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

In the Matter of	)	
	)	
Implementation of Section 3	)	
of the Cable Television	)	
Consumer Protection and	)	
Competition Act of 1992	)	MM Docket No. 92-266
	)	
Statistical Report on	)	
Average Rates for Basic	)	
Service, Cable Programming	)	
Services, and Equipment	)	

REPORT ON CABLE INDUSTRY PRICES

Adopted: December 11, 1997 **Released: December 15, 1997**

By the Commission:

I. Introduction

1. Section 623(k) of the Communications Act of 1934, as amended ("Communications Act"),[1] which was added by the Cable Television Consumer Protection and Competition Act of 1992 ("1992 Cable Act"), requires the Commission to publish annually a statistical report on average rates for the delivery of basic cable service, other cable programming services, and equipment.[2] Specifically, Section 623(k) directs the Commission to compare prices charged by cable systems facing effective competition with those not facing effective competition.[3] This report, which is based upon the results of a survey of

[1]47 U.S.C. 521 *et seq.*

[2]Pub. L. No. 102-385, 106 Stat. 1460 (1992), § 623(k), 47 U.S.C. 534(k) (1992) ("1992 Cable Act"). The 1992 Cable Act amends Title VI of the Communications Act of 1934.

[3]Under the 1992 Cable Act, effective competition is defined to exist: (1) where the franchise area is served by at least two unaffiliated multichannel video programming distributors ("MVPDs"), each of which "offers comparable video programming" to at least 50% of households, and at least 15% of households subscribing to programming services offered by an MVPD subscribe to services other than those offered by the largest MVPD; (2) where "fewer than 30% of the households in the franchise area subscribe to the cable service of a cable system;" or (3) where a municipal cable system offers service to at least 50% of the households in the franchise area. Communications Act 623(l)(1)(A)(B)(C), 47 U.S.C. 543(l)(1)(A)(B)(C). The Telecommunications Act of 1996 added a fourth prong, finding that effective competition exists where a local exchange carrier or its affiliate (or any MVPD using the facilities of such carrier or its affiliate) offers video programming services (other than direct-to-home satellite services) in the franchise area of an unaffiliated cable operator, but only if the services so offered are comparable to the services provided by the cable operator. Communications Act 623(l)(1)(D), 47 U.S.C. 543(l)(1)(D). This new standard has been applicable since February 8, 1996.

cable industry prices (the "Survey"), is issued in compliance with that statutory requirement, and represents the fifth survey of cable rates conducted by the Commission since 1992.[4]

2. The information and analysis provided in this report is based upon the results of the Commission's 1997 survey of cable industry prices. On June 13, 1997, the Commission issued an order directing cable operators[5] serving community unit identification numbers ("CUIDs") selected for the sample to respond to Commission data requests (under Section 623(k) of the Communications Act) no later than August 1, 1997.[6] In general, the Survey requested data from the cable industry as of July 1, 1996 and July 1, 1997.[7] Cable operators also were asked to explain the reasons for any change in their rates between July 1, 1995 and 1996, and between July 1, 1996 and 1997, and indicate their regulatory status. After the data were collected, the Commission was able to supplement the Survey data with information about the respondents regulatory status. Thus, the Survey, in conjunction with this additional information permits the Commission to compare prices and channel capacity between regulated and unregulated cable operators as well as competitive and noncompetitive operators.[8]

II. Summary of Findings

3. Pursuant to the statutory requirement, the Survey gathered information on the prices

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[4]For the results of the four previous surveys, *see Second Order on Reconsideration, Fourth Report and Order, and Fifth Notice of Proposed Rulemaking*, MM Docket No. 92-266, FCC 93-177, 8 FCC Rcd 5361 ("*Benchmark Order*"), Appendix E (1993); Cable Services Bureau, Federal Communications Commission, *FCC Cable Regulation Impact Survey, Changes in Cable Television Rates Between April 5, 1993 - September 1, 1993* (February 22, 1994); Cable Services Bureau, Federal Communications Commission, *Report on the Cable Services Bureau's Survey on the Rate Impact of the Federal Communications Commission's Revised Rate Regulations* (July 14, 1994); and *Implementation of Section 3 of the Cable Television Consumer Protection and Competition Act of 1992 (Statistical Report on Average Rates for Basic Service, Cable Programming and Equipment)*, MM Dkt. No. 92-266, Report on Cable Industry Prices, 12 FCC Rcd 3239 (1997) ("*1995 Survey*").

[5]For purposes of this report, a company is considered to be an operator for each Community Unit Identification Number ("CUID") it serves. Thus, if a company serves 50 CUIDs that are included in the survey, that company will be referred to herein as 50 operators.

[6]*Order*, MM Docket No. 92-266, DA 97-1252, adopted June 13, 1997.

[7]The Survey also requested data as of July 1, 1995 for the monthly charge for the operator's typical subscriber, the number of subscribers receiving the typical service, and the number of channels received by the typical subscriber so that changes in rates between July 1, 1995 and 1996 could be explained.

[8]Regulated cable operators are those whose rates are regulated under the Commission's rules. Under these rules, local franchising authorities may become certified to regulate rates for the basic service tier, while the Commission regulates rates for the cable programming service tiers. Unregulated operators are operators that are not regulated because local regulatory authorities have not obtained certification to regulate rates pursuant to 47 C.F.R. § 76.910, and no complaint has been filed with the Commission concerning their cable programming services tiers. (The category of unregulated operators in this report excludes operators that are not regulated because they are subject to effective competition.) Although we report figures for regulated and unregulated operators, many reported differences between these operators are not statistically significant. Moreover, a noncompetitive unregulated operator may become regulated when it takes a rate increase and thus has an incentive to set rates within what our rules prescribe.

charged by two groups of cable operators: (1) the competitive group (made up of cable operators that meet the Communications Act's definition of effective competition); and (2) the noncompetitive group (made up of cable operators that do not face effective competition). Within the noncompetitive group, information was collected from regulated and unregulated operators. We report summary statistics for the sample in Attachment A. The major findings of the Survey are summarized below.

4. First, the average monthly charge for programming services and equipment rose for both the competitive and noncompetitive groups. The noncompetitive group charged higher average monthly rates than the competitive group in each of the three time periods studied.

5. Second, subscribers who purchase cable services from regulated operators pay less, on an average per channel basis, for programming services and equipment, than subscribers that purchase services from unregulated operators. Moreover, regulated operators offer more channels than unregulated operators on average, and the differences in the number of channels offered and per channel rates between regulated and unregulated operators are statistically significant.

6. Third, both competitive and noncompetitive operators attribute most of their rate increases to increases in inflation, programming costs, channel additions, and system upgrades. Competitive and unregulated operators also attribute significant portions of their rate increases to increases in equipment costs.

7. Fourth, both competitive and noncompetitive operators increased their average channel capacity, and had reductions in their average monthly rates per channel.

8. Finally, we find that for both competitive and noncompetitive operators, the package of services received by subscribers has changed over time. Both groups have increased their channel capacity and now offer subscribers additional satellite channels.

III. Survey Methodology

A. Sample

9. We used a stratified random sampling technique to collect information from two groups of cable operators. One group serves 192 communities where effective competition exists ("competitive group"), and the other group serves 466 communities where effective competition is absent ("noncompetitive group"). The noncompetitive group was further divided into three size strata. The size of each stratum was determined according to the proportion of systems in each size group across the whole industry.[9] The competitive group sample was drawn from two lists: a list of competitive CUIDs

[9]Warren Publishing, Inc., *Television and Cable Factbook*, Services Volume No. 65, 1997, at F-3, ("Warren Factbook"). Data as of October 1, 1996. We used the Warren Factbook data to create size strata. Warren reports that 46.7% of cable subscribers purchase services from a system with 50,000 or more subscribers, 33.6% of cable subscribers purchase services from a system with between 10,000 and 49,999 subscribers, and 19.7% of cable subscribers purchase cable services from a system with fewer than 10,000 subscribers. These three size categories were used to determine the three size strata for the sample, and the percentages were used as the relative weights for each strata, respectively, in calculating the averages for the noncompetitive group.

compiled from the 1993 cable rate survey,[10] and a list of operators serving CUIDs that the Commission subsequently has found to be subject to effective competition. The noncompetitive group was selected from among the operators serving the approximately 33,000 remaining CUIDs where effective competition has not been found. A total of 658 survey questionnaires were mailed to cable operators serving the selected CUIDs, and 590 completed questionnaires were returned to the Commission.

10. Of the 590 questionnaires returned to the Commission, 485 met minimum necessary data requirements.[11] The remaining 105 lacked sufficient information to be included in the Survey results. Completed surveys were received from 1.5% of the total universe of approximately 33,000 CUIDs. Operators serving these 485 CUIDs served 14.7 million subscribers, or approximately 24% of all cable subscribers.[12] Thus, the sample is sufficiently large to allow the Commission to draw meaningful statistical conclusions from the data.

11. Approximately 17%, or 83, of the 485 usable questionnaires belong to the competitive group.[13] As of July 1, 1997, operators serving these 83 CUIDs provided service to approximately 1.1 million subscribers, or 55% of the 2 million subscribers who purchase cable services from cable operators that meet the conditions for effective competition.[14]

12. As of July 1, 1997, 21 of the 83 respondents in the competitive group report that they face head-to-head (overbuild) competition in the geographic area they serve. Of these, 12 respondents report that they face competition from a local exchange carrier ("LEC"), or a LEC affiliate. The remaining 62 respondents meet the effective competition test either because they serve fewer than 30% of the households in their respective franchise areas (58 CUIDs) or because they face competition from a municipal provider (four CUIDs).

13. Approximately 49.5% (199) of the 402 noncompetitive group responses are from cable operators subject to rate regulation ("regulated group"). These respondents provide cable services to 9.4 million subscribers. The remaining 203 responses in the noncompetitive group are from cable operators not subject to rate regulation ("unregulated group"). These operators provide cable services to 4.2 million subscribers. Thus, as of July 1, 1997, the noncompetitive group consists of cable operators that provide

[10] *See Benchmark Order*, Appendix E.

[11] Only responses that included the average monthly charge, number of channels, and number of subscribers for all three survey dates were included in the analysis.

[12] As of October 1, 1996 there were 61,708,291 cable subscribers. Warren Factbook at F-3.

[13] A cable operator serving a specific CUID is categorized as competitive as of the date established by its application to the Commission for effective competition. The competitive sample consists of 83 CUIDs for 1997 and 63 and 65 CUIDs for 1995 and 1996, respectively.

[14] As of April 1993, the Commission found that effective competition existed in 243 CUIDs. Operators serving these CUIDs served 1.1 million subscribers. Subsequently, the Commission has found that cable operators serving an additional 880,000 subscribers meet the conditions of effective competition.

service to 13.6 million subscribers[15] or 23% of the 59.7 million cable subscribers that purchase services from operators that do not meet the conditions for effective competition.

B. Variables

14. For purposes of this report, six variables were selected to serve as the focus of the analysis. These variables are: programming services, equipment, average monthly rates, average number of channels received, average monthly rate per channel, and average monthly rate per satellite channel. A brief description of each variable follows.

15. Programming Services. This variable is the monthly price paid by subscribers for the basic service tier ("BST") and the most popular cable programming services tier ("CPST").[16] This excludes CPSTs that are New Product Tiers ("NPTs")[17] because their rates are subject to market-based regulation rather than traditional rate regulation. This variable is constructed for each CUID by summing the price charged for BST and CPST service.[18]

16. Equipment. This variable is the monthly charge paid by most subscribers for a converter and remote control unit. A converter may be addressable or nonaddressable. The equipment variable was constructed for each CUID by adding the price paid for a remote control unit and the type of converter purchased by the largest number of the CUID's subscribers.[19]

17. Average Monthly Rate. This variable is the sum of the programming services and equipment charges and represents the amount charged a typical subscriber for BST and CPST (other than NPTs) service and equipment. Fees for other cable services, such as premium, a la carte, and pay-per-view channels are not included in the Survey.

18. Average Number of Channels Received. This variable is the number of channels received

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[15]The noncompetitive group consists of 402 CUIDs for 1997 and 420 CUIDs for 1996. Eighteen of the CUIDs originally in the noncompetitive group met effective competition criteria between July 1, 1996 and July 1, 1997; thus, these 18 franchises were moved to the competitive group for 1997.

[16]The basic service tier is defined as the package of channels (or tier) that includes signals from local television broadcast stations (such as affiliates of the major networks, independent stations, and noncommercial stations) and public, educational, and governmental (PEG) channels. The cable programming services tier is defined as any package or tier of channels other than BST or programming offered separately as pay-per-channel programming or pay-per-program services. Some operators offer more than one CPST tier.

[17]A new product tier is a type of CPST made up of channels that generally were not offered by the cable system prior to October 1, 1994. To be considered an NPT, a CPST must meet the conditions set forth in Section 76.987 of the Commission's rules, 47 C.F.R. § 76.987.

[18]Fourteen of the 83 competitive CUIDs and 30 of the 402 noncompetitive CUIDs offer their subscribers only a single tier of service.

[19]We do not report separate figures for a converter and a remote control unit since a large proportion of the cable operators changed their accounting practice between 1996 and 1997 such that they no longer distinguish customers by their purchase of a particular type of converter or remote control unit.

by a typical subscriber on the BST and CPST (other than NPTs) as reported by the survey respondents. As with the monthly rate, channels devoted to premium, a la carte, and pay-per-view services are not included.

19. Average Monthly Rate Per Channel. This variable is calculated by dividing the average monthly rate by the average number of BST and CPST (other than NPTs) channels received, as reported by the survey respondents.

20. Average Monthly Rate Per Satellite Channel. This variable is calculated by dividing the average monthly rate by the average number of BST and CPST (other than NPTs) satellite channels received, as reported by the survey respondents.

21. Measures of value for cable services are not easily defined. Some have variously suggested the average number of channels received by subscribers, satellite channels received by subscribers,[20] and their respective per channel rates as measures of value. Alternatively, it has been suggested that an increase in the number of channels (satellite or otherwise) may not be similarly valued across all subscribers, or that additional channels have a declining marginal value. Because our survey was directed to cable operators, we did not specifically seek information on how consumers value individual channels within the BST and CPST package they receive, or how they would value these packages if given the option of receiving fewer channels than offered. We report on the average monthly rate per channel and the average monthly rate per satellite channel in order to compare rates across CUIDs and over time on a comparable basis.

C. Calculation of Averages for the Noncompetitive Group

22. To increase the precision of the estimates reported for the noncompetitive group, the reported averages for this group were calculated according to the following three steps.[21] First, each noncompetitive CUID was categorized into one of three size strata according to number of subscribers in the CUID's system. Second, an average for each of the six primary variables was calculated for each size strata. Third, an overall average for each primary variable was calculated for the noncompetitive sample by weighting the average for each strata by the proportion of similarly sized systems in the industry.[22]

[20]See, for example, Crandall, Robert W. and Harold Furchtgott-Roth, *Cable TV Regulation or Competition?*, 1996, at 127, and Rubinovitz, Robert N., *Market Power and Price Increases for Basic Cable Service Since Deregulation*, 1993, at 11.

[21]For an explanation of stratified sampling methodology, *see*, e.g., Mandel, B.J., *Statistics For Management*, 1984, at 259-260.

[22]See footnote 9. The reported percentages for these size categories are the weights used for the calculations for the noncompetitive group.

IV. Survey Results

A. Competitive and Noncompetitive Groups

23. As required by the Communications Act, the survey results are reported for two groups: competitive and noncompetitive.[23] The average monthly rates charged by the competitive and noncompetitive groups for programming services and equipment are shown in Table 1. As shown in Table 1, the differential between the competitive and noncompetitive groups was 6.8% in 1995 and 1996, and narrowed to 5.8% in 1997.

Table 1: Comparison of Competitive and Noncompetitive Groups Average Monthly Rates

Date	Competitive Group	Noncompetitive Group	$ Difference	% Difference
7/1/95	$22.88	$24.43	$1.55	6.8%.*
7/1/96	$24.88	$26.57	$1.69	6.8% *
7/1/97	$27.26	$28.83	$1.57	5.8% *

Source: 1997 Price Survey. Average rate is for BST, CPST, a remote, and a converter. An asterisk signifies a statistically significant difference between competitive and noncompetitive groups at 95% level of confidence. See Attachment D-2 for standard errors for the reported averages.

24. Rates charged by individual CUIDs are affected by factors other than competitive status. For example, size may be a factor that influences rates. In order to determine the extent to which size is an influencing factor, we have calculated the average monthly rate for each size strata for both the competitive and noncompetitive groups, and present the results of these calculations in Attachment D-1. Also shown in Attachment D-1, are the standard errors of the estimate which were calculated for each mean reported.[24]

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[23]Communications Act, 623 (k), 47 U.S.C. 543(k).

[24]The following is an explanation of the statistical concepts used in this report. Statistics is a way of estimating the characteristic of a population (such as the mean or average) by examining a randomly selected sample of the population. For example, we estimate the average equipment charge for the population of 33,000 CUIDs by examining the average equipment charge for our sample. Even though our sample is representative of the entire population of CUIDs, the average equipment charge for our sample does not exactly match the average equipment charge for the entire population. Rather, the average equipment charge for the population of 33,000 CUIDs will fall within a range of values around the estimated average equipment charge calculated from our sample. According to statistical theory, the average equipment charge for the population of 33,000 CUIDs is bounded by our sample's reported mean plus or minus 1.96 multiplied by the standard error of the mean for the sample. This will give us

(continued...)

25. In addition to a comparison of means by group and by size strata, we also estimated multiple regression equations for each year which allow us to compare the differences in average monthly rates between the competitive and noncompetitive groups controlling for size. The estimated regression coefficients are shown in Attachment E. The estimated regression coefficients for the size variables for all three years are significantly different from zero indicating that size is a factor that systematically influences rates. For comparison purposes, the regression results (which hold size constant) show the following percentage differences between the competitive and noncompetitive groups: 5.0% for 1995, 4.0% for 1996, and 4.7% for 1997. The differences between these percentages and those shown in Table 1 (which are based on means) are accounted for by the size variables.

26. Within the competitive group, there are four subcategories according to the four criteria under which a finding of effective competition can be made, as discussed in footnote 3 and paragraph 9 above. Attachment D-5 shows the average monthly rates, average number of channels, and average monthly rate per channel for each of the four subcategories of the competitive group.

27. Table 2, below, shows the average monthly rates for programming services and equipment for the competitive group. The average monthly rate rose by 8.7% between 1995 and 1996, and by 9.6% between 1996 and 1997.[25] The average number of channels received by subscribers increased from 38 in 1995 to 46.5 in 1997. As a result, the average monthly rate per channel rose by 4.5% between 1995 and 1996, and declined by 5.7% between 1996 and 1997. Also, the average monthly rate per satellite channel declined by 7.3% between 1996 and 1997. We note that the increases in average monthly rates between 1995 and 1996 and between 1996 and 1997, and the increase in the average number of channels in 1997, are statistically significant. However, the changes in average prices for the programming services and equipment subcategories are not statistically significant.[26]

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[24](...continued)
a 95% confidence level, which means that the mean for the entire population of 33,000 CUIDs will fall within this range 95% of the time. Using this method, we estimate that the average monthly equipment charge for the population of 33,000 CUIDs lies between $2.63 and $2.83 with a 95% confidence level. We arrive at $2.63 by subtracting 1.96 times $0.05 from $2.73, and we arrive at $2.83 by adding 1.96 times $0.05 to $2.73. See Attachment D-2 for the standard error for each estimated mean. *See* Kmenta, J., *Elements of Econometrics*, at 70-153, for a more complete discussion of statistical theory. ("Kmenta"),

[25]The prices reported in this document have not been adjusted for inflation and therefore are in nominal dollars.

[26]To determine whether a change over time is statistically significant, we apply the "z test" to examine whether the difference between the estimated means for the two time periods is statistically different from zero. *See* Kmenta at 136-137 for a more complete explanation of the "z test."

Table 2: Competitive Group					
Service Element	**7/1/95 (A)**	**7/1/96 (B)**	**% Change A & B**	**7/1/97 (C)**	**% Change B & C**
Average Monthly Rate	$22.88	$24.88	8.7%*	$27.26	9.6%.*
Programming Services	n/a	$23.32	-	$25.29	8.4%
Equipment	n/a	$1.56	-	$1.97	7.0%
Channels	38	39.6	4.2%	46.5	17.4%*
Average Monthly Rate Per Channel	$0.67	$0.70	4.5%	$0.66	-5.7%
Average Monthly Rate Per Satellite Channel	n/a	$1.09	-	$1.01	-7.3%
Source: 1997 Price Survey. Average rate is for BST, CPST, a remote and a converter. An asterisk signifies a statistically significant change over time. See Attachment D-2 for standard errors for the reported averages.					

28. Table 3, below, reports results for the noncompetitive group. The average monthly rate for the noncompetitive group increased by 8.8% between 1995 and 1996, and 8.5% between 1996 and 1997. These increases for average monthly rates are statistically significant.[27] The package of services received by subscribers has not been static over this period. Subscribers received 44 channels, on average, in July 1995, and paid $24.43 per month for those channels, or $0.60 per channel. In July 1997, subscribers received 49.4 channels, an increase of 5.4 channels over July 1995, and paid $28.83 per month, or $0.63 per channel. Thus, on a per channel basis, the average monthly rate increased by 5.0% between 1995 and 1997, or, as shown in Table 3, by 1.7% between 1995 and 1996, and by 3.3% between 1996 and 1997. Also, the average monthly rate per satellite channel increased by 2.1% between 1996 and 1997.

[27]Using the method described in footnote 24, the average monthly rate for all noncompetitive CUIDs as of July 1, 1997, lies between $28.46 and $29.20 with a 95% confidence level. See Attachment D-2 for the standard error of each estimated mean.

Table 3: Noncompetitive Group					
Service Element	**7/1/95 (A)**	**7/1/96 (B)**	**% Change A & B**	**7/1/97 (C)**	**% Change B & C**
Average Monthly Rate	$24.43	$26.57	8.8%*	$28.83	8.5%*
Programming Services	n/a	$24.28	-	$26.31	8.4%*
Equipment	n/a	$2.29	-	$ 2.52	10.0%*
Channels	44	47	6.8%*	49.4	5.1%*
Average Monthly Rate Per Channel	$0.60	$0.61	1.7%	$0.63	3.3%
Average Monthly Rate Per Satellite Channel	n/a	$0.95	-	$0.97	2.1%

Source: 1997 Price Survey. Average rate is for BST, CPST, a remote and a converter. An asterisk signifies a statistically significant change over time. See Attachment D-2 for standard errors for the reported averages.

29. Charts 1 through 2a, attached, show average monthly rate, average monthly rate per channel, and average monthly rate per satellite channel for the competitive and noncompetitive groups for the period from 1995 to 1997. While Chart 1 indicates that average monthly rates charged by both the competitive and noncompetitive groups increased between July 1, 1995 and July 1, 1997, Chart 2 and Chart 2a show that the average monthly rate per channel and average monthly rate per satellite channel for both groups were relatively more stable.

30. This year's Survey also asked respondents to explain changes in rates between July 1, 1995 and July 1, 1996, and between July 1, 1996 and July 1, 1997. We find that both competitive and noncompetitive respondents attribute most of their rate increases to inflation, increases in programming costs, channel additions, and system upgrades. Between 1996 and 1997, operators in the competitive group attribute an average of 24% of their rate increases to inflation and an average of 33% to higher programming costs. Operators in the noncompetitive group attribute an average of 34% of their rate increases to inflation and an average of 29% to higher programming costs, over the same time period. Table 4, below, summarizes the results for the competitive and noncompetitive groups, as do Charts 3 through 6, attached.

Table 4: Explanation of Changes in Rates				
	Competitive Group		Noncompetitive Group	
	1995-1996	1996-1997	1995-1996	1996-1997
Inflation	38%	24%	35%	34%
Programming Costs	33%	33%	37%	29%
Channel Additions	10%	10%	12%	13%
System Upgrades	6%	16%	7%	11%
Equipment	7%	11%	5%	8%
Other	6%	6%	4%	5%
Total	100%	100%	100%	100%

Source: 1997 Price Survey. Programming Costs include copyright fees. This table is based on responses received from operators serving 360 CUIDs (307 noncompetitive and 53 competitive.)

31. The Survey also requested detailed information about each operator's channel lineup. Attachments C-1 and C-2 show how the competitive and noncompetitive groups changed their channel lineups during the survey period. Both the competitive and noncompetitive groups increased their average channel capacity during this period and, for the most part, used that increased capacity to offer additional satellite channels on their CPSTs.[28] The competitive group offered 38 channels, on average, in 1995, and increased to 46.5 channels in 1997, an increase of 8.5 channels over this two year period. The noncompetitive group offered 44 channels in 1995, and increased to 49.4 channels in 1997, an increase of 5.4 channels, on average, over the same period. These changes in the number of channels offered are statistically significant.

[28] *See* Attachment C-2.

B. Regulated and Unregulated Groups

32. As noted above, the Survey included questions intended to identify the respondent's regulatory status. Tables 5 and 6, respectively, report results for the regulated and unregulated groups.

Table 5: Regulated Group

Service Element	7/1/95 (A)	7/1/96 (B)	% Change A & B	7/1/97 (C)	% Change B & C
Average Monthly Rate	$24.35	$26.63	9.4%*	$28.80	8.1%*
Programming Services	n/a	$24.40	-	$26.45	8.4%*
Equipment	n/a	$2.23	-	$2.36	5.8%
Channels	45.1	48.8	8.2%*	51.2	4.9%*
Average Monthly Rate Per Channel	$0.57	$0.58	1.8%	$0.60	3.4%
Average Monthly Rate Per Satellite Channel	n/a	$0.94	-	$0.97	3.2%

Source: 1997 Price Survey. Average rate is for BST, CPST, a remote and a converter. An asterisk signifies a statistically significant change over time. See Attachment D-3 for standard errors for the reported averages.

33. As shown in Table 5, above, and Table 6, below, the average monthly rates for both the regulated and unregulated groups increased over the past three years. Between 1995 and 1996, the average monthly rate for the regulated and unregulated groups increased by 9.4% and 9.2%, respectively. Between 1996 and 1997, the average monthly rate rose by 8.1% for the regulated group and by 8.4% for the unregulated group.

Table 6: Unregulated Group

Service Element	7/1/95 (A)	7/1/96 (B)	% Change A & B	7/1/97 (C)	% Change B & C
Average Monthly Rate	$24.21	$26.44	9.2%*	$28.67	8.4%*
Programming Services	n/a	$24.12	-	$26.06	8.0%*
Equipment	n/a	$2.30	-	$ 2.61	13.5%*
Channels	43.3	45.6	5.3%*	47.8	4.8%*
Average Monthly Rate Per Channel	$0.61	$0.63	3.3%	$0.65	3.2%
Average Monthly Rate Per Satellite Channel	n/a	$0.95	-	$0.98	3.2%

Source: 1997 Price Survey. Average rate is for BST, CPST, a remote and a converter. An asterisk signifies a statistically significant change over time. See Attachment D-3 for standard errors for the reported averages.

34. Our data indicate no statistically significant difference in the average monthly rate charged by regulated and unregulated operators. The regulated group, however, offers their subscribers more channels (the difference is statistically significant in 1996 and 1997) and charges less on a per channel

basis (the difference is statistically significant in 1995, 1996, and 1997) than the unregulated group. In addition, the regulated group consistently charges less for equipment than the unregulated group. For 1996 and 1997, the regulated group charged $2.23 and $2.36, respectively, per month for equipment, while the unregulated group charged $2.30 and $2.61. These differences were found to be statistically significant. Thus, we can conclude that subscribers that purchase cable services from regulated operators typically pay less, on a per channel basis, for programming services and less for equipment than subscribers that purchase cable services from unregulated operators.

35. Charts 7 through 8a, attached, show how the average monthly rate, the average monthly rate per channel, and average monthly rate per satellite channel for the regulated and unregulated groups have changed since 1995. Although Chart 7 shows that the average monthly rate charged by the regulated and unregulated groups have increased over time, Charts 8 and 8a show that on a per channel basis the average monthly rate charged by both groups has been relatively more stable over this time period.

36. Table 7, below, summarizes the explanation for changes in rates for the regulated and unregulated groups. Both the regulated and unregulated groups attribute most of their rate increases to inflation, increases in programming costs, channel additions, and system upgrades. For the unregulated group, increases in equipment are also significant. For the year ending in July 1997, the regulated group attributes 41% of their rate increase to inflation and 28% of their rate increase to higher programming costs. The unregulated group attributes 29% to inflation and 33% to higher programming costs for the same time period.

Table 7: Explanation for Changes in Rates

	Regulated Group		Unregulated Group	
	1995-1996	1996-1997	1995-1996	1996-1997
Inflation	37%	41%	33%	29%
Programming and License Fees	33%	28%	40%	33%
Channel Additions	14%	13%	10%	13%
System Upgrades	7%	10%	6%	11%
Equipment	3%	3%	9%	11%
Other	6%	5%	2%	3%
Total	100%	100%	100%	100%

Source: 1997 Price Survey. Programming and License fees includes copyright fees. Also see Charts 9 through 12 for a graphical presentation of these data.

C. Comparison by System Size

37. Table 8, below, shows the average monthly rate charged by each of the three size strata which were calculated for the competitive group.[29] As shown in the table, smaller systems typically charge less, and their rates have increased less rapidly, than larger systems.

Table 8: Comparison of Average Monthly Rate by Size Strata
Competitive Group

Size Strata	7/1/95 (A)	7/1/96 (B)	% Change A & B	7/1/97 (C)	% Change B & C
Large Systems	$24.64	$27.04	9.7%	$28.67	6.02%
Medium-Size Systems	$24.00	$26.00	8.3%	$28.93	11.3%
Small Systems	$21.48	$23.21	8.1%	$24.36	5.0%

Source: 1997 Price Survey. Large systems are those with 50,000 or more subscribers, medium-sized systems are those between 10,000 and 49,999 subscribers, and small systems are those with fewer than 10,000 subscribers. Note, this is not the legal definition for small systems. Average rate is for BST, CPST, a remote and a converter. An asterisk signifies a statistically significant change over time. See Attachment D-1 for standard errors for the reported averages.

38. Table 9, below, shows the average monthly rate charged by each of the three size strata which were calculated for the noncompetitive group. As shown in the table, smaller systems typically charge less, and their rates have increased less rapidly, than larger systems. However, it also should be noted that smaller systems typically offer fewer channels than larger systems. Thus, larger systems typically charge less on a per channel basis than smaller systems. The average number of channels offered and the average rate per channel for each size stratum are shown in Attachment D-4.

Table 9: Comparison of Average Monthly Rate by Size Strata
Noncompetitive Group

Size Strata	7/1/95 (A)	7/1/96 (B)	% Change A & B	7/1/97 (C)	% Change B and C
Large Systems	$25.29	$27.61	9.2%*	$30.19	9.3%*
Medium-Size Systems	$24.60	$26.81	9.0%*	$28.94	7.9%*
Small Systems	$22.23	$23.86	7.3%*	$25.56	7.1%*

Source: 1997 Price Survey. Large systems are those with 50,000 or more subscribers, medium-sized systems are those between 10,000 and 49,999 subscribers, and small systems are those with fewer than 10,000 subscribers. Note, this is not the legal definition for small systems. Average rate is for BST, CPST, a remote and a converter. An asterisk signifies a statistically significant change over time. See Attachment D-1 for standard errors for the reported averages.

[29] See footnote 9 for an explanation of the three size strata.

V. Conclusion

39. We draw the following conclusions from this Survey. The results indicate that prices rose for both the competitive and noncompetitive groups. The noncompetitive group charged higher prices than the competitive group for each of the three time periods studied. The percentage differential between competitive and noncompetitive narrowed between 1996 and 1997.

40. On a statistical basis, our analysis indicates that the prices charged by the regulated group are not significantly different from the prices charged by the unregulated group. Both groups attribute their rate increases primarily to inflation, higher programming costs, channel additions, and system upgrades. Additionally, competitive and unregulated groups also attribute a significant portion of their rate increases to equipment cost increases.

41. Both the competitive and noncompetitive groups offered subscribers more channels, and had corresponding reductions in average monthly rates per channel. Regulated operators, on average, offer more channels than unregulated operators, and subscribers of regulated operators pay significantly less on a per channel basis than subscribers purchasing services from unregulated operators. Also, regulated operators charge less, on average, for equipment than unregulated operators.

42. Finally, we find that both the competitive and noncompetitive groups have mostly used their increased channel capacity to offer additional satellite channels on their CPSTs.

VI. ADMINISTRATIVE MATTERS

43. It is ORDERED that this Report is issued pursuant to authority contained in Section 623(k) of the Communications Act of 1934, as amended, 47 U.S.C. 534(k).

FEDERAL COMMUNICATIONS COMMISSION

Magalie Roman Salas

Magalie Roman Salas
Secretary

Attachment A: Descriptive Statistics for CUIDs Used in the Statistical Analysis

		1995		1996		1997	
		Respondents	Subscribers	Respondents	Subscribers	Respondents	Subscribers
Competitive Group	Small	31	18,447	31	19,293	29	18,137
	Medium	20	44,273	21	47,601	32	104,865
	Large	12	598,895	13	633,043	22	953,486
	Total	**63**	**643,165**	**65**	**699,937**	**83**	**1,076,488**
Unregulated Group	Small	35	24,544	35	25,778	35	26,279
	Medium	91	1,335,696	90	1,353626	89	1,303,747
	Large	75	2,683,609	75	2,737,927	79	2,869,625
	Total	**201**	**4,044,849**	**200**	**4,117,337**	**203**	**4,199,651**
Regulated Group	Small	15	31,179	15	31,576	15	31,680
	Medium	59	823,069	59	852,078	49	802,962
	Large	147	8,694,423	146	8,892,609	135	8,606,152
	Total	**221**	**9,548,671**	**220**	**9,776,263**	199	**9,440,794**
Noncompetitive Total		**422**	**13,593,520**	**420**	**13,893,600**	**402**	**13,640,445**
Sample Grand Total		**485**	**14,236,685**	**485**	**14,593,537**	**485**	**14,716,933**

Source: 1997 Price Survey. Survey responses were included in the analysis if the respondent provided data for the components of rates (e.g. equipment and programming), channel capacity, and subscribers.
Note: A CUID associated with a system with fewer than 10,000 subscribers is categorized as small, a CUID associated with a system with 10,000 to 49,999 subscribers is categorized as medium, and a CUID associated with a system with more than 49,999 subscribers is categorized as large.

Attachment B: Average Charge For Other Services				
	Competitive		Non-competitive	
	1996	1997	1996	1997
Installation	$29.61 (2.34)	$39.56 (1.72)	$33.47 (0.82)	$39.59 (0.80)
Disconnection	$5.72 (3.05)	$4.69 (2.52)	$0.95 (0.38)	$0.90 (0.36)
Reconnection	$19.06 (1.68)	$23.45 (0.82)	$18.76 (0.55)	$22.70 (0.47)
Tier Change	$12.63 (2.28)	$10.85 (2.31)	$6.19 (0.52)	$6.50 (0.51)
Source: 1997 Price Survey. Standard error of the estimate is reported in parenthesis.				

Attachment C-1 : Operators That Changed The Number of Active Channels Between 1996 and 1997					
	Total Sample	Competitive	Noncompetitive	Regulated	Unregulated
No Change	**154**	28	126	51	75
Reduced Channel Capacity Between 1 and 10 Channels	**10**	1	9	2	7
Increased Channel Capacity Between 1 and 5 Channels	**251**	36	215	119	96
Increased Channel Capacity Between 6 and 7 Channels	**25**	2	23	10	13
Increased channel Capacity Between 8 and 10 Channels	**24**	9	15	9	6
Increased Channel Capacity Between 11 and 15 Channels	**7**	1	6	4	2
Increased Channel Capacity Between 16 and 30 Channels	**9**	4	5	1	4
Increased Channel Capacity Between 31 and 50 Channels	**5**	2	3	3	0
Total	**485**	83	402	199	203

Attachment C-2 : How Respondents Changed Their Active Channels Between 1996 and 1997

		Competitive		Noncompetitive	
		Respondents	Average	Respondents	Average
Broadcasting Channel Capacity	**Increased**	13	1.2	67	1.3
	Decreased	13	-2.5	44	-1.6
Public Access Channel Capacity	**Increased**	10	1.2	31	1.2
	Decreased	8	-1.1	35	-1.3
Educational Channel Capacity	**Increased**	7	1.1	11	1.4
	Decreased	1	-1.0	7	-1.1
Government Channel Capacity	**Increased**	5	1.2	11	1.2
	Decreased	0	n/a	9	-1.0
Basic Satellite Channel Capacity	**Increased**	23	1.2	106	2.5
	Decreased	14	-6.6	47	-2.8
CPST-1 Channel Capacity	**Increased**	36	8.5	209	4.3
	Decreased	2	-3.0	24	-6.3
CPST-2 Channel Capacity	**Increased**	10	1.0	20	3.1
	Decreased	1	-1.0	0	NA
Average Change in Channel Capacity		4.27* (0.88)		2.54* (0.22)	

Source: 1997 Price Survey. This table shows the number of respondents that changed channel capacity. As of July, there are 83 competitive CUIDs and 402 noncompetitive CUIDs. An asterisk signifies a statistically significant increase in average channel capacity. Standard error of the estimate is reported in parenthesis.

Attachment D-1: Comparison of Competitive and Noncompetitive Groups By Size Strata Average Monthly Rates				
Size	**Competitive Group**	**Noncompetitive Group**	**$ Difference between Means**	**% Difference between Means**
1997				
Large	$28.67 (0.68)	$30.19 (0.26)	$1.52	5.3%
Medium	$28.93 (0.82)	$28.94 (0.25)	$0.01	0.03%
Small	$24.36 (0.93)	$25.56 (0.64)	$1.20	4.9%
1996				
Large	$27.04 (0.79)	$27.61 (0.58)	$0.57	2.1%
Medium	$26.00 (0.89)	$26.81 (0.24)	$0.81	3.1%
Small	$23.21 (0.80)	$23.86 (0.56)	$$0.65	2.8%
1995				
Large	$24.64 (0.81)	$25.29 (0.57)	$0.65	2.6%
Medium	$24.00 (0.81)	$24.60 (0.22)	$0.60	2.5%
Small	$21.48 (0.80)	$22.23 (0.60)	$0.75	3.5%

Source: 1997 Price Survey. Average rate is for BST, CPST, a remote and a converter. An asterisk signifies a statistically significant change over time. Standard error of the estimate is reported in parenthesis. An asterisk signifies a statistically significant difference between competitive and noncompetitive groups at 95% level of confidence.

Attachment D -2 : Comparison of Competitive and Noncompetitive Groups

Year	Competitive Group	Noncompetitive Group	$ Difference between Means	% Difference between Means
Average Monthly Rate				
1997	$27.26 (0.54)	$28.83 (0.19)	$1.55	5.8%*
1996	$24.88 (0.53)	$26.57 (0.18)	$1.69	6.8%*
1995	$22.88 (0.52)	$24.43 (0.18)	$1.55	6.8%*
Average Number of Channels				
1997	46.5 (1.8)	49.4 (0.6)	2.9	6.2%
1996	39.6 (1.7)	47 (0.6)	7.4	18.7%*
1995	38 (1.6)	44 (0.6)	6	15.8%*
Average Monthly Charge Per Channel				
1997	$0.66 (0.03)	$0.63 (0.01)	-$0.03	-4.6%
1996	$0.70 (0.04)	$0.61 (0.01)	-$0.09	-12.9%*
1995	$0.67 (0.04)	$0.60 (0.01)	-$0.07	-10.4%*
Average Monthly Charge Per Satellite Channel				
1997	$1.09 (0.08)	$0.97 (0.0004)	-$0.12	-11.0%
1996	$1.01 (0.06)	$0.95 (.0008)	-$0.06	-5.9%
Programming Services				
1997	$25.29 (0.45)	$26.31 (0.24)	$1.02	4.0%*
1996	$23.32 (0.47)	$24.28 (0.22)	$0.96	4.1%
Equipment Charges				
1997	$1.97 (0.16)	$2.52 (0.05)	$0.55	27.9%*
1996	$1.56 (0.19)	$2.29 (0.05)	$0.73	4.7%*

Source: 1997 Price Survey. Noncompetitive CUIDs can be regulated or unregulated. The average monthly rate is for BST, CPST, a remote, and a converter. Programming services and equipment charges were not requested for 1995. Standard error of the estimate is reported in parenthesis. An asterisk signifies a statistically significant difference between the competitive and noncompetitive groups at 95% level of confidence.

Attachment D -3: Comparison of Regulated and Unregulated Groups

Year	Regulated Group	Unregulated Group	$ Difference between Means	% Difference between Means
Average Monthly Rate				
1997	$28.80 (0.26)	$28.67 (0.25)	-$0.13	-0.5%
1996	$26.63 (0.26)	$26.44 (0.23)	-$0.19	-0.71%
1995	$24.35 (0.25)	$24.21 (0.22)	-$0.14	-0.57%
Average Number of Channels				
1997	51.2 (0.93)	47.8 (0.92)	-3.4	-6.6%*
1996	48.8 (0.88)	45.6 (0.82)	-3.2	-6.6%*
1995	45.1 (0.89)	43.3 (0.75)	-1.8	-4.0%
Average Monthly Charge Per Channel				
1997	$0.60 (0.01)	$0.65 (0.01)	$0.05	8.3%*
1996	$0.58 (0.01)	$0.63 (0.01)	$0.05	8.6%*
1995	$0.57 (0.01)	$0.61 (0.01)	$0.04	7.01%*
Average Monthly Charge Per Satellite Channel				
1997	$0.97 (0.03)	$0.98 (0.001)	$0.01	1.03%
1996	$0.94 (0.04)	$0.95 (0.001)	$0.01	1.06%
Programming Services				
1997	$26.45 (0.28)	$26.06 (0.28)	-$0.39	-1.5%
1996	$24.40 (0.26)	$24.12 (0.32)	-$0.28	-1.14%
Equipment Charges				
1997	$2.36 (0.10)	$2.61 (0.07)	$0.25	10.59%*
1996	$2.23 (0.09)	$2.30 (0.07)	$0.07	3.13%

Source: 1997 Price Survey. Noncompetitive operators can be regulated or unregulated. The average monthly rate is for BST, CPST, a remote, and a converter. Programming services and equipment charges were not requested for 1995. Standard error of the estimate is reported in parenthesis. An asterisk signifies a statistically significant difference between regulated and unregulated groups at 95% level of confidence.

Attachment D -4 : Comparison by Size Strata

Year	Large Systems	Medium-Size Systems	Small Systems
Average Monthly Rate			
1997	$30.19 (0.26)	$28.94 (0.25)	$25.56 (.64)
1996	$27.61 (0.58)	$26.81 (.24)	$23.86 (.56)
1995	$25.29 (0.57)	$24.60 (.22)	$22.23 (.60)
Average Number of Channels			
1997	55.2 (0.84)	49.0 (.97)	36.6 (1.88)
1996	52.2 (1.8)	47.7 (.91)	33.6 (1.69)
1995	49.1 (1.6)	44.2	32.0
Average Monthly Charge Per Channel			
1997	$0.57 (0.01)	$0.62 (.01)	$0.78 (.03)
1996	$0.55 (0.01)	$0.59 (.01)	$0.79 (.04)
1995	$0.54 (0.01)	$0.58 (0.01)	$0.78 (0.04)
Average Monthly Rate Per Satellite Channel			
1997	$0.85 (0.01)	$1.03 (0.07)	$1.17 (0.07)
1996	$0.84 (0.01)	$0.94 (0.04)	$1.22 (0.07)
Programming Services			
1997	$27.42 (0.24)	$26.17 (.22)	$24.03 (.56)
1996	$25.07 (0.71)	$24.32 (.22)	$22.44 (.47)
Equipment Charges			
1997	$2.77 (0.08)	$2.77 (.08)	$1.53 (.20)
1996	$2.53 (0.19)	$2.46 (.10)	$1.42 (.20)

Source: 1997 Price Survey. Noncompetitive CUIDs by size strata. See footnote 9 for description of size strata. The average monthly rate is for BST, CPST, a remote, and a converter. Programming services and equipment charges were not requested for 1995. Standard error of the estimate is reported in parenthesis.

Attachment D-5: Average Monthly Rate, Number of Channels, and Monthly Rate per Channel by Category of Effective Competition

Year	Low Penetration	Other MVPD	Municipals	LEC
Average Monthly rate				
1997	$27.90 (.67)	$25.62 (1.98)	$24.25 (2.59)	$26.41 (.53)
1996	$25.40 (.55)	$22.26 (1.84)	$22.39 (2.66)	n/a
1995	$23.41 (.56)	$20.39 (1.62)	$20.40 (1.99)	n/a
Average Number of Channels				
1997	44.6 (2.40)	47.3 (4.29)	51 (7.11)	53.5 (2.75)
1996	38.6 (1.87)	41.7 (3.91)	48.5 (6.51)	n/a
1995	37 (1.84)	40.3 (3.39)	46.8 (5.48)	n/a
Average Monthly Rate Per Channel				
1997	$0.72 (.04)	$0.56 (.05)	$.0.48 (.04)	$0.51 (.03)
1996	$0.74 (.04)	$0.55 (.06)	$0.47 (.05)	n/a
1995	$0.71 (.04)	$0.52 (.06)	$0.44 (.05)	n/a
Number of CUIDs in Sample				
1997	58	9	4	12
1996	54	7	4	0
1995	52	7	4	0

Source: 1997 Price Survey. The Average Monthly Rate is for BST, CPST, a remote and a converter. Standard error of the estimate is reported in parenthesis. See footnote 3 for a definition of the four categories of effective competition. Note: the sample size for the Other MVPD, Municipals and LEC subcategories may be too small to draw statistically valid conclusions.

Attachment E : Regression Results

Year	Variable	Coefficient
1995	Competitive Dummy	-0.05 (0.192)
	Reciprocal of Average Number of Subscribers	-0.21 (0.548)
	Reciprocal of Average Total Channels	-5.86 (0.70)
	Intercept	3.34 (0.02)
	Adjusted R Square	.18
	Competitive Impact	-0.05
1996	Competitive Dummy	-0.04 (.02)
	Reciprocal of Average Number of Subscribers	-0.250 (.14)
	Reciprocal of Average Total Channels	-6.63 (0.64)
	Intercept	3.43 (0.02)
	Adjusted R Square	.22 (0.6)
	Competitive Impact	-0.04
1997	Competitive Dummy	-0.05 (0.02)
	Reciprocal of Average Number of Subscribers	-0.25 (.13)
	Reciprocal of Average Total Channels	-8.12 (0.65)
	Intercept	3.55 (.015)
	Adjusted R Square	.29
	Competitive Impact	-.047

Source: 1997 Price Survey. Dependent variable is log of average monthly rate per subscriber for BST and CPST, a remote and a converter. Numbers in parenthesis are standard errors. Total number of observations: 485. The competitive impact is calculated by taking the anti-log of the competitive coefficient minus one.