

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	)	MM Docket No. 92-266
Act of 1992	)	
	)	
Statistical Report on Average Rates for Basic	)	
Service, Cable Programming Service, and	)	
Equipment	)	

**REPORT ON CABLE INDUSTRY PRICES**

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By the Chief, Media Bureau:

**TABLE OF CONTENTS**

Heading	Paragraph #
I. INTRODUCTION AND EXECUTIVE SUMMARY .....	1
II. OVERVIEW OF THE SURVEY .....	7
III. SURVEY RESULTS .....	12
A. Cable Programming Services.....	13
B. Cable Programming Channels .....	17
C. Customer Premises Equipment.....	20
D. DTV Viewability .....	22
IV. CONCLUSIONS .....	26
V. ORDERING CLAUSE .....	27
ATTACHMENTS 1-6	
APPENDIX: Survey Methodology	

## A. INTRODUCTION AND EXECUTIVE SUMMARY

1. Section 623(k) of the Communications Act of 1934, as amended by the Cable Television Consumer Protection and Competition Act of 1992 (Cable Act),<sup>1</sup> requires the Commission to publish annually a statistical report on the average rates that cable operators<sup>2</sup> charge for “basic cable service, other cable programming,” and cable equipment.<sup>3</sup> The Cable Act also requires the Commission to compare the rates of cable operators subject to effective competition, as identified through specific adjudications, with those of cable operators without an adjudicated finding of effective competition.<sup>4</sup> This Report fulfills those statutory directives and presents key findings for the 12 months ended January 1, 2010.<sup>5</sup>

2. *Average prices for all communities.* The average monthly price of expanded basic service (the combined price of basic service and the most subscribed cable programming service tier excluding taxes, fees and equipment charges) for all communities surveyed increased by 3.7 percent over the 12 months ending January 1, 2010, to \$54.44, compared to an increase of 2.5 percent in the Consumer Price Index (CPI). Chart 1 shows the trend in cable prices from 1995 to 2010 compared to the trend in the CPI. Without accounting for the changes that have occurred to the make-up of the expanded basic offering over this 15 year period, expanded basic prices grew from \$22.35 to \$54.44, an increase of 144

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<sup>1</sup> Section 623(k) was adopted as Section 3(k) of the Cable Act, Pub. L. No. 102-385, 106 Stat. 1460, codified at 47 U.S.C. § 543(k).

<sup>2</sup> All averages in this report are weighted averages where the weight given to an individual cable operator depends on the number of subscribers to the operator in that community. For the purpose of our report, a cable operator (or operator) refers to an entity which operates a wireline system and is a multichannel video programming distributor (MVPD) that makes available for purchase, by subscribers or customers, multiple channels of video programming. See 47 C.F.R. § 76.905(d). In our report, the term cable operator includes operators of traditional coaxial and fiber wireline cable systems, municipalities, and telephone companies, including Verizon FiOS. It does not include MVPD operators of wireless systems, direct broadcast satellite (DBS), or AT&T U-verse, because these operators are not associated with any FCC Community Unit Identifiers.

<sup>3</sup> The Cable Act requires operators to offer an entry-level basic service, which must include, at a minimum, all commercial and noncommercial local broadcast stations entitled to carriage under the must-carry provisions of the Communications Act of 1934, 47 U.S.C. §§ 534-35. Basic service must also offer any other local broadcast station provided to any subscriber, as well as public, educational, and governmental access channels that the local franchise authority (LFA) may require the operator to carry. See 47 U.S.C. § 543(b)(7). The term “cable programming service” refers to a tier of video channels for which the operator charges a separate rate, other than the basic service channels and channels for which per-channel or per-program charges apply. See 47 U.S.C. § 543(k)(1)(2). Cable equipment refers to a converter box and other customer premises equipment used for accessing cable services. See 47 U.S.C. § 543(b)(3).

<sup>4</sup> See 47 U.S.C. § 543(k)(1) (cross-referencing 47 U.S.C. § 543(a)(2)). Under the Cable Act, if the Commission grants a finding of effective competition to an operator and the community it serves, that operator is not subject to regulation of its basic service price. Such a finding requires the operator to meet one of four tests: (1) fewer than 30 percent of households subscribe to the operator’s cable programming service (low penetration test); (2) the operator and at least one other MVPD offer comparable service to at least 50 percent of households and at least 15 percent of households subscribe to such service other than from the largest MVPD (50/15 test); (3) a municipality offers MVPD service to at least 50 percent of households (municipal test); or (4) a local exchange carrier (LEC) or its affiliate, or an entity using the facilities of the LEC or its affiliate, offers MVPD service by means other than DBS service in an area that an unaffiliated MVPD also serves (LEC test). See 47 C.F.R. § 76.905(b). The LFA may not regulate the operator’s rate for basic cable service if the operator is deemed subject to effective competition, unless the LFA seeks and the Commission grants recertification. See 47 U.S.C. §§ 543(a)(2) and 47 C.F.R. § 916(a). Operators serving communities where no finding of effective competition has been made may have market competition sufficient to warrant a finding of effective competition, but for various reasons have not filed a petition, or if filed, the request may be pending or may have been granted after the cut-off date for our survey.

<sup>5</sup> The information in this report meets the Commission’s information quality guidelines. See *Implementation of Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility and Integrity of Information Pursuant to Section 515 of Public Law No. 105-554*, Information Quality Guidelines, 17 FCC Rcd 19890 (2002).

percent, or 6.1 percent on a compound average annual basis, compared to the CPI increase of 44 percent, or 2.5 percent annually over the same period. However, the price per channel (price divided by number of channels) for subscribers purchasing expanded basic service decreased by 6.7 percent over the 12 months ending January 1, 2010, to 56 cents per channel. Over the 15 years from 1995-2010, the average annual increase in price per channel was less than 1 percent per year (0.6 percent).

3. *Average prices in communities with a finding of effective competition compared with prices in noncompetitive communities.* Over the 12 months ending January 1, 2010, the average price of expanded basic service increased by 3.2 percent, to \$54.27, for those operators serving communities for which no effective competition finding was made as of January 1, 2010 (noncompetitive communities). For the effective competition communities, the average price of expanded basic increased by 4.6 percent, to \$54.77. Over this period, price per channel declined by 6.1 percent in noncompetitive communities, to 58 cents per channel, and by 10.0 percent in effective competition communities, to 51 cents per channel. The price per channel is 12.3 percent lower in effective competition communities than in noncompetitive communities, which reflects that operators in effective competition communities carry more channels on expanded basic service than in noncompetitive communities.

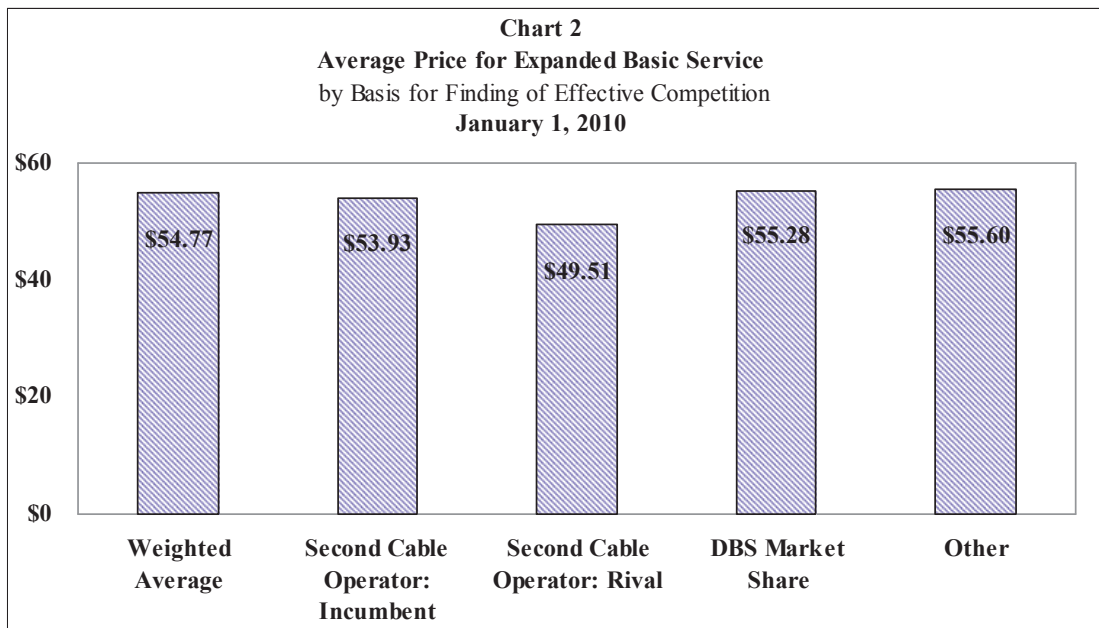
4. As noted, the price of expanded basic service in effective competition communities (for all effective competition communities combined) averaged slightly higher than the price of expanded basic service for those operators serving noncompetitive communities. However the difference is not statistically significant. For the first time in last year's survey we found that the price of expanded basic service in effective competition communities was higher than the price of expanded basic in noncompetitive communities. Earlier surveys found that effective competition communities in general had lower prices.<sup>6</sup> As discussed further in Section III, several factors contributed to these changes,

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<sup>6</sup> See Attachment 4 for citation to previous survey reports. As noted, the effective competition average price exceeded the noncompetitive average price for the first time in the 2009 survey.

including an increase in the number of communities where there has been a finding of effective competition based on the DBS market share test.

5. Chart 2 compares the expanded basic price in effective competition communities overall (\$54.77) to subgroups of communities, as of January 1, 2010. Prices on average were 1.5 percent lower (\$53.93) for incumbent cable operators in communities with a rival operator; 9.6 percent lower (\$49.51) for the rival operators; 0.9 percent higher (\$55.28) when a finding was granted based on the DBS market share exceeding the 15 percent threshold established by the statute; and 1.5 percent higher (\$55.60) in the “other” subgroup of cable operators competing with a wireless MVPD system or who met the low penetration test as a result of serving fewer than 30 percent of households.



6. The 2010 survey questionnaire was revised and significantly streamlined in order to reflect changes in technology and industry conditions, including pricing structures, and to delete questions not specifically related to the core statutory requirements. The survey no longer collects information on system capacity measured in MHz, or asks whether the cable system is part of a geographic “cluster”. Previous surveys focused on the separate price consumers pay for each tier of cable channels added onto the basic service tier. The video services marketed by cable operators are bundles of channels that form a service package. Therefore, questions about specific tiers were replaced with questions about basic service, expanded basic service, and the next most popular video service package. In addition, in light of the completion of the broadcast digital transition, we ask operators to report the total number of channels offered in each service package. Each standard definition and high definition simulcast feed of a broadcast signal and each multicast broadcast signal is counted separately, as is each standard definition and high definition feed of a cable network. Therefore, unique program streams (broadcast as well as cable programming) are counted as more than one channel if they are distributed to consumers in multiple formats (*i.e.*, analog, standard definition, and high definition). Because cable operators now generally provide the same channels in multiple formats, the number of channels reported has increased substantially. We made this change to account for the increase in consumers’ ability to view video programming in a variety of formats due to the improvements in television sets and customer premises equipment technology. We deleted questions relating to programming expenses, cable networks sold individually, installation charges, and the availability, prices, and subscription revenues of certain video programming packages, high-speed Internet access services, and telephony services because they are unrelated to the statutory requirements. Overall, the number of questions in the survey was reduced by

approximately one-third, making the survey more focused on the core statutory requirements and less burdensome for cable operators to complete.

## II. OVERVIEW OF THE SURVEY

7. The information and analysis provided in this Report are based on the Commission's 2010 survey of cable industry prices (survey).<sup>7</sup> The survey requested data from a random sample of 800 cable operators serving two groups of communities: (1) communities where operators have not been found to meet one of the statutory tests for effective competition (noncompetitive communities); and (2) communities where operators have been found to meet one of the statutory tests for effective competition and, as a result, the cable operator serving that community is not subject to price regulation of its basic service by the local franchise authority (effective competition communities).

8. We surveyed operators serving 528 out of the 26,722 noncompetitive communities and 272 out of the 7,308 communities granted an effective competition finding pursuant to the statute. In selecting cable operators for our sample from the group of effective competition communities, we relied on the Commission's formal findings of effective competition, which are based on the statutory definition of effective competition in the Cable Act.<sup>8</sup> Most of the effective competition cases that come before the Commission are based on competition between a cable operator and a DBS provider. The remaining effective competition cases are based on competition between a cable operator and a wireline or wireless competitor, or are based on low subscriber penetration. Our list of communities granted a finding of effective competition was limited to adjudicated findings of effective competition because the statute fails to take into account those areas of the country where the conditions for a finding may be present (*i.e.*, where sufficient market-based competition may be present to warrant such a finding), but no finding has been granted as of the date our sample was drawn.<sup>9</sup>

9. *Brief Overview of Survey Methodology.* The sample of cable operators granted a finding of effective competition was selected from four subgroups according to the primary basis for the finding. Attachment 1 and the Appendix describe our sampling methodology. The first two subgroups are comprised of communities in which a second wireline operator's offerings provided the basis for the finding of effective competition. The first subgroup (Second Cable Operator: Incumbent) consists of the incumbent operator in the community and the second subgroup (Second Cable Operator: Rival) consists of the rival operator in the community. The incumbent is the operator who provided service prior to the rival operator's introduction to the market. Findings of effective competition for this incumbent subgroup are on the basis of either (a) the 50/15 test resulting from the presence of at least two MVPDs or (b) the local exchange carrier (LEC) test resulting from the presence of at least two MVPDs, one of which is a LEC or an entity affiliated with or using the LEC's facilities. The third subgroup contains operators in communities in which a sufficient percentage of households subscribed to DBS service to substantiate a finding of effective competition under the 50/15 test (DBS subgroup). The fourth subgroup consists of operators in communities that are either (a) in range of a wireless operator who offers MVPD programming comparable to the cable operator's offerings or (b) met the low penetration test as a result of serving fewer than 30 percent of households in the service area (Other Operators). All effective

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<sup>7</sup> The Commission directed a randomly selected sample of cable operators to respond to a survey questionnaire that requested data primarily as of January 1, 2009 and January 1, 2010. See *Implementation of Section 3 of the Cable Television Consumer Protection and Competition Act of 1992, Statistical Report on Average Prices for Basic Service, Cable Programming Services, and Equipment*, 25 FCC Rcd 10958 (2010).

<sup>8</sup> See 47 U.S.C. § 543(a)(2).

<sup>9</sup> We note that, because DBS service is available nationwide with a national penetration rate greater than 15 percent, there likely are many areas of the country where DBS penetration exceeds the 15 percent threshold set forth in the 50/15 test for effective competition, but the incumbent cable operator has not requested a finding of effective competition. In addition, there may be cases in which a finding has been requested but not granted as of the date our sample was drawn.

competition findings associated with a wireless MVPD have been made under the LEC test, although the Commission could also make a finding of effective competition based on the presence of a wireless MVPD under the 50/15 test, assuming the wireless MVPD's service met the requirements for that test.

10. For each community selected for the sample, the operator serving that community was asked to complete a questionnaire that included questions on the prices of basic cable service and other cable programming service offerings. We used the information collected to estimate and compare average prices across the sample groups and subgroups. Basic service consists of the local broadcast stations; public, educational, and governmental access channels; and typically a few additional channels that may be of local, regional, national, or international origin. Subscribers purchase basic service as a prerequisite to subscribing to expanded basic. The survey focused on expanded basic service, which consists of the basic service channels plus a large number of popular national cable networks. Expanded basic service is generally the most-subscribed-to level of service after basic service. We also collected information on the price of the "next most popular" (next most subscribed) service after expanded basic. This next most popular service package generally includes all the programming channels included in the expanded basic service package and at least seven additional cable network channels. As of January 1, 2010, 85 percent of subscribers took at least expanded basic service, and 15 percent took basic service only.<sup>10</sup> In addition, 46 percent of subscribers on average took the next most popular programming service. Survey respondents were asked to report prices as of January 1, 2009 and January 1, 2010, which permitted us to calculate the annual percentage changes for the year ending January 1, 2010. We calculated averages for each survey question by subgroup, by the larger sample groups, and for communities overall.

11. *Accuracy and Reliability Review.* We have taken a number of steps to ensure the accuracy and reliability of the raw data upon which this report is based. Several of these steps were introduced beginning with the 2009 survey and go beyond the practices implemented in prior years. Our survey is fully Internet-based, which means we provide it to respondents on the Commission's Internet site and the questionnaires are completed and submitted to us on that site. Many of the questions have built-in checks for reasonableness, which prompt the respondents to re-check their answers as they are completing the survey if those answers fall outside of a predetermined "range of reasonableness" based on our experience with prior price surveys. A second responsible party within each cable operator's company (other than the person who completed the survey) is asked to certify the completeness and accuracy of that company's responses. After receiving the submitted surveys, we examine all responses using a computer program designed specifically to identify observations with apparent inaccuracies. When a particular response is found to lie outside of its statistically expected reasonable range or is inconsistent with the answers to other questions in the questionnaire, the computer program automatically flags that response and we contact the cable operator and ask that operator to re-check the flagged response and make corrections if needed.<sup>11</sup>

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<sup>10</sup> This 85 percent includes subscribers whose operators do not offer a separate expanded basic service tier but instead offer a basic service tier that includes many of the popular national networks typically associated with expanded basic. All operators are required to offer a basic service tier that includes, at a minimum, those channels prescribed by statute, but the statute does not require operators to offer a separate expanded basic service, *i.e.*, an offering that includes both the basic service tier and other cable programming. When an operator offers both a basic service tier and a separate expanded basic service, the former is sometimes referred to as "limited basic." The survey results indicate that less than three percent of subscribers receive basic service from operators that do not also offer expanded basic service, *i.e.*, from operators that do not offer a "limited basic" service.

<sup>11</sup> The percentage of survey responses that requires follow-up inquiries varies over time based on such factors as the familiarity of the respondents with the survey, the complexity of the questions, and introduction of new questions to the survey instrument. For the purposes of the 2010 survey, we contacted approximately one-third of the survey respondents with follow-up inquiries, which is substantially fewer than the number of cable operators contacted for the 2009 survey, principally because the 2010 survey contained fewer and less complex questions. Each of these operators replied with a data correction or a reasonable explanation of why a particular response was plausible.

### III. SURVEY RESULTS

12. In the 2008-2009 period a substantial increase occurred in the number of cable operators and communities where effective competition was found. This fact influenced the comparisons contained in this Report. Specifically, during the 2009 and 2010 survey periods, communities subject to effective competition grew to 7,308, more than double the 3,205 communities identified in the 2008 survey. Most of these new findings occurred on the basis of DBS market share. Communities in the DBS subgroup more than doubled, from 2,343 in 2008 to 5,133 for the 2010 survey. The DBS subgroup now accounts for 66 percent of cable subscribers in communities with an effective competition finding. In addition, communities where incumbent operators were found to face effective competition as a result of the presence of a second operator increased from 165 in 2008 to 538 in 2010, and now account for 26 percent of subscribers in communities with an effective competition finding.

#### A. Cable Programming Services

13. Table 1 reports the average price of basic, expanded basic, and the next most popular service (including at least seven additional channels) as of January 1, 2010.<sup>12</sup> It also shows the average price per channel for expanded basic service.<sup>13</sup> Further, Table 1 reports the annual percentage change in price, for the year ending January 1, 2010, for the sample overall, for the noncompetitive group and the effective competition group and subgroups. Looking at the averages in the Overall Average column, the price was \$17.93 for basic service (5.5 percent increase), \$54.44 for expanded basic service (3.7 percent increase) and \$66.75 for the next most popular service (3.3 percent increase). The price per channel was 56 cents (7.3 percent decrease) for expanded basic service.

Cable Programming Service	Overall Average	Non Competitive	Effective Competition Subgroups					
			Group	Second Cable Operator			DBS	Other
				Incumbent	Rival	Both		
<b>Basic service</b>	\$17.93	\$17.97	\$17.84	\$16.39	\$15.94	\$16.31	\$17.99	\$21.20
Annual change	5.5%	4.6%	7.3%	6.7%	-2.5%	5.0%	7.5%	10.3%
<b>Expanded basic</b>	\$54.44	\$54.27	\$54.77	\$53.93	\$49.51	\$53.18	\$55.28	\$55.60
Annual change	3.7%	3.2%	4.6%	5.7%	2.3%	5.1%	4.2%	6.7%
<b>Next most popular</b>	\$66.75	\$66.99	\$66.28	\$65.62	\$62.11	\$65.02	\$66.44	\$68.83
Annual change	3.3%	2.8%	4.3%	5.6%	1.6%	4.9%	3.6%	7.8%
<b>Expanded basic price per channel</b>	\$0.56	\$0.58	\$0.51	\$0.50	\$0.40	\$0.48	\$0.52	\$0.52
Annual change	-7.3%	-6.1%	-10.0%	-6.5%	1.8%	-5.5%	-11.7%	-8.3%

Source: Attachment 2.

<sup>12</sup> Except for price per channel, prices in this table do not include customer premises equipment unless the operator bundles the programming service and equipment in a single price. Attachment 6 reports the price of programming, including equipment, for all operators.

<sup>13</sup> Price per channel adjusts the expanded basic programming price for quality differences in terms of the number of channels the subscriber receives. It equals the expanded basic programming price plus the price of the most commonly leased equipment divided by the number of expanded basic channels including channels which may require a converter box or other digital gateway equipment to be received.

14. Table 2 reports the price differentials between the effective competition group overall (and subgroups) and the noncompetitive group. The averages of the price differentials for the three service packages overall between the effective competition and the noncompetitive groups are not statistically significant. One reason for this is that although some prices in the competitive group are lower, there is a relatively small price differential in the findings for the DBS subgroup of cable operators (differentials range from 1 percent lower to 2 percent higher than in the noncompetitive group). This contributes considerably to the lack of a significant differential for the overall group (differentials range from 1 percent lower to 1 percent higher overall).<sup>14</sup> In addition, in contrast to prices charged prior to 2009, expanded basic prices are growing fastest in the effective competition communities, at 4.6 percent over the 12 months ending January 1, 2010, compared to 3.2 percent over the period for noncompetitive communities, as shown in Table 1. Some price differentials for cable services for the remaining effective competition subgroups are statistically significant (the asterisk \* indicates a statistically significant differential). For the rivals in the Second Cable Operator subgroup, all prices are significantly lower -- basic service is 11.3 percent lower and the price of expanded basic for rival operators is 8.8 percent lower while the next most popular service is 7.3 percent lower in price than for the operators in noncompetitive communities. In the Other subgroup, the price of basic service is significantly higher (18.0 percent) than for the operators in noncompetitive communities. Finally, on a per channel basis, the price per channel for expanded basic service is significantly lower for all competitive subgroups relative to the noncompetitive group. This is so because cable operators in the effective competition group, on average, carry more channels than operators in the noncompetitive group.

Cable Programming Service	Effective Competition Group Overall	Second Cable Operator Subgroup			DBS Subgroup	Other Subgroup
		Incumbent	Rival	Both		
Basic service	-0.7%	-8.8%	-11.3%*	-9.3%*	0.1%	18.0%*
Expanded basic	0.9%	-0.6%	-8.8%*	-2.0%	1.9%	2.4%
Next most popular	-1.1%	-2.0%	-7.3%*	-2.9%	-0.8%	2.7%
Expanded basic price per channel	-12.3%*	-14.7%*	-31.0%*	-17.5%*	-10.3%*	-11.2%*

Source: Attachment 2. \* Indicates a statistically significant differential at the 95% confidence level.

15. Table 3 shows that the average price of expanded basic service grew at a compound annual rate of 6.1 percent over the 15-year period from 1995-2010, higher than the annual 2010 increase of 3.7 percent shown in Table 1.<sup>15</sup> Over the 15-year period, the number of channels offered with expanded basic service grew annually at 4.9 percent, and price per channel grew by less than one percent (0.6 percent) on an annual basis.<sup>16</sup> For comparison, the CPI for All Items published by the Bureau of

<sup>14</sup> The DBS subgroup constitutes about two-thirds of all effective competition findings and thus has considerable weight. Note that the survey does not include DBS prices but rather the prices that cable operators charge in areas where an effective competition finding was made on the basis of DBS market share. See note 2, *supra*.

<sup>15</sup> The 2009 prices in Table 3 were obtained from the 2009 survey and do not exactly match the 2009 prices reflected in the 2010 survey shown in Attachment 2. This is the result of random variance between survey samples.

<sup>16</sup> In Table 3, 2010 is the start of a new data series for channels and price per channel, reflecting the change to the survey questionnaire. The difference between the 2009 and 2010 number of channels results in part from the difference in the set of channels surveyed. The price per channel index in Table 3 adjusts for this difference in order to accurately measure the percent change in the number of channels between 2009 and 2010. See the Appendix, Section C, for a more complete explanation.



Labor Statistics (BLS) as a measure of general price inflation grew annually at 2.5 percent over the 15 years. BLS also publishes a CPI for Cable, Satellite, and Radio Services, which grew annually at 4.3 percent over the 15 years.<sup>17</sup>

Year	Basic Service Price	Expanded Basic Service					Next Most Popular Service & Equipment	CPI	
		Price	Number of Channels		Price Per Channel			All Items	Cable
			Number	Index	Dollars	Index			
1995	---	\$22.35	44	100.0	\$0.60	100.0	---	100.0	100.0
1996	---	\$24.28	47	106.8	\$0.61	101.7	---	103.0	106.9
1997	---	\$26.31	49	112.3	\$0.63	105.0	---	105.2	114.9
1998	\$12.06	\$27.88	50	113.9	\$0.65	108.3	\$38.58	107.0	122.6
1999	\$12.58	\$28.94	51	116.1	\$0.65	108.3	\$38.43	109.3	127.0
2000	\$12.84	\$31.22	55	124.5	\$0.66	110.0	\$39.64	113.3	132.9
2001	\$12.84	\$33.75	59	135.0	\$0.60	100.0	\$45.33	116.4	139.1
2002	\$14.45	\$36.47	63	142.5	\$0.66	110.0	\$46.59	118.1	147.8
2003	\$13.45	\$38.95	68	153.4	\$0.65	108.3	\$49.03	120.9	154.7
2004	\$13.80	\$41.04	70	159.8	\$0.66	110.0	\$51.76	123.2	160.7
2005	\$14.30	\$43.04	71	160.2	\$0.62	103.3	\$56.03	126.9	167.0
2006	\$14.59	\$45.26	71	161.4	\$0.65	108.3	\$59.09	131.9	171.8
2007	\$15.33	\$47.27	73	165.0	\$0.67	111.7	\$60.27	134.7	176.4
2008	\$16.11	\$49.65	73	165.5	\$0.68	113.3	\$63.66	140.4	181.1
2009	\$17.65	\$52.37	78	177.7	\$0.71	118.3	\$67.92	140.5	183.7
2010 *	\$17.93	\$54.44	117	204.6	\$0.56	109.7	\$71.39	144.2	189.1
Total and Average Annual Change									
Total	---	144%	---	105%	---	10%	---	44%	89%
Annual	3.4%	6.1%	---	4.9%	---	0.6%	5.3%	2.5%	4.3%

Source: Attachment 4.

16. The survey also collects data on a “family-friendly” package of channels specifically marketed as a substitute for expanded basic. A number of operators offer such a programming service as an alternative targeted toward subscribers who may object to some of the programming on expanded basic. Survey responses show that the typical family package offers fewer channels than expanded basic and requires a converter or other digital gateway. Some operators bundle the digital equipment with the family-friendly package, while in other cases it is leased separately. Typically, the family-friendly package includes basic service and some, but not all, of the channels included in expanded basic service. It also includes some channels included in the next most popular service or other programming service package. Operators offered an average of 60 channels with a family-friendly package, compared to 41 channels for basic service and 117 channels expanded basic service. While 39 percent of subscribers had the option to elect a family-friendly package, as of January 1, 2010, less than one percent subscribed, the others electing to take basic service or expanded basic service. While this low percentage likely reflects a number of factors, the data indicate that family-friendly packages generally lack sports programming (e.g. ESPN) and thus many families may not consider it to be a viable alternative to expanded basic service.

<sup>17</sup> Because it covers a different mix of services and is adjusted for change in the number of programming channels, the Cable, Satellite, and Radio CPI cannot be compared directly with the change in cable prices in our survey.

On average, expanded basic service packages included 2.1 channels devoted to regional sports networks,<sup>18</sup> and family-friendly packages included 0.3 channels devoted to regional sports networks. As of January 1, 2010, the average price for a family-friendly package, including the additional price of equipment if not included with the package, was \$32.70, which fell between the average for basic service (\$17.93) and expanded basic service (\$54.44).

#### B. Cable Programming Channels

17. Table 4 shows the average number of video channels offered, the annual percentage change in the number of video channels offered over the previous 12 months, and whether the number of video channels offered in the effective competition subgroups is statistically different from the noncompetitive group (indicated with an asterisk \*). Channels shown under “Expanded basic” include all “Basic service” channels. The “Next most popular” service package includes “Expanded basic” channels plus at least seven additional channels.<sup>19</sup> Overall, the number of channels average 41, 117, and 189, respectively, for basic service, expanded basic service, and the next most popular service package. The average number of video channels for all services is 340, which consists of the channels shown with basic, expanded basic, the next most popular package, other non-premium and premium packages, and pay and per-view programming services. Channels offered with each service grew annually over 10 percent. Looking at effective competition subgroups, the number of channels in almost all subgroups and services are significantly higher than in the noncompetitive group counterparts.

Cable Programming Service	Overall Average	Non Competitive	Effective Competition Subgroups					
			Group	Second Cable Operator			DBS	Other
				Incumbent	Rival	Both		
<b>Basic service</b>	41	37	48*	50*	43*	49*	48*	44*
Annual change	11.1%	9.6%	13.6%	13.7%	-5.9%	10.3%	15.7%	8.9%
<b>Expanded basic</b>	117	112	128*	129*	184*	138*	125*	116
Annual change	15.1%	13.6%	18.1%	13.1%	6.2%	11.6%	21.3%	17.8%
<b>Next most popular</b>	189	180	206*	213*	227*	215*	204*	199
Annual change	15.4%	13.2%	19.5%	17.6%	7.6%	15.7%	21.0%	20.6%
<b>All services</b>	340	310	401*	433*	466*	439*	391*	364
Annual change	12.5%	11.1%	15.0%	12.5%	7.9%	11.7%	16.7%	14.2%

Source: Attachment 3. \* Indicates a statistically significant difference between an effective competition subgroup and the noncompetitive group at the 95 percent confidence level.

18. Table 5 displays basic service broken into its component channel categories, which vary only by a few channels between effective competition and noncompetitive communities. The categories are local broadcast; public, educational, and governmental (PEG) access; commercial leased access; non-premium regional sports networks; and other non-premium channels.

<sup>18</sup> Regional sports networks are defined in paragraph 19, below.

<sup>19</sup> The survey asks respondents to provide the maximum number of video channels, including those which require customer premises equipment to view. These video channels include local broadcast (including all viewing formats and both main channel and multicast channels); public, educational, and governmental; commercial leased access; other non-premium; video on demand offering free content; and other channels if offered at no extra programming charge. The numbers do not include audio only channels.

Channel Category	Overall Average	Non Competitive	Effective Competition Subgroups					
			Group	Second Cable Operator			DBS	Other
				Incumbent	Rival	Both		
Analog & SD digital	13.6	12.1	16.7	15.0	15.4	15.0	17.2	17.5
HD digital versions	3.8	3.6	4.1	3.8	6.4	4.3	4.1	3.6
Multicast channels	<u>6.6</u>	<u>5.5</u>	<u>9.0</u>	<u>9.9</u>	<u>8.1</u>	<u>9.6</u>	<u>8.9</u>	<u>8.4</u>
<b>Total local broadcast</b>	24.0	21.1	29.8	28.7	29.9	28.9	30.2	29.5
<b>PEG</b>	3.6	3.4	4.1	4.0	5.9	4.3	4.2	2.6
<b>Leased access</b>	1.1	1.0	1.2	1.7	0.6	1.5	1.2	0.8
<b>Regional sports</b>	0.2	0.2	0.3	0.5	0.2	0.5	0.2	0.3
<b>Other</b>	<u>12.0</u>	<u>11.6</u>	<u>12.7</u>	<u>15.0</u>	<u>6.3</u>	<u>13.5</u>	<u>12.6</u>	<u>10.5</u>
<b>Total</b>	41.0	37.4	48.1	49.9	42.9	48.7	48.5	43.6

Source: Survey.

19. Table 6 reports the number of regional sports networks (RSNs) included in service offerings. Overall, the average is 0.2 RSN channel on basic service, 2.1 channels on expanded basic service, and 2.3 on the next most popular service package. A regional sports network in this report is defined as a channel that carries a substantial number of live games from at least one nearby professional sports team that is a member of the National Football League, Major League Baseball, the National Basketball Association, or the National Hockey League. It does not include pay-per-view events.

Cable Programming Service	Overall Average	Non Competitive	Effective Competition Subgroups					
			Group	Second Cable Operator			DBS	Other
				Incumbent	Rival	Both		
<b>Basic</b>	0.2	0.2	0.3	0.5	0.2	0.5	0.2	0.3
<b>Expanded basic</b>	2.1	1.9	2.5	2.9	4.3	3.1	2.4	2.2
<b>Next most popular</b>	2.3	2.1	2.7	3.0	4.6	3.3	2.6	2.2

Source: Survey.

### C. Customer Premises Equipment

20. The survey asked cable operators if subscribers would need equipment to view all or some channels when purchasing each programming service. Such equipment can include, for example, a converter set-top box to enable consumers to view digital signals on analog TVs, or a high definition (HD) converter that allows consumers to view a local broadcast station's HD channel in HD format. If respondents answered in the affirmative, the survey asked operators to report the extra monthly fee required to lease the most commonly-leased equipment for this purpose. Operators were also asked to identify the equipment features, such as an interactive programming guide. Table 7 shows that, as of January 1, 2010, the average equipment price was \$4.60 with basic service, \$6.40 with expanded basic service, and \$6.94 with the next most popular service package.<sup>20</sup> Most equipment prices increased on an annual basis. The overall price increase for the most commonly leased equipment with expanded basic

<sup>20</sup> An equipment price is not included in the average price of equipment if the respondent stated that the price of programming already includes equipment or that equipment is unnecessary to view all or some of the channels.

service was 4.5 percent. This is higher than the expanded basic programming price increase of 3.7 percent (shown in Table 1). The overall equipment price increases for basic service (1.1 percent) and the next most popular services (0.6 percent) were lower than the programming price increases for those services (5.5 percent and 3.3 percent respectively). Finally, we note that equipment may change from year to year and thus the comparison of equipment prices to some extent may reflect quality change.

Cable Programming Service	Overall Average	Non Competitive	Effective Competition Subgroups					
			Group	Second Cable Operator			DBS	Other
				Incumbent	Rival	Both		
<b>Basic service</b>	\$4.60	\$4.46	\$4.84	\$6.11	\$6.01	\$6.09	\$4.54	\$3.77
Annual change	1.1%	0.5%	2.0%	5.5%	-4.1%	3.9%	-0.4%	22.1%
<b>Expanded basic</b>	\$6.40	\$6.22	\$6.72	\$6.70	\$6.65	\$6.69	\$7.03	\$4.50
Annual change	4.5%	3.8%	5.6%	5.4%	0.3%	4.4%	3.8%	39.0%
<b>Next most popular</b>	\$6.94	\$6.82	\$7.18	\$7.05	\$9.32	\$7.40	\$7.17	\$5.30
Annual change	0.6%	0.1%	1.5%	3.9%	-0.8%	3.0%	0.9%	3.4%

Source: Survey.

21. Table 8 identifies equipment features and the percent of cable systems in which the most commonly leased equipment includes one or more of the following features: a remote control unit (RCU), an interactive programming guide (IPG), HD video capability, or a digital video recorder (DVR). For customers purchasing basic service only, 94 percent of systems offer a RCU. The most commonly leased equipment for 87 percent of systems include an interactive programming guide; for 29 percent of systems, the most commonly leased equipment includes HD video capability; and for 16 percent of systems, the most commonly leased equipment includes a DVR. Percentages are similar across all three services.

Cable Programming Service	Feature	Overall Average	Non Competitive	Effective Competition Subgroups					
				Group	Second Cable Operator			DBS	Other
					Incumbent	Rival	Both		
<b>Basic service</b>	DVR	16%	10%	25%	58%	0%	49%	20%	0%
	HD	29%	25%	36%	67%	13%	59%	31%	13%
	IPG	87%	87%	88%	95%	88%	94%	89%	69%
	RCU	94%	91%	98%	100%	88%	98%	98%	100%
<b>Expanded basic service</b>	DVR	17%	13%	24%	58%	0%	48%	19%	0%
	HD	32%	29%	38%	67%	11%	57%	34%	19%
	IPG	88%	87%	89%	95%	87%	93%	90%	69%
	RCU	93%	91%	98%	100%	87%	98%	98%	100%
<b>Next most popular</b>	DVR	20%	15%	28%	58%	6%	49%	24%	0%
	HD	38%	33%	47%	66%	73%	67%	39%	44%
	IPG	94%	92%	97%	100%	89%	98%	98%	94%
	RCU	92%	88%	98%	100%	87%	98%	97%	100%

Source: Survey.

**D. DTV Viewability**

22. The survey asked respondents to identify the scenario which best describes how signals sent from local broadcast stations are processed at the cable system headend and transmitted from there to subscriber premises as of January 1, 2010.<sup>21</sup> All operators in our survey responded that headend equipment was in place to receive analog and digital broadcast signals. Scenarios identify how the operators format those signals and transmit the signals to customer premises for viewing in analog, standard definition (SD) or HD digital formats. The tables below report the percentage of subscribers on average whose cable system operates under each scenario. Table 9 provides this information by sample group and Table 10 by subscriber size of the cable system.

23. Figures shown in the Overall column for all sample groups in Table 9 show that most households or other subscriber premises (84 percent) received analog, SD, and HD signals over three separate paths for viewing by analog, SD, and HD customers, respectively. Eight percent received signals over all-digital systems with HD and SD capability. Under this scenario, if a signal is transmitted in HD format, it is converted to SD and then from SD to analog using customer premises equipment, for viewing by SD digital and analog television customers, respectively. Five percent of subscribers received signals over separate analog and digital paths. In this scenario, a signal transmitted in HD format over the digital path is converted to SD format using customer premises equipment for viewing by SD digital customers. Analog signals are sent over the analog path. Only two percent of subscribers received signals over an analog-only system and another two percent received signals over an SD digital-only system. In the latter scenario, the SD signal is converted to analog format using customer premises equipment for viewing by analog television customers.

Path of Signal Cable System Headend to Customer Premises and Equipment (CPE)	Overall	Non Compet- itive	Effective Competition Subgroups					
			Group	Second Cable Operator			DBS	Other
				Incumb- ent	Rival	Both		
3 separate analog/SD/HD paths	84%	82%	89%	86%	23%	76%	93%	94%
HD/SD path. CPE converts HD to SD & then SD to analog	8%	8%	8%	12%	62%	21%	4%	0%
2 separate analog/digital paths. CPE converts HD signal to SD	5%	5%	3%	2%	15%	4%	3%	0%
Analog path and viewing only	2%	3%	0%	0%	0%	0%	0%	0%
SD path. CPE converts from SD to analog for analog TV	2%	2%	1%	0%	0%	0%	0%	6%

Source: Survey. Scenarios may not add to 100% due to rounding.

<sup>21</sup> Cable operators are required to ensure that subscribers with analog television sets can continue to view all must-carry stations after the end of the digital television transition. Cable operators may either carry such signals in analog or, for all-digital systems, in digital only. This requirement is in force for three years from the date of the transition, subject to review by the Commission during the last year of this period. To assist in this review, the Commission has included questions in the cable price survey which address viewing capability. See Digital Television Broadcast Signals: Amendment to Part 76 of the Commission's Rules, CS Docket 98-120, 22 FCCR 21064, 21070.

24. Table 10 displays the percentages shown in Table 9 arranged by cable system size. Looking at the scenario for three separate analog/SD/HD paths, the percent of subscribers whose system had this architecture ranged from 88 percent of very large systems to 44 percent of very small systems. HD/SD digital systems with no analog path ranged from six percent to eight percent of the total. For systems which transmit over an analog path and separate digital path, the percentage of subscribers ranges from 19 percent for very small systems to three percent for large systems. Analog-only architectures comprised 31 percent of very small and 18 percent of small system subscribers. SD digital systems served five percent of large and medium system subscribers, and one percent of very large and small system subscribers.

<b>Table 10</b>					
<b>Path of Local Broadcast Signals</b>					
Percent of Subscribers by Cable System Size					
January 1, 2010					
Path of Signal Cable System Headend To Customer Premises and Equipment (CPE)	Subscriber Size of Cable System				
	Very Large	Large	Medium	Small	Very Small
	Over 75,000	25,001-50,000	10,001-25,000	1,001-10,000	Under 1,000
3 separate analog/SD/HD paths	88%	85%	77%	67%	44%
HD/SD path. CPE converts HD to SD / SD to analog	7%	7%	8%	8%	6%
2 separate analog/digital paths. CPE converts HD to SD	4%	3%	10%	6%	19%
Analog path and viewing only	0%	0%	0%	18%	31%
SD path. CPE converts SD signal to analog format	1%	5%	5%	1%	0%

Source: Survey. Scenarios may not add to 100% due to rounding.

25. Table 11 reports the average number of local broadcast channels by carriage election (either retransmission consent or must carry) and by channel viewing format (either analog, SD, or HD). The channels counted consist of main signals and simulcasts of the main signal on separate analog, SD, or HD channels. The counts do not include multicast signals. Table 11 shows little difference in the overall average of the number of channels carried via retransmission consent (8.6) compared to must carry (8.8). More analog and SD channels were must-carry channels (7.2) than retransmission consent (6.4), and more HD channels were retransmission consent channels (2.2) than must carry (1.6).

<b>Table 11</b>									
<b>Average Number of Local Broadcast Channels</b>									
By Carriage Election and Channel Format									
January 1, 2010									
Cable Programming Service	Viewing Format	Overall Average	Non Competitive	Effective Competition Subgroups					
				Group	Second Cable Operator			DBS	Other
					Incumbent	Rival	Both		
Retransmission consent	Analog/SD	6.4	5.5	8.1	6.7	7.9	6.9	8.4	9.1
	HD digital	2.2	2.0	2.5	1.6	4.6	2.1	2.6	2.6
	Total	8.6	7.6	10.6	8.3	12.5	9.0	11.0	11.8
Must carry	Analog/SD	7.2	6.6	8.6	8.3	7.5	8.1	8.8	8.4
	HD digital	1.6	1.6	1.6	2.2	1.8	2.1	1.5	0.9
	Total	8.8	8.1	10.2	10.5	9.3	10.3	10.3	9.3

Source: Survey.

#### IV. CONCLUSIONS

26. Expanded basic cable prices increased by 3.7 percent for the 12 months ending January 1, 2010, and at a compound average annual rate of 6.1 percent over the 15-year period from 1995-2010. This compares to a 2.5 percent increase in general inflation as measured by the CPI (All Items) for the same one-year period, and a 2.5 percent compound average for the CPI over the 15-year period. Compared to the average price cable operators charged in noncompetitive communities, prices on January 1, 2010 were nine percent lower for rival operators and one percent lower for the incumbents in communities with at least two cable operators. Prices were two percent higher in the areas where effective competition findings were granted based on the existence of a DBS market share exceeding the 15 percent threshold established by the statute, and also where such findings were based on other factors. On a per channel basis, the average price per channel (programming price divided by number of channels) of expanded basic service has grown by 0.6 percent on an annual basis over the last 15 years. The price per channel averages 12 percent lower in effective competition communities overall compared to prices in noncompetitive communities, and 31 percent lower in the subgroup of rival operators where there are at least two cable operators, reflecting that cable operators in effective competition communities carry more channels on expanded basic than operators in noncompetitive communities.

**V. ORDERING CLAUSE**

27. IT IS ORDERED that this Report be issued pursuant to authority contained in Section 623(k) of the Communications Act of 1934, as amended, 47 U.S.C. § 543(k).

FEDERAL COMMUNICATIONS COMMISSION

William T. Lake  
Chief, Media Bureau



<b>Attachment 1 2010 Survey Sample Groups</b>				
<b>Sample Groups and Subgroups</b>	<b>Number of Cable Communities*</b>	<b>Percent of National Subscribers</b>	<b>Sample Size</b>	<b>Sample Responses</b>
<b>Noncompetitive Group</b> (No finding of effective competition)	26,722	67.16%	528	513
<b>Effective Competition Group</b> (Operator has finding of effective competition)	7,308	32.84%	272	271
<b>Overall</b> (sum of above)	34,030	100%	800	784
<b>Noncompetitive Subgroups</b> Stratified by subscriber size of cable system				
<b>Very large</b> (exceeds 75,000)	6,917	29.91%	194	192
<b>Large</b> (25,001 - 75,000)	5,189	17.23%	126	124
<b>Medium</b> (10,001 - 25,000)	4,587	9.44%	87	83
<b>Small</b> (1,001 - 10,000)	6,393	9.01%	102	98
<b>Very small</b> (1,000 or fewer)	3,636	1.56%	19	16
<b>Effective Competitive Subgroups</b> Stratified on the basis of the finding				
<b>Presence of 2nd Cable Operator: Incumbent</b>	538	6.99%	55	55
<b>Presence of 2nd Cable Operator: Rival</b>	476	1.47%	54	53
<b>Finding made on basis of DBS market share</b>	5,133	21.56%	147	147
<b>Other basis**</b>	1,161	2.82%	16	16

\* The Commission assigns a unique community unit identifier to each cable operator for each community which the operator serves.

\*\* Consisting of findings associated with competition between a cable operator and a wireless MVPD, and cable operators who met the market low penetration test as a result of serving less than 30 percent of the market.

Sources: FCC Form 322, *Cable Community Registration*, 47 C.F.R. § 76.1801; FCC Form 325, *Annual Cable Operator Report*, 47 C.F.R. § 76.403; and Commission findings pursuant to 47 U.S.C. §543(a)(2).

<b>Attachment 2 Price Averages January 1, 2010</b>								
Cable Programming Service	Overall Average	Non Competitive	Effective Competition Subgroups					
			Group	Second Cable Operator			DBS	Other
				Incumbent	Rival	Both		
<b>PRICE</b>								
<b>Basic Service</b>	\$17.93	\$17.97	\$17.84	\$16.39	\$15.94	\$16.31	\$17.99	\$21.20
Standard Error	0.22	0.30	0.26	0.32	0.60	0.29	0.37	0.78
<b>Prior Year</b>	\$17.00	\$17.19	\$16.62	\$15.36	\$16.35	\$15.53	\$16.73	\$19.22
Standard Error	0.21	0.29	0.26	0.28	0.97	0.29	0.36	0.82
<b>Expanded Basic Service</b>	\$54.44	\$54.27	\$54.77	\$53.93	\$49.51	\$53.18	\$55.28	\$55.60
Standard Error	0.23	0.30	0.35	0.64	0.47	0.54	0.48	0.98
<b>Prior Year</b>	\$52.49	\$52.57	\$52.34	\$51.04	\$48.38	\$50.59	\$53.05	\$52.13
Standard Error	0.22	0.29	0.34	0.67	0.32	0.56	0.45	0.79
<b>Next Most Popular</b>	\$66.75	\$66.99	\$66.28	\$65.62	\$62.11	\$65.02	\$66.44	\$68.83
Standard Error	0.31	0.38	0.54	0.77	0.96	0.66	0.75	1.63
<b>Prior Year</b>	\$64.59	\$65.14	\$63.57	\$62.12	\$61.13	\$61.95	\$64.16	\$63.84
Standard Error	0.31	0.37	0.53	0.85	0.75	0.72	0.73	1.32
<b>PRICE PER CHANNEL</b>								
<b>Expanded Basic Service</b>	\$0.560	\$0.583	\$0.512	\$0.497	\$0.402	\$0.481	\$0.523	\$0.518
Standard Error	0.008	0.009	0.013	0.015	0.030	0.014	0.019	0.022
<b>Prior Year</b>	\$0.604	\$0.621	\$0.569	\$0.532	\$0.395	\$0.509	\$0.592	\$0.565
Standard Error	0.007	0.008	0.012	0.016	0.027	0.014	0.017	0.023

Source: Survey. Averages are subscriber weighted.

<b>Attachment 3 Channel Averages January 1, 2010</b>								
<b>Cable Programming Service</b>	<b>Overall Average</b>	<b>Non Compet- itive</b>	<b>Effective Competition Subgroups</b>					
			<b>Group</b>	<b>Second Cable Operator</b>			<b>DBS</b>	<b>Other</b>
				<b>Incumbent</b>	<b>Rival</b>	<b>Both</b>		
<b>Basic Service</b>	41.0	37.4	48.1	49.9	42.9	48.7	48.5	43.6
Standard Error	0.6	0.7	1.1	1.7	2.5	1.5	1.5	2.8
<b>Prior Year</b>	36.9	34.1	42.3	43.9	45.5	44.2	41.9	40.1
Standard Error	0.5	0.7	0.9	1.3	3.2	1.2	1.2	2.0
<b>Expanded Basic Service</b>	117.0	111.6	127.8	128.6	183.6	138.0	125.4	115.5
Standard Error	1.3	1.6	1.9	3.6	10.3	3.5	2.5	5.3
<b>Prior Year</b>	101.6	98.3	108.2	113.7	172.9	123.7	103.4	98.1
Standard Error	1.0	1.4	1.5	3.1	8.9	3.0	1.8	3.9
<b>Next Most Popular Service</b>	189.1	180.1	206.3	212.5	227.3	215.1	203.9	198.6
Standard Error	1.8	2.3	3.1	4.2	8.5	3.8	4.2	11.2
<b>Prior Year</b>	163.8	159.1	172.6	180.7	211.3	185.9	168.5	164.7
Standard Error	1.4	1.8	2.1	3.7	7.0	3.3	2.7	8.1
<b>All Services</b>	340.4	310.2	400.9	433.1	465.7	438.7	391.1	363.9
Standard Error	3.5	4.5	5.7	9.6	22.7	8.8	7.4	20.9
<b>Prior Year</b>	302.5	279.2	348.7	385.0	431.8	392.9	335.2	318.7
Standard Error	3.0	3.9	4.4	7.3	21.4	7.1	5.8	13.5

Source: Survey. Averages are subscriber weighted.

**Attachment 4**  
**Historical Averages**  
1995-2010\*

Date	Basic Service Price	Expanded Basic Service								Next Most Popular Service & Equipment	CPI	
		Price		Channels		Price Per Channel					All Items	Cable
		Price	Index	Series**		Index	Series**		Index			
				1	2		1	2				
1995	---	\$22.35	100.0	44.0		100.0	\$0.60		100.0	---	100.0	100.0
1996	---	\$24.28	108.6	47.0		106.8	\$0.61		101.7	---	103.0	106.9
1997	---	\$26.31	117.7	49.4		112.3	\$0.63		105.0	---	105.2	114.9
1998	\$12.06	\$27.88	124.7	50.1		113.9	\$0.65		108.3	\$38.58	107.0	122.6
1999	\$12.58	\$28.94	129.5	51.1		116.1	\$0.65		108.3	\$38.43	109.3	127.0
2000	\$12.84	\$31.22	139.7	54.8		124.5	\$0.66		110.0	\$39.64	113.3	132.9
2001	\$12.84	\$33.75	151.0	59.4		135.0	\$0.60		100.0	\$45.33	116.4	139.1
2002	\$14.45	\$36.47	163.2	62.7		142.5	\$0.66		110.0	\$46.59	118.1	147.8
2003	\$13.45	\$38.95	174.3	67.5		153.4	\$0.65		108.3	\$49.03	120.9	154.7
2004	\$13.80	\$41.04	183.6	70.3		159.8	\$0.66		110.0	\$51.76	123.2	160.7
2005	\$14.30	\$43.04	192.6	70.5		160.2	\$0.62		103.3	\$56.03	126.9	167.0
2006	\$14.59	\$45.26	202.5	71.0		161.4	\$0.65		108.3	\$59.09	131.9	171.8
2007	\$15.33	\$47.27	211.5	72.6		165.0	\$0.67		111.7	\$60.27	134.7	176.4
2008	\$16.11	\$49.65	222.1	72.8		165.5	\$0.68		113.3	\$63.66	140.4	181.1
2009	\$17.65	\$52.37	234.3	78.2	101.6	177.7	\$0.71	\$0.60	118.3	\$67.92	140.5	183.7
2010	\$17.93	\$54.44	243.6		117.0	204.6		\$0.56	109.7	\$71.39	144.2	189.1
Total and Average Annual Change												
Total	---	144%	144%	---	---	105%	---	---	10%	---	44%	89%
Annual	3.4%	6.1%	6.1%	---	---	4.9%	---	---	0.6%	5.3%	2.5%	4.3%

Sources: *Statistical Report on Average Rates for Basic Service, Cable Programming Service, and Equipment*, 612 FCC Rcd 3239 (1997) (1997 survey); 1998: 14 FCC Rcd 8331 (1999) (1998 survey); 1999: 15 FCC Rcd 10927 (2000) (1999 survey); 2000: 16 FCC Rcd 4346 (2001) (2000 survey); 2002: 17 FCC Rcd 6301 (2002) (2001 survey); 2002: 18 FCC Rcd 13284 (2003) (2002 survey); 2003-04: 20 FCC Rcd 2718 (2005) (2004 survey); 2005: 21 FCC Rcd 15087 (2006) (2005 survey); 2006-08: 24 FCC Rcd 259 (2009) (2006-08 survey); 2009: 25 FCC Rcd 13350 (2010) (2009 survey); and 2010 survey. *Bureau of Labor Statistics, Dept. of Labor, Consumer Price Index, All Urban Consumers, U.S. City Average, Not Seasonally Adjusted*, Series CUUR0000SA0, All Items (1982-84=100); Series CUUR0000SERA02, Cable and Satellite Television and Radio Service (Dec. 1983=100). DATA.BLS.GOV/Time Series. Accessed 11 AUG 2011. Rebased to Jul. 1995=100.

\* 1995-2002 averages are for July and afterwards for January of the year and are subscriber-weighted averages of the noncompetitive and effective competition groups, except 1995-2000 prices and 2000-01 channels, which represent the noncompetitive group, because composites were unreported. 2009 averages are from the 2009 survey and may not match the 2009 average from the 2010 survey, as reported in other tables, due to the random sampling variance which occurs between samples. Missing data indicate we did not survey the metric that year. 1995 price is the bundled programming and equipment minus an estimate of the equipment portion. Before 2010, the next most popular service price is the sum of the reported expanded basic, digital programming, and equipment prices.

\*\* Series 1 represents the channels and price per channel data collected from 1995-2009. The 2010 price survey collected data on a more expansive set of cable channels for 2009 and 2010. We created an index for channels and price per channel which represents the cumulative percent change from 1995 to 2010. The 2010 index value reflects the 2009 to 2010 Series 2 change. See methodology Appendix, Section C at 8.

Attachment 5 Historical Averages By Sample Group										
Year	Noncompetitive Group					Competitive Group				
	Basic Service Price	Expanded Basic Service				Basic Service Price	Expanded Basic Service			
		Price	Number of Channels				Price	Number of Channels		
			Series 1	Series 2	Index			Series 1	Series 2	Index
1995	---	\$22.35	44.0		100.0	---	\$21.64	38.0		100.0
1996	---	\$24.28	47.0		106.8	---	\$23.32	39.6		104.2
1997	---	\$26.31	49.4		112.3	---	\$25.29	46.5		122.4
1998	\$12.06	\$27.88	50.1		113.9	\$11.12	\$26.12	54.0		142.1
1999	\$12.58	\$28.94	51.1		116.1	\$12.03	\$27.30	52.3		137.6
2000	\$12.84	\$31.22	54.8		124.5	\$12.03	\$29.44	59.9		157.6
2001	\$12.87	\$33.89	59.3		134.8	\$12.43	\$31.66	60.9		160.3
2002	\$14.47	\$36.61	62.7		142.5	\$14.09	\$34.34	62.9		165.5
2003	\$13.38	\$39.11	67.3		153.0	\$14.25	\$36.86	69.7		183.4
2004	\$13.73	\$41.29	70.1		159.3	\$14.58	\$38.17	72.5		190.8
2005	\$14.25	\$43.33	70.3		159.8	\$14.80	\$40.15	72.0		189.5
2006	\$14.52	\$45.48	70.6		160.5	\$15.09	\$43.70	74.0		194.7
2007	\$15.10	\$47.49	72.5		164.8	\$16.37	\$46.28	73.0		192.1
2008	\$15.83	\$49.97	72.8		165.5	\$17.37	\$48.19	73.0		192.1
2009	\$17.88	\$52.10	77.7	98.3	176.6	\$17.16	\$52.96	79.3	108.2	208.7
2010	\$17.97	\$54.27	---	111.6	200.5	\$17.84	\$54.77	---	127.8	246.5
Total and Average Annual Change										
Total	---	143%	---	---	101%	---	153%	---	---	147%
Annual	3.4%	6.1%	---	---	4.7%	4.0%	6.4%	---	---	6.2%

Sources and notes: See Attachment 4, *supra*.

<b>Attachment 6</b>								
<b>Monthly Price of Programming and Customer Premises Equipment</b>								
January 1, 2010								
Cable Programming Service	Overall Average	Non Competitive	Effective Competition Subgroups					
			Group	Second Cable Operator			DBS	Other
				Incumbent	Rival	Both		
<b>Programming *</b>								
<b>Basic service</b>	\$17.93	\$17.97	\$17.84	\$16.39	\$15.94	\$16.31	\$17.99	\$21.20
Annual change	5.5%	4.6%	7.3%	6.7%	-2.5%	5.0%	7.5%	10.3%
<b>Expanded basic</b>	\$54.44	\$54.27	\$54.77	\$53.93	\$49.51	\$53.18	\$55.28	\$55.60
Annual change	3.7%	3.2%	4.6%	5.7%	2.3%	5.1%	4.2%	6.7%
<b>Next most popular</b>	\$66.75	\$66.99	\$66.28	\$65.62	\$62.11	\$65.02	\$66.44	\$68.83
Annual change	3.3%	2.8%	4.3%	5.6%	1.6%	5.0%	3.6%	7.8%
<b>Percent of Operators Whose Programming Price Includes Customer Premises Equipment, by Service</b>								
<b>Basic Service</b>	4%	7%	0%	0%	3%	0%	0%	0%
<b>Expanded Basic</b>	35%	36%	31%	7%	4%	7%	39%	44%
<b>Next most popular</b>	33%	33%	34%	8%	17%	9%	39%	69%
<b>Programming and Equipment **</b>								
<b>Basic service</b>	\$21.49	\$21.20	\$22.06	\$21.62	\$20.24	\$21.38	\$21.95	\$24.97
Annual change	4.8%	4.0%	6.5%	6.4%	-4.9%	4.4%	6.5%	11.9%
<b>Expanded basic</b>	\$58.06	\$57.59	\$58.99	\$59.26	\$55.00	\$58.54	\$59.28	\$58.13
Annual change	3.4%	2.9%	4.3%	5.6%	1.9%	5.0%	3.8%	7.1%
<b>Next most popular</b>	\$71.39	\$71.58	\$71.03	\$72.12	\$69.89	\$71.74	\$70.82	\$70.48
Annual change	3.3%	2.8%	4.1%	5.5%	1.4%	4.8%	3.4%	8.1%

Source: Survey.

\* These prices are also reported in Attachment 2 and Table 1.

\*\* If the programming price does not already include equipment, this measure adds to the programming price, the monthly price for consumers to lease the most commonly leased digital converter or other digital gateway.

## APPENDIX

## Survey Methodology

## A. Sampling Procedure

1. The 2010 survey was conducted pursuant to the requirements of the Cable Act.<sup>1</sup> Communities were selected nationwide at random to be part of the sample and were chosen from the Commission's list of MVPD operators and communities the operators serve.<sup>2</sup> For the purpose of choosing our sample, we divided the communities into two groups. Noncompetitive communities were those where the Commission had not made a finding of effective competition as of January 1, 2010. Effective competition communities were those where the Commission had made such a finding. Further, we subdivided the two groups into strata, and selected a sample of communities from each stratum. For each community selected, we asked the operator in that community to complete a survey questionnaire that included questions on the prices charged for video programming service offerings as well as other questions related to the operator's system. We used the information collected to estimate and compare mean prices, and other statistics, across the different strata of operators and communities. Attachment 1 provides additional information on the sample.

2. We divided the groups into strata to compare subgroups as well as to achieve desirable levels of statistical precision. Creating strata in which prices are less disparate than in the group overall tends to increase the efficiency of sampling by reducing sample price variance.<sup>3</sup> Because there is a correlation between price and the operator's system size, we stratified noncompetitive communities into five strata by system size – very large, large, medium, small, and very small systems – depending on the number of subscribers the system serves. We stratified the effective competition cable operators and communities into four strata on the basis for which the Commission had made a finding of effective competition. The first stratum consisted of incumbent cable operators in communities with a second rival operator. The second stratum consisted of the rival operators. The third stratum consisted of communities where the finding of effective competition was based on the level of DBS subscribers in that community. The fourth stratum consisted of communities within range of a wireless MVPD or who met the cable low penetration test as a result of serving fewer than 30 percent of households in that community.<sup>4</sup> The survey collected prices charged by wireline operators. The survey did not collect prices charged by DBS and wireless MVPD operators.<sup>5</sup>

3. We determined the number of observations to select for statistical precision to be 800 communities. These 800 selections were divided between the two sampling groups. To determine the number to allocate in each group, we used a sampling size formula calibrated to yield sample price means within one percent of actual price means at a 95 percent confidence level.<sup>6</sup> We then allocated the number

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<sup>1</sup> See note 1, Section I, *supra*.

<sup>2</sup> The Commission assigns a community unit identifier (CUID) code to each registered operator for each community that operator serves. See 47 C.F.R. § 76.1801. If two operators serve the same community, the Commission assigns two CUIDs. A current list is downloadable from the Commission's website. See FCC Media Bureau, *All Cable Communities registered with the FCC*, <[www.fcc.gov/mb](http://www.fcc.gov/mb)>.

<sup>3</sup> See e.g., W. G. Cochran, *Sampling Techniques*, 2nd ed. (1977) at 87-107.

<sup>4</sup> Low market penetration may have resulted from the presence of a second operator in the community. However, we did not include the second operators in this low penetration stratum, because the finding of effective competition was not made on that basis.

<sup>5</sup> This is because there are no CUID codes associated with DBS or wireless operators. For the same reason, AT&T U-verse service was not surveyed.

<sup>6</sup> See B. J. Mandel, *Statistics for Management* (1984) at 258. See also, e.g., C. A. Boneau, *Effects of Violations of Assumptions Underlying the t test*, *Psychological Bulletin*, 57 (1960) at 49-54.

of selections in each group among the group's strata. Allocation methods generally emphasize two criteria; selections allocated to a stratum increase relative to other strata in proportion to population size and price variance. Thus, for each stratum, we multiplied its share of the group's cable subscribers by the standard deviation of price.<sup>7</sup> A higher measure relative to the other strata resulted in a relatively higher allocation. Further, we adjusted each allocation by a non-response factor.<sup>8</sup> After completing this process, 42 of the 800 overall selections remained to be allocated. We assigned these 42 observations among the incumbent and rival subgroups since these strata were of particular interest to survey, yet had been allocated relatively few selections. Attachment 1 reports the sample sizes for all strata.

4. After determining the number of sample selections using the process described above, we drew independent samples of communities from the strata,<sup>9</sup> using probability proportional to size (PPS) sampling without replacement.<sup>10</sup> A PPS design is efficient for our survey because the relative size of a community in terms of the number of subscribers is correlated with our primary survey study variable (price).<sup>11</sup> Using the PPS method of sampling, we assigned a selection probability to each community in direct proportion to the relative number of subscribers. In a group and stratum, the higher the level of subscribers relative to other communities in the strata, the higher the likelihood was of selection. PPS sampling requires sampling selection probability not to exceed one (or 100 percent). Therefore, we sub-stratified communities whose probability exceeded one into one-unit strata with probability equal to one.<sup>12</sup> The PPS sample design requires an estimate of the relative number of subscribers in each community. We estimated the relative sizes using the FCC's 1994 census of communities, the most recent census of subscribers at the community level. If the service areas of two communities merged subsequent to the census, we merged the subscriber counts accordingly. For newly registered communities, not part of the census, we set the subscriber counts equal to the mean number of subscribers for the municipality types, *i.e.*, an incorporated city, private settlement, *etc.*

#### **B. Data Quality Control**

5. To improve the quality of the survey data and reduce the burden on operators, the survey

<sup>7</sup> See G. W. Snedecor and W. G. Cochran, *Statistical Methods*, 7th ed. (1980) at 458-59. The allocation formula equals  $N_h S_h / \sum N_h S_h$ , where in stratum  $h$ ,  $N$  is the number of cable subscribers on January 1, 2010 and  $S$  is the finite population adjusted standard deviation of price in the 2009 survey. (Snedecor and Cochran).

<sup>8</sup> Because previous surveys suggest not all selections will respond to the survey questionnaire for various reasons -- *e.g.*, the system no longer operates -- the non-response factor adjusts selections by the expected number of non-responses. Our non-response factor equals  $[1 + [NR_h / (NR_h + R_h)]]$ , where in stratum  $h$ ,  $NR$  equals the number of non-responses and  $R$  equals responses to our 2009 survey.

<sup>9</sup> To prevent sampling bias, the samples are drawn independently, including incumbents and rivals in locations with a second cable operator; *i.e.*, selection of an incumbent did not necessarily require that the rival would be selected and *vice versa*.

<sup>10</sup> This sample was generated using the SurveySelect Procedure, PPS Method without Replacement, SAS software, Version SAS/STAT 9.2, SAS Institute Inc., Cary, NC (2010). (SAS Institute Inc.).

<sup>11</sup> See, *e.g.*, F. Yates and P. M. Grundy, "Selection without Replacement from Within Strata with Probability Proportional to Size," *Journal of the Royal Statistical Society*, 15 (1953) at 253-261; and B. K. Som, *Practical Sampling Techniques*, 2nd ed. (1996).

<sup>12</sup> We applied the following algorithm to identify, remove, and sub-stratify community units whose selection probability exceeded one in a stratum, where  $Z$  = number of subscribers in the stratum,  $z_i$  = subscribers in community unit  $i$ ,  $n$  = sample size,  $\pi_i = n(z_i/Z)$  = selection probability of unit  $i$ ,  $k$  = number of units for which  $P_i$  is greater than one: (a) Sub-stratify the unit with the highest  $P_{h,i}$  which exceeds one; (b) reduce sample size to  $n_h$  minus one; (c) reduce,  $k_h$  by one; (d) recalculate  $P_{h,i}$  for the remaining units; and (e) repeat steps a-d until  $k_h=0$ . An alternative would be to set maximum  $P_{h,i}=1$  and not sub-stratify; however, to a degree,  $P_{h,i}$  would no longer be proportionate to subscribers.



questionnaire is web-based.<sup>13</sup> After the samples were drawn, operators serving the communities selected were notified and instructed on how to complete the survey questionnaire on the Commission's website. Steps were taken to ensure the reliability and accuracy of the data collection. Computer programming checks notified respondents in real time of inconsistent answers. In addition, we asked a responsible party within each company (other than the person who completed the survey) to certify the completeness and accuracy of the company's responses. The survey response rate (the ratio of completed to requested questionnaires) equaled 98 percent (784 of 800). Of the 16 non-responses, 14 operators no longer provided cable service to the community and two operators had yet to commence service.

6. We systematically examined all questionnaires submitted using a computer program designed to identify answers which appeared to be inaccurate. When a particular response fell outside of its expected reasonable range or was inconsistent with the answers to other questions in the survey, the computer program automatically flagged that response and we contacted the operator and asked that operator to re-check and verify the flagged answer, or make a correction if needed. In all cases, the operators we contacted cooperated with these requests and, where necessary, submitted revised data. About one-third of the operators in the sample were asked to review at least one answer. Each of these operators replied with either a data correction or reasonable explanation as to why a particular response was plausible. In the case of missing data, some operators provided these data and others explained that the operating company did not collect the particular information.

### C. Estimation of Means

7. After the responses were collected and checked, estimates of the population means and variances were calculated from the samples based on the response to each survey question. We estimated the means and variances on a basic subscriber basis rather than a cable community basis. We choose this level of analysis because we are interested in understanding the price paid by the average subscriber rather than the price charged in the average community. These two methods of analysis yield different results when the number of subscribers in a community is correlated with the response. To estimate the per-subscriber means and variances of those means, we use the Horvitz-Thompson ratio estimator.<sup>14</sup> This estimator is a well-known, unbiased method of estimation applicable to probability sampling designs. The Horvitz-Thompson estimator estimates the ratio of two totals.<sup>15</sup> By appropriately selecting those totals we are able to weight the response from each cable community by the number of subscribers and estimate the per-subscriber mean of the responses. The numerator of our ratio estimator is the estimate of the industry total of the value of the response of the cable community multiplied by the number of basic subscribers in the community. The denominator is the estimate of the industry total of basic subscribers. For example, in estimating the mean basic price the numerator is the estimate of the industry total of the basic price in the community multiplied by the number of basic subscribers in the community. This resulting total is an estimate of total revenues from the purchase of basic service. The denominator is simply the estimate of the total basic subscribers. The resulting product is an estimate of basic service revenue per subscriber. Formally, the estimator of the per basic subscriber mean of variable X is

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<sup>13</sup> Our web-based questionnaire includes several features which ease the respondent's filing burden. For example, the questionnaire pre-fills some survey questions based on information already on file with the Commission, and asks the respondent to verify the information.

<sup>14</sup> We began using the Horvitz-Thompson ratio estimator with the 2009 report. Prior to the 2009 report, we calculated the arithmetic mean in each stratum.

<sup>15</sup> See, e.g., D. G. Horvitz and D. J. Thompson, "A Generalization of Sampling without Replacement from a Finite Universe," *Journal of the American Statistical Association*, 47 (1952) at 663-685; W. S. Overton and S. V. Stehman, "The Horvitz-Thompson Theorem as a Unifying Perspective for Probability Sampling: With Examples from Natural Resource Sampling," *The American Statistician*, 49(3) (1995); and Cochran (1977) at 259.

$$\frac{\sum_{i=1}^N \frac{1}{\pi_i} X_i \cdot Sub_i}{\sum_{i=1}^N \frac{1}{\pi_i} Sub_i}$$

where  $X_i$  is the response from cable community  $i$ ,  $Sub_i$  is the number of basic subscribers in community  $i$ , and  $\pi_i$  is the probability of community  $i$  being selected into the sample.<sup>16</sup>

8. For expanded basic service, we report the overall mean as reported in previous survey reports, and we also report time-series indices of the cumulative percent change in price, number of channels, and price per channel. There are two data series each for channels and price per channel. The 2010 price survey collected data on a more expansive set of cable channels for 2009 and 2010. As shown in Attachments 4 and 5, both the 2009 and 2010 value for Series 2 are from the 2010 survey and the 2010 index value reflects the 2009 to 2010 change in Series 2. The data in series 1 is from prior surveys and forms the basis of the 1995-2009 index values. The index, in effect, links the percent changes of the two series by re-basing the newer series (Series 2) which began in 2010 to index base year 1995. For variable  $X$ , the index value ( $I$ ) of mean ( $\bar{X}$ ) in time series ( $s$ ) in year ( $t$ ) is

$$I_t = I_{t-1}(\bar{X}_{s,t} / \bar{X}_{s,t-1})$$

where  $I_t = 100$  in base year 1995 and the time series ( $s$ ) is 1 ( $s=1$ ) if  $t < 2010$ , and  $s=2$  if  $t \geq 2010$ . The mean price per channel of expanded basic service in a community ( $i$ ) is

$$\bar{X}_{i,t} = ((P_{i,t} + E_{i,t}) / C_{i,t})$$

where  $P_{i,t}$  is programming price,  $E_{i,t}$  is equipment price, and  $C_{i,t}$  is the number of channels. Equipment refers to the most commonly leased set-top converter or other digital gateway leased with expanded basic service. The equipment price is zero if equipment is pre-bundled into the programming price or if it is unnecessary to view any of the expanded basic channels.

#### D. Survey Accuracy

9. Because our survey is based on a sample of communities rather than a 100 percent census, the price averages in this report are subject to sampling variance. Expanding the survey to include all communities might increase accuracy, but would also increase the burden of collecting the information. Our sample results are likely to be different from results that would be obtained if we were able to collect prices from all communities nationwide. The attachments report estimates of sampling variance or statistical “standard error” for each price mean. Standard errors can be used to express the degree of confidence that the true mean falls within a range around a sample mean. This is usually expressed as assurance that in 95 out of 100 similar samples, the true mean will fall within the stated range (the “95 percent confidence interval”).<sup>17</sup> Standard errors can also identify whether or not price differences are statistically significant at a 95-percent confidence level. The discussion above refers to within-sample variance. To prevent random variance which may occur across samples when measuring annual percentage change, the survey collected two years of data rather than comparing estimates over two different surveys. The exception is the historical time series table which reports means from each survey year.

<sup>16</sup> We generated tests of differences in the mean values of the sample groups and subgroups by using the SMSUB macro algorithm and the Ratio and Contrast parameters, SAS Institute Inc. (2010).

<sup>17</sup> This “95 percent confidence interval” is a range surrounding the sample average plus or minus 1.96 multiplied by the standard error.

10. In addition to the sampling variance discussed above, changes in the composition of sample subgroups affect means.<sup>18</sup> The composition of communities making up the subgroups changes from year to year as a result of operators starting, ceasing, merging, or transferring operations. Further, the composition changes as a result of findings of effective competition and, therefore, migration of operators in the communities from the noncompetitive group to one of the effective competition subgroups.

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<sup>18</sup> See, e.g., D. Holt and C. J. Skinner, *Components of Change in Repeated Surveys*, *International Statistical Review*, 57 (1989) at 1-18.