast industry. Spectrum fees and free political broadcasting time are the likely first steps,' he said.'' Cable TV Franchising News Bull., October 6, 1992, at 2 (quoting Steve Effros, president of the cable trade group CATA).

[113] ''The date was September 25, 1991, and Rep. John D. Dingell was hopping mad. Senate Republicans had discovered a way to pay for an extension of unemployment benefits: auction off licenses for use of the radio spectrum rather than give them away.

''Dingell, D-Mich., who chairs the Energy and Commerce Committee, accused the Bush administration of making a money grab with little concern that only those with the deepest pockets would win rights to the airwaves.

''This is the same old, tried, hackneyed approach that my colleagues on the other side of the aisle have carried forward at the behest of a bunch of unthinking dunderheads in the Office of Management and Budget,'' Dingell thundered in a floor speech. The House later stripped the proposal. That was then. Now, Dingell and fellow Energy and Commerce Democrats are embracing spectrum auctions as a way to raise $7.2 billion over five years for President Clinton's budget'' (Mike Mills, Auction of Frequencies Sets Up a 21st Century Marketplace, Cong. Q., May 8, 1993, at 1137).

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

tions by Democratic lawmakers appeared to have vanished overnight.[114] Longtime auctions foe, House Telecommunications Subcommittee Chairman Edward Markey, quickly came to tout auctions as ''improving the licensing process while at the same time raising substantial revenues for the public.''[115]

The first four factors noted above would not likely have caused such an abrupt switch. One distinct 1993 difference was that Congress and the White House were both Democratic.[116] Still, a Democratic administration under President Jimmy Carter saw its requests for auction authority rebuffed by a Democratic Congress. Unlike its predecessors, however, the Clinton administration initially went to great lengths and incurred large political risks to defer to congressional decision makers.[117] So quiescent to congressional politics was Clinton in concocting his ill-fated 1993 ''stimulus package,'' for instance, that he was led—after the measure's demise—to the following reconsideration:

> Later, Clinton unleashed his fury. ''I'm never going to be so vulnerable again,'' he asserted. ''That bill had too much pork in it,'' he said. ''It was designed to ring the bell of every committee chairman.'' Rostenkowski wanted this, another chairman wanted that, and he had granted it instead of offering a real investment package.[118]

[114] The lack of ideological purity is symmetric across parties. The late Senator Barry Goldwater (R-Ariz.) fought tenaciously against the imposition of any system of fees for spectrum rights as the ranking Republican on the Senate Commerce Committee. In 1978 he strongly opposed Congressman Lionel Van Deerlin's proposal to deregulate broadcasters (eliminating content controls such as the fairness doctrine) while instituting a spectrum access charge, saying, ''I found it impossible to support a bill which included license fees based on the scarcity value of the radio frequency spectrum.'' Krasnow & Longley & Terry, *supra* note 47, at 255 (footnote omitted).

[115] House Panel Measure Would Allow Auction of Radio Waves, Wall St. J., May 7, 1993, at B4. See A Bill to Establish Procedures, *supra* note 97.

[116] ''Every year, congressional Democrats, who believed the airwaves were akin to the national parks, killed the [spectrum license auctions] idea. But now, a cash-strapped Clinton has proposed his own plan to sell off part of the radio spectrum, and this time Hill Democrats are behind him. The idea's toughest foe, House Energy & Commerce Committee Chairman John D. Dingell (D-MI), finds the notion far more palatable with a Democrat in the White House. Another long-time critic, House Telecommunications & Finance Subcommittee Chair Edward J. Markey (D-Mass.), has become a big booster. 'The government is losing out on much-needed revenue,' he says.'' Mark Lewyn, Airwaves for Sale: Contact Bill Clinton, Bus. Wk., May 10, 1993, at 37.

[117] See, for instance, Paul Gigot, Congress Sees Itself in Clinton—And Likes It, Wall St. J., April 2, 1993, op-ed page.

[118] Indeed, the president was initially so deferential to the Democratic leadership in Congress that some members of that leadership felt compelled to tell the president to be more

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

TABLE 6

FIVE POLITICAL FACTORS LESSENING OPPOSITION TO FCC LICENSE AUCTIONS IN 1993 BUDGET

Factor	Opposition Mitigated (OM) Support Encouraged (SE)	When Factor Obtained
Limiting auctions to non-broadcast licenses	OM: public and private beneficiaries of public trusteeship	Any time
Preferences for ''Designated Entities''	OM: congressional leadership SE: administration	Any time
1992 Cable Act changed broadcaster-cable rent-seeking margins	OM: Broadcasters indebted to, and dependent on, Congress/FCC for favorable regulation	October 5, 1992
Auction monies used for deficit reduction	OM: none SE: taxpayers, general public	Any time
White House highly deferential to congressional leadership	OM: congressional leadership	Spring 1993

This extreme degree of attentiveness to the special needs of committee chairs helps explain why the Clinton administration was able to obtain congressional cooperation for a policy reform so long sought by executive branch agencies. A summary of the reasons making FCC license auction authorization palatable to Congress in 1993 is summarized in Table 6.

C. Digital TV License ''Giveaway'' Survives Auction Reforms

The Telecommunications Act, enacted in February 1996, was hailed as a sweeping, comprehensive rewrite of the 1934 Communications Act. The legislation billed itself as a major policy shift away from regulation and in favor of market competition. In the months just before the measure was enacted, FCC license auctions had been introduced and were raising several billions in dollars for the U.S. Treasury—a fact highly touted by the Democratic administration. The Republican Senate Majority Leader announced his support for authorizing broadcast license auctions and declared he was taking the entire Telecommunications Act hostage until Congress followed his suggestion. After a decade-long allocation process, the commission's

assertive with the White House agenda (as opposed to Congress's). Bob Woodward, The Agenda 174 (1994).

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

rule making for Advanced Television (ATV)[119] was soon to award 1,500 extremely valuable licenses. Reform could not have been any timelier; clearly, the moment had arrived for policy makers to abandon the failed system of public trusteeship and sell the new TV licenses via competitive bidding.

But the moment passed. In the auctions era, federal policy makers addressed the broadcast license ''giveaway'' squarely—and resoundingly rejected policy reform.[120] It is difficult to view random error as any part of the decision to avoid auctions for broadcasters; the broadcasting sector was pointedly singled out for special treatment under the prevailing spectrum regulation regime. The Telecommunications Act specifically directed the FCC to charge broadcasters a fee if they were to deliver (as per FCC rules not then in effect) nonbroadcast telecommunications services, while simultaneously mandating that no charges could be levied on broadcasting operations.[121] The ''giveaway'' would continue—strictly limited to TV and radio service.

Yet the advent of FCC auctions for nonbroadcast services clearly appeared to have upped regulators' rent extraction (or, symmetrically, licensee cross-subsidy commitment). The fears of broadcasters and other public trusteeship advocates that the precedent established by competitive bidding would undermine the existing regulatory bargain were not entirely unfounded.[122] In the policy battle over ATV licenses, broadcasters were forced to explain to the ''deficit shiites'' and critics of ''corporate welfare''[123] why they should be given a privileged exemption when other FCC licensees

[119] Also known as digital television (DTV) or high-definition television (HDTV). The FCC had tentatively planned to assign every existing TV licensee one new license for ATV; the 1996 Telecommunications Act codified the incumbents' claim to receive the licenses without charge.

[120] A bill to auction TV licenses was offered by Senator John McCain (R-Ariz.) in October 1995 and fell by a vote of 64:25. Joel Brinkley, Defining Vision 360 (1997). Congressman Barney Frank (D-Mass.) offered similar legislation, which was defeated in the House 408:16, in July 1996. Heather Fleming, Dole Resurrects Digital TV Auction, Broadcasting & Cable August 19, 1996, at 25. Auctions for broadcast licenses were also opposed by the Clinton administration and the FCC. See Brinkley, Defining Vision, at 367–68, 377. See also Joel Brinkley, Congress Asks F.C.C. to Begin Lending Channels for Digital TV Broadcasts, N.Y. Times, June 24, 1996, at D6; Mark Landler, Capitol Hill Fiat on HDTV Isn't the Last Word, N.Y. Times, July 1, 1996, at D1.

[121] Telecommunications Act of 1996, Title II, § 336.

[122] Recall that the seemingly inexplicable preference for lotteries over auctions was driven by such a concern.

[123] As then-Senate Majority Leader Robert Dole (R-Kan.) dubbed it in floor debate. See Paul Farhi, Broadcast Executives Say Dole Vented Anger at Them, Wash. Post, January 12, 1996, at F8.

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

were paying for airwave access. That position stimulated widespread criticism in the popular press,[124] sparked political demands for increased content controls, and led directly to costly, rent-defending actions by broadcasters vying for between $12.5 billion and $70 billion in license rents.[125]

Broadcasting interests and policy makers engaged in protracted public bargaining over the ''public interest'' contribution TV stations would make in exchange for zero-priced licenses. The haggling iterated on three sets of obligations for licensees:[126] (1) requirements to air educational programming for children;[127] (2) free airtime to presidential candidates to address network viewers (a practice begun by the major networks during the 1996 presidential campaign);[128] (3) cooperation in constructing a violence ratings system compatible with ''v-chip'' technology, a parental TV monitor mandated in the 1996 Telecommunications Act.[129] As reported by the *Wall Street Journal:* ''Radio and TV stations traditionally have been allowed to

[124] Cohen, *supra* note 25; Mark Lewyn, The Great Airwave Robbery, Wired, March 1996, at 115; Mark Lewyn, GOP Giveaway, Wall St. J., September 12, 1995.

[125] Edmund L. Andrews, Digital TV, Dollars and Dissent, N.Y. Times, March 18, 1996, at D3. The impact of nonbroadcast auctions in intensifying rent extraction demands by regulators is interesting in light of the long history of blanket opposition to FCC auctions by congressional policy makers and ''public interest'' advocates. Three alternative explanations appear. Such beneficiaries of regulation (1) were mistaken about the effect of nonbroadcast auctions; (2) calculated that such short-term benefits were offset by the long-run risk of seeing auction reforms spread; (3) considered the enhanced public extractions motivated by the new regime an inferior substitute for more subtle extractions previously easier to obtain.

[126] The National Association of Broadcasters also warned, in a nationwide TV advertising campaign, that imposing the ''dangerous proposal'' of competitive bidding for licenses, ''could mean you'll end up either paying a lot more to watch your favorite shows, or worse still, see them disappear altogether. . . . Call toll free and tell Congress to vote against the TV Tax.''

[127] ''The insuperable power of 'family values' in an election year seems to have claimed another victory—or victim, depending on one's perspective. . . . [T]he Federal Communications Commission is on the verge of passing a regulation, over the broadcasters' strenuous First Amendment objections, that would force them to transmit three hours a week of educational programming for children.'' Lawrie Mifflin, Television: Compromise Seems Certain to Create Some More Program Regulation for Broadcasters, N.Y. Times, June 3, 1996, at D7. The standard was enacted. Lawrie Mifflin, Shift on Children's TV Programs Will Lead to 3-Hour Minimum, N.Y. Times, June 15, 1996, at 11.

[128] When Rupert Murdoch, the CEO of Fox Broadcasting, took the lead to make the first such offer, one newspaper endorsed the proposal while pointing to the underlying motivation: ''This isn't to suggest that Murdoch's offer is selfless. Because it's pro bono doesn't necessarily mean it's not intended to be pro-Murdoch. Along with the rest of the television industry, Fox is worried about a Senate proposal to make the networks pay for the extra channels they need to provide . . . digital television.'' Editorial, Free Air Time Can Level Election Playing Field, L. A. Times, February 29, 1996, at B8.

[129] In the March 4, 1996, issue of the trade journal Broadcasting & Cable, a cover story explained the v-chip deal worked out between regulators and the TV industry: ''The Elegant Surrender: Industry Capitulates on V-Chip without Firing a Shot.'' Christopher Stern, TV Makes History at the White House, Broadcasting & Cable, March 4, 1996, at 5.

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

use spectrum for free in part because they agree to broadcast 'in the public interest,' providing news, public-service announcements, and discounted political advertising. 'If you have to start paying for something, it changes responsibility,' said Phil Jones, president of Meredith Corp.'s broadcast group, which includes six TV stations. However, administration officials have grown increasingly skeptical about whether TV stations are living up to that responsibility, and politicians in both parties may use the threat of spectrum auctions to browbeat broadcasters over content issues.''[130]

But pledges for politically popular ''public interest'' commitments are not the only compensation for which policy makers may be dealing. An extraordinary report surfaced at just the moment that the Telecommunications Act ''had been stalled for several weeks after Senate Majority Leader Bob Dole (R-Kan.) complained about a giveaway of lucrative digital airwaves to broadcasters.''[131] According to the *Washington Post,* Dole was quoted by three broadcast network executives as saying to them in a closed-door meeting: ''Why should I give you a $40 billion giveaway when you're driving my (approval rating) numbers through the floor on Medicare?'' While the ''Senator denies linking licenses to coverage,'' the linkage was evident to the broadcasters—''Everyone took the comment (about news) very seriously,'' said one.[132]

D. Auctions Authorized for Broadcast Licenses in 1997

Only 18 months after the passage of the Telecommunications Act, Congress finally authorized the FCC to assign radio and television licenses via competitive bidding in the Balanced Budget Act of 1997.[133] No broadcast license auctions have been held yet, as a rule making by the FCC must be

[130] Daniel Pearl, Clinton Plan to Raise Nearly $5 Billion Faces Fight from TV Stations, Congress, Wall St. J., January 30, 1995, at A4.

[131] Warren Cohen, Racing into the Future, U.S. News & World Rep., February 12, 1996, at 49. The report goes on to note that Senator Dole only allowed the measure to pass when the FCC agreed not to issue any licenses to broadcasters before giving Congress a full year to legislate on the method of assignment. This policy was reversed by House Speaker Newt Gingrich and Senate Majority Leader Trent Lott within days after Dole left the Senate in June 1996.

[132] Farhi, *supra* note 123, at F8. This illustrates the dark side of the prediction made by Ronald Coase some years ago: ''If the choice between claimants is honestly made, it is inevitable that it should be made on the basis of programs promised and, when the time for renewal of the license arrives, on the basis of the programs actually broadcast.'' Coase, *supra* note 21, at 165.

[133] Balanced Budget Act of 1997, Pub. L. No. 105-33, 111 Stat. 251 (August 5, 1997). This reformed competitive bidding procedures as authorized under Sec. 309(j) of the Communications Act of 1934, 47 U.S.C. § 309(j).

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

completed before such assignments can take place.[134] While the reform may one day present an interesting challenge to existing First Amendment law teetering on the ''physical scarcity'' doctrine (specifically, that excess demand for licenses is eliminated by a price-rationing mechanism),[135] the nature and circumstances of the policy switch appear to fit the historical pattern outlined in the franchise rents theory.

First, while the reform ostensibly directs the FCC to hold auctions for radio and TV licenses, the overwhelming portion of broadcasting licenses (measured in economic value) are unaffected. That is because licenses for digital television are explicitly exempted from auctions,[136] as are all license renewals. Because virtually no new licenses are being authorized for radio and television service, the auction authority likely will apply only to applications for very marginal AM or FM radio stations or for translator and repeater service licenses, many of which have been pending for a number of years. The actual impact of the reform will be further muted by the fact that the legislation requires that pending license applications be sold only to existing applicants (who were given 180 days to settle their competing claims in the law).[137] In essence, broadcasting license auctions have been authorized such that they will not much matter.

Despite the ''horse out of the corral'' nature of this change in policy, its political circumstances are familiar. The reform was again attached to the budget bill rather than to telecommunications legislation. It was part of a historic compromise agreement between Congress and the White House wherein deficit elimination took center stage. This cooperation marked a departure from previous conflict between the two branches when controlled by different parties. The measure surely received impetus from previous auctions for nonbroadcast licenses, events that publicly demonstrated that FCC license rents could be captured by the Treasury. Most important, the small scope of the properties covered by the law and the fact that it was enacted only months after television broadcasters had been awarded digital TV licenses worth billions of dollars, mitigated opposition from interests supporting public trusteeship.

[134] See Federal Communications Commission, Notice of Proposed Rulemaking: In the Matter of Implementation of Section 309(j) of the Communications Act—Competitive Bidding for Commercial Broadcast and Instructional Television Fixed Service Licenses, MM Docket No. 97-234 (November 26, 1997).

[135] Indeed, new rationales to justify broadcast regulation are already being advanced. See Logan, *supra* note 73.

[136] See *infra,* Sec. VIIIC.

[137] See Federal Communications Commission, *supra* note 134.

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

IX. Conclusion

> Economists know what steps would improve the efficiency of HSE [health, safety, and environmental] regulation, and they have not been bashful advocates of them. These steps include substituting markets in property rights, such as emission rights, for command and control. . . . The real problem lies deeper than any lack of reform proposals or failure to press them. It is our inability to understand their lack of political appeal.[138]

The license ''giveaway'' has been studied by economists for decades. Repeatedly the conclusion has been reached that the system was not merely inefficient but illogical, error-prone, a mere accident of history. When calls for market-based reform met with objections by those who favored public trusteeship, economists characterized the asserted relation between license pricing and licensee performance as analytically unsophisticated.

While zero-priced licenses are theoretically unnecessary to accomplish the goals announced for public trusteeship, and while regulators have not in fact achieved the outcomes cited to justify the policy, economists have overlooked the positive sense in which the public trustee view of broadcast licensing is correct: there is a clear link between method of assignment and licensee performance.[139] Abandoning zero-priced awards in favor of auctions will predictably disconnect key incentive mechanisms on which political interests rely in executing politically optimal transfers. Public trusteeship—so ineffective in delivering advertised benefits—has successfully overcome important institutional constraints that raise barriers to explicit execution of the broadcast license bargain.

The franchise rents theory advanced here is consistent with recent work showing that competitive bidding was not, originally, the efficient rights assignment tool and fully accepts the presumption that auctions constitute welfare-maximizing policy in the postdiscovery era following 1927. From here it constructs an explanation of the system's stability, why reform eventually came, why lotteries were an interim solution, and why broadcast licenses have been exempted from market assignment. Actions that appear to constitute indifference to public funds are better seen as incentive payments

[138] Sam Peltzman, George Stigler's Contribution to the Economic Analysis of Regulation, 101 J. Pol. Econ. 818, 830 (October 1993).

[139] This discussion has been added in response to a perceptive review of my conference paper by Judge Stephen Williams. (As a discussant, he elected to give me the benefit of his (thoughtful) notes rather than to submit a formal comment.) In my previous draft, he was left with the impression that I had argued that ''the public trustee theory has proven false.'' I try to clarify that here.

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

motivating agent behavior where direct monitoring is difficult or illegal. The apparent ''squandering'' of rents is driven by the policy maker's ability to internalize gains while externalizing costs. As seen in other contexts, artificially creating excess demand can produce significant benefits for the manager who controls the queue.

It is entirely fitting that the original launch of the FCC license auction idea came from a law student influenced by leading work on market socialism. Surely Leo Herzel's microeconomic theory was correct: when a resource is de facto public property, as radio spectrum has been since the Radio Act of 1927, consumer welfare is maximized by a policy of simulating market outcomes. Government license auctions would be a step in this direction. Yet the very same agency problems that haunt the pursuit of efficiency in socialist economies generally and state-owned enterprises specifically block implementation of cost-reducing assignment rules. Where those arranging the ''auction'' face strong (and insufficiently countered) incentives to underprice, a stable political equilibrium may take hold that generates rents for broadcasters and policy makers, the key constituencies served by public trusteeship.

Bibliography

Alchian, Armen A., and Allen, William R. *University Economics.* Belmont, Calif.: Wadsworth Publishing Co., 1972.

Allard, Nicholas W. ''The New Spectrum Auction Law.'' *Seton Hall Legislative Journal* 18 (1994): 13–58.

Bazelon, David. ''FCC Regulation of the Telecommunications Press.'' *Duke Law Journal* 1975 (1975): 213–51.

Bazelon, David. ''The First Amendment and the 'New Media'—New Directions in Regulating Telecommunications.'' In *Free but Regulated: Conflicting Traditions in Media Law,* edited by Daniel L. Brenner and William L. Rivers, pp. 52–60. Ames: Iowa State University Press, 1982.

Becker Gary. ''A Theory of Competition among Pressure Groups for Political Influence.'' *Quarterly Journal of Economics* 98 (May 1983): 371–400.

Borenstein, Severin. ''On the Efficiency of Competitive Markets for Operating Licenses.'' *Quarterly Journal of Economics* 103 (May 1988): 357–85.

Brennan, Timothy J. ''Economics Efficiency and Broadcast Content Regulation.'' *Federal Communications Law Journal* 35 (Summer 1983): 117–38.

Brinkley, Joel. *Defining Vision: The Battle for the Future of Television.* New York: Harcourt Brace, 1997.

Calhoun, George. *Digital Cellular Radio.* Norwood, Mass.: Artech House, 1988.

Citizens Committee to Save WEFM v. FCC 506 F.2d 246 (1974).

Coase, R. H. ''The Federal Communications Commission.'' *Journal of Law and Economics* 2 (1959): 1–40.

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

Coase, Ronald H. ''Evaluation of Public Policy Relating to Radio and Television Broadcasting: Social and Economic Issues.'' *Land Economics* 41 (1965): 161–67.

Coase, R. H. ''Law and Economics at Chicago.'' *Journal of Law and Economics* 36 (April 1993): 239–54.

''Concepts of the Broadcast Media under the First Amendment: A Reevaluation and a Proposal.'' Note. *New York University Law Review* 47 (April 1972): 83–109.

Congressional Budget Office (CBO). *Auctioning Radio Spectrum Licenses.* Washington, D.C.: Congress of the United States, March 1992.

Congressional Budget Office (CBO). *Where Do We Go from Here? The FCC Auctions and the Future of Radio Spectrum Management.* Washington, D.C.: Congress of the United States, April 1997.

Corn-Revere, Robert. ''New Technology and the First Amendment: Breaking the Cycle of Repression.'' *Comm/Ent: Hastings Communications and Entertainment Law Journal* 17 (Fall 1994): 247–345.

Cox, Kenneth A., and Johnson, Nicholas. *Broadcasting in America and the FCC's License Renewal Process: An Oklahoma Case Study.* Washington, D.C.: Federal Communications Commission, 1968.

Davis, W. Jefferson. ''The Radio Act of 1927.'' *Virginia Law Review* 13 (1927): 611–18.

De Vany, Arthur S.; Eckert, Ross D.; Meyers, Charles J.; O'Hara, Donald J.; and Scott, Richard C. ''A Property System for Market Allocation of the Electromagnetic Spectrum: A Legal-Economic-Engineering Study.'' *Stanford Law Review* 21 (June 1969): 1499–561.

Dill, Clarence C. *Radio Law.* Washington, D.C.: National Law Book Co., 1938.

Donahue, Hugh Carter. *The Battle to Control Broadcast News: Who Owns the First Amendment?* Cambridge, Mass.: MIT Press, 1989.

Dyk, Timothy B. ''Full First Amendment Freedom for Broadcasters: The Industry as Eliza on the Ice and Congress as the Friendly Overseer.'' *Yale Journal on Regulation* 5 (Summer 1988): 299–329.

Emord, Jonathan. *Freedom, Technology, and the First Amendment.* San Francisco: Pacific Research Institute, 1991.

Federal Communications Commission (FCC). ''Inquiry and Proposed Rulemaking: Deregulation of Radio.'' *Federal Register* 44 (October 5, 1979): 57,636–723.

Federal Communications Commission (FCC). *New Television Networks: Entry, Jurisdiction, Ownership and Regulation.* Final Report of the Network Inquiry Special Staff. Vol. 1. Washington, D.C.: Federal Communications Commission, October 1980.

Federal Communications Commission (FCC). *Report on the Fairness Doctrine.* FCC 85-495. F.C.C. 2d 102, pp. 145–253 (1985).

Federal Communications Commission (FCC). *Memorandum Opinion and Order: In the Matter of the Commission's Rules to Establish New Personal Communications Services.* Gen. Docket No. 90-314. Washington, D.C.: Federal Communications Commission, June 13, 1994.

Federal Communications Commission (FCC). *The FCC Report to Congress on*

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

Spectrum Auctions. FCC 97-353. Washington, D.C.: Federal Communications Commission, October 9, 1997.

Federal Communications Commission (FCC). *Notice of Proposed Rulemaking: In the Matter of Implementation of Section 309(j) of the Communications Act—Competitive Bidding for Commercial Broadcast and Instructional Television Fixed Service Licenses.* MM Docket No. 97-234. Washington, D.C.: Federal Communications Commission, November 26, 1997.

Fowler, Mark S., and Brenner, Daniel L. ''A Marketplace Approach to Broadcast Regulation.'' *Texas Law Review* 60 (1982): 207–57.

Friendly, Fred. *The Good Guys, The Bad Guys, and The First Amendment.* New York: Random House, 1975.

Geller, Henry. ''Broadcasting and the Public Trustee Notion: A Failed Promise.'' *Harvard Journal of Law and Public Policy* 10 (Winter 1987): 87–90.

Geller, Henry. *Fiber Optics: An Opportunity for A New Policy?* Washington, D.C.: Annenberg Washington Program in Communications Policy Studies of Northwestern University, 1991.

Geller, Henry. *1995–2005: Regulatory Reform for Principal Electronic Media.* Washington, D.C.: Annenberg Washington Program in Communications Policy Studies of Northwestern University, 1994.

Goldberg, Victor. ''Regulation and Administered Contacts.'' *Bell Journal of Economics and Management Science* 7 (Autumn 1976): 426–48.

Hazlett, Thomas W. ''The Fairness Doctrine and the First Amendment.'' *Public Interest* 96 (Summer 1989): 103–16.

Hazlett, Thomas W. ''The Rationality of U.S. Regulation of the Broadcast Spectrum.'' *Journal of Law and Economics* 33 (April 1990): 133–75.

Hazlett, Thomas W. ''Physical Scarcity, Rent Seeking, and the First Amendment.'' *Columbia Law Review* 97 (May 1997): 905–44.

Hazlett, Thomas W., and Michaels, Robert J. ''The Cost of Rent-Seeking: Evidence from Cellular Telephone License Lotteries.'' *Southern Economic Journal* 59 (January 1993): 425–35.

Hazlett, Thomas W., and Sosa, David W. ''Was the Fairness Doctrine a 'Chilling Effect'? Evidence from the Postderegulation Radio Market.'' *Journal of Legal Studies* 26 (January 1997): 279–301.

Hazlett, Thomas W., and Spitzer, Matthew L. *Public Policy toward Cable Television: The Economics of Rate Controls.* Cambridge, Mass.: MIT Press, 1997.

Herzel, Leo. '' 'Public Interest' and the Market in Color Television Regulation.'' *University of Chicago Law Review* 18 (1951): 802–16.

Herzel, Leo. 1952. ''Rejoinder.'' *University of Chicago Law Review* 20 (1952): 106–7.

Jackson, Charles Lee. ''Technology for Spectrum Markets.'' Ph.D. dissertation. Cambridge, Mass.: MIT, Department of Electrical Engineering and Computer Science, 1976.

Kalman, Eva. *The Economics of Radio Frequency Allocation.* Paris: Organization for Economic Cooperation and Development, 1993.

Kalven, Harry, Jr. ''Broadcasting, Public Policy, and the First Amendment.'' *Journal of Law and Economics* 10 (1967): 15–49.

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

Klein, Benjamin; Crawford, Robert G.; and Alchian, Armen A. ''Vertical Integration, Appropriable Rents, and the Competitive Contracting Process.'' *Journal of Law and Economics* 21 (October 1978): 297–326.

Klein, Benjamin, and Leffler, Keith B. ''The Role of Market Forces in Assuring Contractual Performance.'' *Journal of Political Economy* 89 (August 1981): 615–41.

Klein, Benjamin, and Murphy, Kevin. ''Vertical Restraints as Contract Enforcement Mechanism.'' *Journal of Law and Economics* 31 (October 1988): 265–97.

Krasnow, Erwin G.; Longley, Lawrence D.; and Terry, Herbert A. *The Politics of Broadcast Regulation.* New York: St. Martin's Press, 1982.

Krattenmaker, Thomas G., and Powe, Lucas A., Jr. *Regulating Broadcast Programming.* Cambridge, Mass.: MIT Press, 1994.

Kriz, Margaret. ''Supervising Scarcity,'' *National Journal,* July 7, 1990, 1660–64.

Kwerel, Evan R., and Felker, Alex D. ''Using Auctions to Select FCC Licensees.'' Office of Plans and Policy (OPP) Working Paper No. 16. Washington, D.C.: Federal Communications Commission, 1985.

Kwerel, Evan R., and Williams, John R. ''Changing Channels: Voluntary Reallocation of UHF Television Spectrum.'' Office of Plans and Policy (OPP) Working Paper No. 27. Washington, D.C.: Federal Communications Commission, November 1992.

Lazear, Edwin P. ''Pensions and Deferred Benefits as Strategic Compensation.'' *Industrial Relations* 29 (Spring 1990): 263–80.

Levin, Harvey J. ''Regulatory Efficiency, Reform and the FCC.'' *Georgetown Law Journal* 50 (1961): 1–45.

Levin, Harvey J. ''Federal Control of Entry in the Broadcast Industry.'' *Journal of Law and Economics* 5 (October 1962): 49–67.

Levin, Harvey J. ''The Crisis in Electromagnetic Frequency Allocation: Abatement through Market Distribution.'' *Iowa Law Review* 53 (October 1967): 437–79.

Levin, Harvey J. ''The Radio Spectrum Resource.'' *Journal of Law and Economics* 11 (October 1968): 433–501.

Levin, Harvey J. *The Invisible Resource.* Baltimore: Johns Hopkins University Press, 1971.

Levin, Harvey J. ''Franchise Values, Merit Programming and Policy Options in Television Broadcasting.'' In *Regulating the Product: Quality and Variety,* edited by Richard E. Caves and Marc J. Roberts, pp. 221–47. Washington, D.C.: Brookings Institution, 1975.

Levin, Harvey J. *Fact and Fancy in Television Regulation.* New York: Russell Sage Foundation, 1980.

Lipsky, Abbott, Jr. ''Reconciling *Red Lion* and *Tornillo:* A Consistent Theory of Media Regulation.'' *Stanford Law Review* 28 (February 1976): 563–88.

Logan, Charles W. ''Getting beyond Scarcity: A New Paradigm for Assessing the Constitutionality of Broadcast Regulation.'' *California Law Review* 85 (December 1997): 1687–747.

Lueck, Dean. ''The Rule of First Possession and the Design of the Law.'' *Journal of Law and Economics* 38 (October 1995): 393–436.

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

Markey, Edward J. ''The Fairness Doctrine, Congress, and the FCC.'' *Communications Lawyer* 6 (Summer 1988): 1, 25–7.

Mayton, William T. ''The Illegitimacy of the Public Interest Standard at the FCC.'' *Emory Law Journal* 38 (1989): 715–69.

McChesney, Robert W. *Telecommunications, Mass Media, and Democracy.* New York: Oxford University Press, 1994.

McMillan, John. ''Selling Spectrum Rights.'' *Journal of Economic Perspectives* 8 (Summer 1994): 145–62.

Melody, William H. ''Radio Spectrum Allocation: Role of the Market.'' *American Economic Review* 70 (May 1980): 393–97.

Miami Herald Publishing Co. v. Pat L. Tornillo, Jr. 418 U.S. 241 (1974).

Minasian, Jora. ''Property Rights in Radiation: An Alternative Approach to Radio Frequency Allocation.'' *Journal of Law and Economics* 18 (1975): 221–72.

Minow, Newton N., and LaMay, Craig L. *Abandoned in the Wasteland.* New York: Hill & Wang, 1995.

National Broadcasting Company v. United States. 319 U.S. 190 (1943).

National Telecommunications and Information Administration (NTIA). *U.S. Spectrum Management Policy: An Agenda for the Future.* NTIA Publication 91-23. Washington, D.C.: Department of Commerce, February 1991.

Noll, Roger; Peck, M. J.; and McGowan, John J. *Economic Aspects of Television Regulation.* Washington, D.C.: Brookings Institution, 1973.

Orton, William. ''Unscrambling the Ether.'' *Atlantic Monthly* 147 (April 1931): 429–38.

Owen, Bruce M. ''Differing Media, Differing Treatment?'' In *Free but Regulated: Conflicting Traditions in Media Law,* edited by D. Brenner and W. Rivers, pp. 35–51. Ames: Iowa State University Press, 1982.

Owen, Bruce M.; Beebe, Jack H.; and Manning, William G., Jr. *Television Economics.* Lexington, Mass.: Lexington Books, 1974.

Peltzman, Sam. ''George Stigler's Contribution to the Economic Analysis of Regulation.'' *Journal of Political Economy* 101 (October 1993): 818–32.

Pool, Ithiel de Sola. *Technologies of Freedom.* Cambridge, Mass.: Harvard University Press, 1983.

Posner, Richard A. ''Taxation by Regulation.'' *Bell Journal of Economics and Management Science* 2 (Spring 1971): 22–50.

Powe, Lucas A., Jr. *American Broadcasting and the First Amendment.* Berkeley and Los Angeles: University of California Press, 1987.

Ray, William B. *FCC: The Ups and Downs of Radio-TV Regulation.* Ames: Iowa State University Press, 1990.

Red Lion Broadcasting Co. v. Federal Communications Commission. 395 U.S. 367 (1969).

Robinson, Glen O. Separate statement in *Children's Programming.* 31 Radio Reg. (P & F) 2d 1228 (1974).

Robinson, Ira E. ''A Fee System for Radio Licensing.'' Letter from the Chairman of the Federal Radio Commission Pursuant to Senate Resolution 351, December 9, 1929.

Robinson, John O. ''Spectrum Management Policy in the United States: An Histori-

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

cal Account.'' Office of Plans and Policy (OPP) Working Paper No. 15. Washington, D.C.: Federal Communications Commission, April 1985.
Rogers, Walter S. ''Air as Raw Material.'' *Annals of the American Academy* (March 1924): 251–55.
Rosen, Sherwin. ''Implicit Contracts: A Survey.'' *Journal of Economic Literature* 23 (September 1985): 1144–75.
Rubin, Paul H. ''The Theory of the Firm and the Structure of the Franchise Contract.'' *Journal of Law and Economics* 21 (April 1978): 223–33.
Schleifer, Andrei, and Vishny, Robert. ''Pervasive Shortages under Socialism.'' *Rand Journal of Economics* 23 (April 1992): 237–46.
Schorr, Daniel. *Clearing the Air.* Boston: Houghton Mifflin, 1977.
Smith, Hedrick. *The Power Game.* New York: Ballantine Books, 1988.
Smythe, Dallas W. ''Facing Facts about the Broadcasting Business.'' *University of Chicago Law Review* 20 (1952): 96–106.
Spitzer, Matthew L. ''Controlling the Content of Print and Broadcasting.'' *Southern California Law Review* 58 (1985): 1349–1405.
Spitzer, Matthew L. ''The Constitutionality of Licensing Broadcasters.'' *New York University Law Review* 64 (November 1989): 990–1071.
Stigler, George J. ''The Theory of Economic Regulation.'' *Bell Journal of Economics and Management Science* 2 (Spring 1971): 23–21.
Telser, Lester. ''Why Should Manufacturers Want Fair Trade?'' *Journal of Law and Economics* 3 (1960): 86–104.
Woodward, Bob. *The Agenda.* New York: Simon & Schuster, 1994.

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).

This content downloaded from 130.127.015.167 on February 20, 2018 06:52:19 AM
All use subject to University of Chicago Press Terms and Conditions (http://www.journals.uchicago.edu/t-and-c).