

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:

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I. 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),¹ requires the Commission to publish annually a statistical report on the average rates that cable operators² charge for “basic cable service, other cable programming,” and cable equipment.³ 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.⁴ This Report fulfills those statutory directives and presents key findings for the 12 months ending January 1, 2012.⁵

¹ 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).

² 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 that 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 (CUID). The Commission assigns a CUID code to each registered operator for each community that operator serves. See 47 C.F.R. § 76.1801.

³ 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).

⁴ 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, including direct broadcast satellite (DBS) operators, 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. § 76.916(a). As required by statute, the Commission does not take into consideration those communities that have not been formally adjudged as being subject to effective competition. See 47 U.S.C. § 543(k)(1). Some communities, however, may in fact face market competition sufficient to warrant a finding of effective competition but the incumbent cable operator, for various reasons, has not petitioned the Commission for an effective competition finding, or, if a petition was filed, it may be pending or may have been granted after the cut-off date for our survey. For reasons discussed in paragraph 8, *infra*, there may be a significant number of these communities included in our noncompetitive sample, which could affect the results of our report. However, because we do not know which of the noncompetitive communities in our sample actually face effective competition, we are unable to estimate any potential impact on our findings.

⁵ 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).

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 4.8 percent over the 12 months ending January 1, 2012, to \$61.63, compared to an annual increase of 2.9 percent in the Consumer Price Index (CPI). The price of expanded basic service has increased at a compound average annual growth rate of 6.1 percent during the period 1995-2012. The CPI increased at a compound average annual growth rate of 2.4 percent over the same period. However, the price per channel (price divided by number of channels) for subscribers purchasing expanded basic service decreased by 0.4 percent over the 12 months ending January 1, 2012, to 51 cents per channel. Over the 17 years from 1995-2012, the increase in price per channel was less than 1 percent per year (0.2 percent) on an annual basis.⁶

3. *Average prices in communities with a finding of effective competition compared with prices in noncompetitive communities.* Over the 12 months ending January 1, 2012, the average price of expanded basic service increased by 4.3 percent, to \$60.99, for those operators serving communities for which no effective competition finding was made as of January 1, 2012 (noncompetitive communities). For the effective competition communities, the average price of expanded basic increased by 5.3 percent, to \$62.49. Over this period, price per channel increased slightly, by 0.2 percent, in noncompetitive communities, to 52 cents per channel, and decreased by 1.4 percent in effective competition communities, to 49 cents per channel. The price per channel is 6.1 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 operators in noncompetitive communities.

4. As noted, the price of expanded basic service averaged across all effective competition communities was higher than the price of expanded basic service averaged across noncompetitive communities. The difference is statistically significant. The two previous surveys also found that the price of expanded basic service in effective competition communities was higher than the price of expanded basic in noncompetitive communities. Prior to that, surveys found that effective competition communities in general had lower prices.⁷ As discussed further in Section III, several factors contributed to this change of trend, including an increase in the number of communities where there has been a finding of effective competition based on the DBS market share.

5. We next compare the expanded basic price in effective competition communities overall (\$62.49) to subgroups of communities, as of January 1, 2012. Prices on average were 1.4 percent lower than that average (\$61.64) for incumbent cable operators in communities with a rival operator; less than one percent lower (\$62.28) for the rival operators; 0.4 percent higher (\$62.76) when a finding was granted based on the DBS market share meeting the 15 percent threshold established by the statute; and 0.4 percent higher (\$62.71) 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 To calculate 2011-2012 price changes, the survey sampled two years of data, rather than using the 2011 price from the prior (2011) survey, so as not to introduce random sampling variance. For further explanation, *See* Appendix, paragraph 9. Table 1 reports the 2012 price and annual change based on the 2012 survey. Table 3 reports the historical price series based on price data from that survey year.

⁷ *See* Attachment 7 for citation to previous survey reports. As noted, the effective competition average price for expanded basic service exceeded the noncompetitive average price for the first time in the 2009 survey.

II. OVERVIEW OF THE SURVEY

6. The information and analysis provided in this Report are based on the Commission's 2012 survey of cable industry prices (survey).⁸ 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).

7. We surveyed operators serving 485 out of the 24,487 noncompetitive communities and 315 out of the 9,464 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.⁹ 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 on low subscriber penetration.

8. Our list of effective competition communities 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 either no cable operator has petitioned the Commission to make a finding of effective competition, or a petition has been filed with the Commission but not granted as of the date our sample was drawn.¹⁰ We note that, due to the emergence of competing providers like Verizon, AT&T, WideOpenWest (WOW!) other wireline competing providers, and DBS service (which is available nationwide and has a national penetration rate greater than 15 percent on average) there may be many areas of the country where a competing provider exceeds the 15 percent threshold set forth in the 50/15 test for effective competition but the incumbent cable operator has not petitioned the Commission for a finding of effective competition.

9. The nationwide availability of DIRECTV and DISH Network DBS services suggest that a comparison of those companies' prices and channels to cable provider offerings could be informative as part of this Report. Therefore, we compare herein the national average price, number of channels and price per channel for cable's expanded basic service package to comparable packages offered by DIRECTV (Choice) and DISH Network (America's Top 120 Plus). As of January 1, 2012, the average expanded basic cable price (\$61.63) was higher than both DIRECTV (\$60.99) and DISH Network (\$49.99). DIRECTV offered the greatest number of channels (182 compared to cable's 150), and had a significantly lower price per channel than the cable average (34 cents compared to 51 cents). Compared to the average cable provider, DISH Network offered fewer channels (142), and had a significantly lower price per channel (35 cents). Additional details are provided in Attachment 9.

10. *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

⁸ The Commission directed a randomly selected sample of cable operators to respond to a survey questionnaire that requested data primarily as of January 1, 2011 and January 1, 2012. 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*, 27 FCC Rcd 5782 (2012).

⁹ See 47 U.S.C. § 543(a)(2).

¹⁰ See, 47 U.S.C. § 543(k).

finding.¹¹ 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. We also report the weighted average of both the incumbent and rival operators (Both). 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 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 competition findings associated with a wireless MVPD to date 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.

11. 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 channels¹²; 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.¹³ 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, 2012, 85 percent of subscribers took at least expanded basic service, and 15 percent took basic service only.¹⁴ In addition, 48 percent of subscribers on average took the next most popular programming service. Survey respondents reported prices as of January 1, 2011 and January 1, 2012, permitting us to

¹¹ These subgroups are designed to achieve desirable levels of statistical precision, and, thus, are not grouped according to the four statutory tests for effective competition under Section 623(l) of the Cable Act. See Attachment 1 and the Appendix, Section A, for a more complete description of our sampling methodology.

¹² See, e.g., 47 U.S.C. § 543(b)(7).

¹³ See, e.g., 47 U.S.C. § 543(b)(7).

¹⁴ 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 tier of cable programming service, *i.e.*, an offering that includes both the basic service tier and other cable programming. See 47 U.S.C. § 543(k). When an operator offers both a basic service tier and a separate expanded basic service tier, we refer to the basic service, for purposes of this survey, as "limited basic." Survey results indicate that less than three percent of subscribers receive basic service from operators that do not also offer a separate expanded basic service, *i.e.*, from operators that do not offer a "limited basic" service.

calculate the annual percentage changes for the year ending January 1, 2012. We calculated averages for each survey question by subgroup, by the larger sample groups, and for communities overall.

12. *Accuracy and Reliability Review.* We take a number of steps to ensure the accuracy and reliability of the data upon which this report is based. 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 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 flags that response and we contact the cable operator and ask that operator to re-check the flagged response and make corrections if needed.¹⁵

III. SURVEY RESULTS

13. For cable operators and communities where the Commission has found effective competition, most of these findings have occurred on the basis of DBS market share. Communities in the DBS subgroup equaled 6,702 for the 2012 survey and accounted for 67 percent of cable subscribers in communities with an effective competition finding, up from 65 percent in the previous survey. There were 733 communities where the incumbent operator was found to face effective competition as a result of the presence of a second operator. Incumbent and rival cable operators in these communities now account for 26 percent of subscribers in communities with an effective competition finding, up from 24 percent in the previous survey. The remaining seven percent of effective competition subscribers were in Other subgroups, either because they were in range of a wireless video operator or because they satisfied the market low penetration test.

¹⁵ 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 2012 survey, we contacted approximately 15 percent of the survey respondents with follow-up inquiries. Each operator replied with a data correction or reasonable explanation of why a particular response was plausible.

A. Cable Programming Services

14. Table 1 reports the average price of basic, expanded basic, and the next most popular service (which we defined for purposes of the survey to include at least seven additional channels) as of January 1, 2012.¹⁶ It also shows the average price per channel for expanded basic service.¹⁷ Further, Table 1 reports the annual percentage change in price for the year ending January 1, 2012, 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 \$20.55 for basic service (6.2 percent increase), \$61.63 for expanded basic service (4.8 percent increase) and \$74.57 for the next most popular service (4.3 percent increase). The price per channel for expanded basic service was 51 cents (0.4 percent decrease) for expanded basic service.

Cable Programming Service	Overall Average	Non-competitive	Effective Competition Group and Subgroups					
			Group Average	Second Cable Operator			DBS	Other
				Incumbent	Rival	Both		
Basic service	\$20.55	\$20.83	\$20.19	\$18.93	\$17.69	\$18.75	\$20.47	\$22.86
Annual change	6.2%*	5.2%	7.5%*	7.6%*	3.6%	7.1%*	7.5%*	8.6%
Expanded basic	\$61.63	\$60.99	\$62.49	\$61.64	\$62.28	\$61.73	\$62.76	\$62.71
Annual change	4.8%*	4.3%*	5.3%*	5.4%*	3.1%	5.1%*	5.4%*	5.6%
Next most popular	\$74.57	\$74.84	\$74.22	\$71.51	\$75.28	\$72.05	\$75.01	\$74.82
Annual change	4.3%*	4.1%*	4.7%*	4.5%*	2.8%	4.3%*	4.8%*	4.4%*
Expanded basic price per channel	\$0.51	\$0.52	\$0.49	\$0.43	\$0.56	\$0.45	\$0.50	\$0.50
Annual change	-0.4%	0.2%	-1.4%	2.4%	-1.5%	1.7%	-2.4%	-1.2%

Source: Attachments 2 and 4. * Indicates a statistically significant annual change in price.

15. Table 2 reports the price differentials between the effective competition subgroups compared to the noncompetitive group. Overall, for expanded basic service, price in the effective competition group is higher by 2.5 percent compared to the noncompetitive group. (An asterisk * indicates a statistically significant differential.) One reason for this overall higher price is that price for expanded basic charged by cable operators in the DBS subgroup is significantly higher, by 2.9 percent,

¹⁶ Except for price per channel, as explained in note 17, *infra*, data in this table does not include prices for customer premises equipment unless the cable operator bundles the programming service and equipment into a single price. Attachment 3 reports the price of programming, including equipment, for all operators. Each operator reported its most commonly leased equipment to be a set-top converter box and remote control. Section III.C, *infra*, reports the percent of equipment that included a specific feature such as high definition.

¹⁷ Price per channel adjusts the expanded basic programming price to incorporate differences in 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 for reception.

than the noncompetitive average.¹⁸ Further, in contrast to increases prior to 2009, expanded basic prices are growing fastest in the effective competition communities, at 5.3 percent over the 12 months ending January 1, 2012, compared to 4.3 percent annual growth in noncompetitive communities (See Table 1). Price per channel however is significantly lower, by 6.1 percent, in the effective competition communities. For the other two services, the average price differentials for basic service (3.0 percent lower) and the next most popular service (0.8 percent lower) are not significantly different from the average price in the noncompetitive group. At the subgroup level, some price differentials for cable services are significantly different. In the Second Cable Operator subgroup, the average price an incumbent offers is significantly lower for basic service and the next most popular service (4.5 percent lower). Rivals offer a 15.0 percent lower basic service price although expanded basic and next most popular service prices are not significantly different from operators in noncompetitive communities. In the Other subgroup, the basic service price is significantly different than for noncompetitive communities. Finally, on a per channel basis for expanded basic service, the price per channel is significantly lower in the effective competition group overall and for incumbents in the second cable operator subgroup reflecting the carriage of more channels in the effective competition group than in the noncompetitive group.

Table 2
Price Differential for Effective Competition
Compared to Noncompetitive Average Price
January 1, 2012

Cable Programming Service	Effective Competition Group	Effective Competition Subgroups				
		Second Cable Operator			DBS	Other
		Incumbent	Rival	Both		
Basic service	-3.0%	-9.1% *	-15.0% *	-10.0% *	-1.7%	9.8% *
Expanded basic	2.5% *	1.1%	2.1%	1.2%	2.9% *	2.8%
Next most popular	-0.8%	-4.5% *	0.6%	-3.7% *	0.2%	0.0%
Expanded basic price per channel	-6.1% *	-17.1% *	7.5%	-13.6% *	-3.6%	-2.7%

Source: Attachments 2 and 4. * Indicates a statistically significant differential.

16. Table 3 shows that the average price of expanded basic service grew at a compound annual rate of 6.1 percent over the 17-year period from 1995-2012, higher than the annual 2012 increase of 4.8 percent shown in Table 1.¹⁹ Over the 17 years, channels offered with expanded basic service grew annually at 5.8 percent, and price per channel grew by less than one percent (0.2 percent) on an annual basis.²⁰ For comparison, the CPI for All Items published by the Bureau of Labor Statistics (BLS) as a

¹⁸ 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*.

¹⁹ The prices in Table 3 in each year are taken from the survey for that year. Because of the random variance of survey samples from year to year, the “starting rate” will not necessarily match the “ending rate” from the prior year’s survey. For example, the 2011 prices in Table 3 were obtained from the sample communities included in the 2011 survey and do not exactly match the 2011 prices reflected in the 2012 survey shown in Attachment 2 because the sample communities included in the 2012 survey may be different than those in the 2011 survey and may have had different 2011 rates. For this same reason, the 2010 prices in Table 3 do not exactly match 2010 prices reflected in the 2011 survey, and so on for each year reported in Table 3.

measure of general price inflation grew annually at 2.4 percent over the 17 years. BLS also publishes a CPI for Cable, Satellite, and Radio Services, which grew annually at 4.1 percent over the 17 years.²¹

Table 3
Historical Averages
1995-2012

Year	Basic Price	Expanded Basic Service					Next Most Popular Service and Equipment*	CPI	
		Price	Channels		Price per Channel			All Items	Cable
			No.	Index	(\$)	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
2011	\$19.33	\$57.46	124	217.2	\$0.57	115.9	\$75.37	146.5	189.1
2012	\$20.55	\$61.63	150	262.0	\$0.51	102.9	\$78.91	150.8	196.8
Total change	---	176%	---	162%	---	3%	---	51%	97%
Average annual**	3.9%	6.1%	---	5.8%	---	0.2%	5.2%	2.4%	4.1%

Source: Attachment 7. * Customer premises equipment consisting of the most commonly leased set-top converter and remote control. ** The average annual change is the compound average annual rate of change from 1995-2012.

17. The survey 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

(Continued from previous page)

²⁰ 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.

²¹ 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.

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 77 channels with a family-friendly package, compared to 49 channels for basic service and 150 channels for expanded basic service. While 45 percent of subscribers had the option to elect a family-friendly package, less than one percent subscribed, the others electing basic 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. On average, expanded basic services offered 2.2 channels devoted to regional sports networks,²² compared to the family-friendly packages average of 0.1 regional sports networks. As of January 1, 2012, the price for a family-friendly package, including the additional price of equipment if not included with the package, averaged \$37.22, which fell between the average for basic service (\$20.55) and expanded basic service (\$61.63).

B. Cable Programming Channels

18. 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 percent change is statistically significant (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.²³ Overall, the number of channels average 49, 150, and 231 for basic service, expanded basic service, and the next most popular service, respectively. The number of video channels for all services averaged 407, which consists of the channels shown with basic, expanded basic, the next most popular service, other non-premium and premium packages, and pay and per-view programming. The number of channels in each category grew although not always by a statistically significant percentage. Looking at effective competition subgroups, the number of channels in almost all subgroups and services are higher than in the noncompetitive group counterparts.

Cable Programming Service	Overall Average	Noncompetitive	Effective Competition Group and Subgroups					
			Group Average	Second Cable Operator			DBS	Other
				Incumbent	Rival	Both		
Basic service	49	46	53	64	43	61	50	52
Annual change	6.6%*	5.6%	8.0%*	6.9%	6.0%	6.8%	8.0%	12.3%
Expanded basic	150	146	155	168	149	165	151	151
Annual change	7.0%*	6.4%*	7.8%*	3.4%	9.3%	4.2%	9.2%*	9.6%
Next most popular	231	222	243	257	231	254	241	233
Annual change	6.5%*	6.2%*	6.9%*	4.6%	6.2%	4.8%	7.8%*	6.9%
All services	407	373	451	490	449	484	436	460
Annual change	7.2%*	6.5%*	8.2%*	5.6%*	9.3%	6.1%*	8.8%*	11.0%*

Source: Attachment 5. * Indicates a statistically significant annual change.

²² Regional sports networks are defined in paragraph 20, below.

²³ 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 cable networks; video on demand offering free content; and other channels if offered at no extra programming charge. The numbers do not include audio only channels.

19. Table 5 displays basic service broken into its component channel categories, which vary by only 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.

Channel Category	Overall Average	Non-competitive	Effective Competition Group and Subgroups					
			Group Average	Second Cable Operator			DBS	Other
				Incumbent	Rival	Both		
Analog & std. definition digital broadcast channels	13.7	13.0	14.7	15.3	14.0	15.1	14.3	17.1
High definition digital	4.0	3.9	4.0	3.4	5.2	3.6	4.2	4.3
Digital multicast channels	11.6	10.1	13.5	15.3	10.7	14.6	13.5	10.1
All local broadcast	29.2	27.0	32.3	34.0	29.9	33.4	31.9	31.6
Pub., educ. & govt. (PEG)	3.3	3.1	3.6	4.1	5.6	4.3	3.4	2.9
Commercial leased access	1.0	0.7	1.4	1.8	0.5	1.6	1.3	1.7
Regional sports Networks	0.3	0.3	0.4	0.7	0.2	0.6	0.4	0.1
Other channels	15.2	15.0	15.4	23.4	7.3	21.1	13.2	16.1
All basic service	49.1	46.0	53.1	64.1	43.4	61.1	50.1	52.2

Source: Survey. Totals may not add due to rounding.

20. Table 6 reports the number of regional sports networks (RSNs) included in service offerings. Overall, the average is 0.2 RSN channels on basic service, 2.2 channels on expanded basic service, and 2.5 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 Group and Subgroups					
			Group Average	Second Cable Operator			DBS	Other
				Incumbent	Rival	Both		
Basic service	0.2	0.2	0.3	0.5	0.2	0.5	0.3	0.1
Expanded basic	2.2	2.2	2.2	2.5	5.0	2.9	1.9	2.7
Next most popular	2.5	2.6	2.3	2.5	5.3	2.9	2.0	2.9

Source: Survey.

C. Customer Premises Equipment

21. 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 HD channels in HD format and a remote control. 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 asked to identify the equipment features, such as an interactive programming guide, a digital video recorder, etc. Table 7 shows that, as of January 1, 2012, the average equipment price was \$6.28 with basic service, \$7.29 with expanded basic service, and \$7.75 with the next most popular service package.²⁴ Most equipment prices increased on an annual basis. The overall price for the most commonly leased equipment with basic service increased from \$5.11 to \$6.28 or 22.9 percent. The overall equipment price increases for expanded basic service (0.9 percent) and the next most popular services (1.9 percent) were lower than the programming price increases for those services (4.8 percent and 4.3 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 Group and Subgroups					
			Group Average	Second Cable Operator			DBS	Other
				Incumbent	Rival	Both		
Basic service	\$6.28	\$6.12	\$6.45	\$6.65	\$7.89	\$6.80	\$6.37	\$5.32
Annual change	22.9%	28.1%	18.1%	8.7%	23.1%	10.7%	20.9%	22.7%
Expanded basic	\$7.29	\$7.20	\$7.38	\$7.55	\$8.14	\$7.64	\$7.40	\$5.96
Annual change	0.9%	0.0%	1.8%	2.9%	-12.6%	0.1%	2.3%	6.3%
Next most popular	\$7.75	\$7.40	\$8.16	\$7.99	\$8.15	\$8.02	\$8.25	\$7.96
Annual change	1.9%	0.1%	4.0%	4.5%	-11.4%	1.6%	5.0%	7.0%

Source: Attachment 5.

22. Table 8 identifies equipment features and the percent of cable systems in which the most commonly leased customer premises 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, 89 percent of systems offer a RCU. The most commonly leased basic service equipment for 63 percent of systems includes an IPG, compared to at least 90 percent for the other two services. Percentages are similar across all three services for the other two features in the table. Regarding basic service, for 37 percent of systems, the most commonly leased equipment includes HD video capability; and for 15 percent of systems, the most commonly leased equipment includes a DVR.

²⁴ 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.

Cable Programming Service	Feature	Overall Average	Non competitive	Effective Competition Group and Subgroups					
				Group Average	Second Cable Operator			DBS	Other
					Incumbent	Rival	Both		
Basic service	DVR	15%	9%	24%	30%	2%	27%	23%	18%
	HD	37%	28%	49%	72%	76%	72%	42%	29%
	IPG	63%	65%	61%	83%	93%	84%	54%	37%
	RCU	89%	85%	94%	88%	96%	89%	96%	97%
Expanded basic	DVR	16%	10%	23%	30%	2%	26%	23%	19%
	HD	40%	33%	50%	70%	77%	71%	43%	36%
	IPG	90%	90%	89%	93%	92%	93%	90%	76%
	RCU	96%	93%	100%	100%	96%	99%	100%	98%
Next most popular	DVR	19%	13%	27%	36%	9%	32%	25%	21%
	HD	45%	37%	56%	77%	75%	76%	48%	54%
	IPG	96%	94%	99%	98%	95%	98%	99%	100%
	RCU	95%	92%	98%	100%	95%	99%	99%	93%

Source: Survey.

D. DTV Viewability

23. 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, 2012.²⁵ All operators in our survey responded that cable system headend equipment was in place to receive analog and digital broadcast signals. There are several scenarios that operators use to 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.

24. Figures shown in the Overall Average column for all sample groups in Table 9 show that 82 percent of households (or other subscriber premises) received analog, SD, and HD signals over three separate transmission paths for viewing by analog, SD, and HD customers, respectively. Eleven

²⁵ Under the Communications Act, 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. See 47 U.S.C. § 534(b)(7) (must-carry signals “shall be viewable via cable on all television receivers of a subscriber which are connected to a cable system by a cable operator or for which a cable operator provides a connection”). The survey included questions which addressed viewing capability. We note that under our viewability order, cable operators of a hybrid system (*i.e.*, a system that offers both analog and digital cable service to its subscribers) may comply with the statutory viewability requirement either by choosing to down-convert digital must-carry stations to analog format in addition to carrying those stations in digital format. Alternatively, after December 12, 2012, a hybrid cable operator may make must-carry signals available to analog subscribers by offering the necessary equipment for sale or lease, either for free or at an affordable cost that does not substantially deter the use of the equipment. See *Carriage of Digital Television Broadcast Signals: Amendment to Part 76 of the Commission’s Rules*, CS Docket 98-120, *Fifth Report and Order*, 27 FCC Rcd 6529 (2012).

percent received signals over all-digital systems with HD and SD capability where the HD and SD signals are either sent separately or on the same transmission path. If there is a single transmission path, a signal transmitted in HD format is converted to SD format and then from SD to analog format, using customer premises equipment, for viewing by SD digital and analog television customers, respectively. Three percent of subscribers received signals over separate analog and digital transmission paths. Two percent of subscribers received signals over an analog-only system and two percent received signals over SD digital-only systems. In the SD digital-only scenario, customer premises equipment converts the SD signals to analog format for viewing by analog television customers.

From Cable System Headend to Customer Premises Equipment	Overall Average	Non competitive	Effective Competition Group and Subgroups					
			Group	Second Cable Operator			DBS	Other
				Incumbent	Rival	Both		
3 separate analog/SD/HD paths	82%	76%	89%	80%	30%	73%	95%	98%
HD/SD path(s). If 1 path, CPE converts HD to SD to analog	11%	13%	7%	17%	54%	22%	2%	2%
2 separate analog/digital paths. CPE converts digital HD to SD	3%	5%	1%	0%	14%	2%	1%	0%
1 analog path. Analog viewing only	2%	3%	2%	3%	0%	3%	1%	0%
1 SD digital path. CPE converts SD to analog for analog TV	2%	3%	1%	0%	2%	0%	1%	0%

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

25. Table 10 displays the signal transmission path percentages 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 85.1 percent of large systems to 36.4 percent of very small systems. A range from 3.0 percent to 19.0 percent of the total number of systems surveyed were HD/SD digital systems with no analog path. Systems transmitting over separate analog and digital paths ranged from 9.1 percent of very small systems to 2.1 percent of very large systems. Analog-only architectures ranged from zero to 51.5 percent of very small systems. SD digital only systems ranged from zero to 11.7 percent by system size.

From Cable System Headend to Customer Premises Equipment	Very Large Over 75,000 Subscribers	Large 25,001 - 75,000	Medium 10,001 - 25,000	Small 1,001- 10,000	Very Small Up to 1,000 Subscribers
3 separate analog/SD/HD paths	77.5%	85.1%	70.1%	64.3%	36.4%
1 or 2 digital HD/SD paths	19.0%	11.4%	6.5%	4.8%	3.0%
2 separate analog/digital paths	2.1%	3.5%	7.8%	11.9%	9.1%
1 analog path only	0.0%	0.0%	3.9%	14.3%	51.5%
1 SD digital path	1.4%	0.0%	11.7%	4.8%	0.0%

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

26. 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 the difference in the overall average of the number of channels carried via retransmission consent (6.8) compared to must carry (10.9). More analog and SD channels were must-carry channels (9.0) than retransmission consent (4.8), and the average number of HD channels carried via retransmission consent and must carry was almost the same (2.0 and 1.9, respectively).

Carriage Election	Viewing Format	Overall Average	Non competitive	Effective Competition Subgroups					
				Group Avg.	Second Cable Operator			DBS	Other
					Incumbent	Rival	Both		
Retransmission consent	Analog & SD digital	4.8	4.7	4.8	5.0	4.6	4.9	4.6	7.0
	HD digital	2.0	2.0	2.0	1.5	3.0	1.7	2.1	2.4
	Total	6.8	6.7	6.8	6.4	7.5	6.6	6.7	9.4
Must carry	Analog & SD digital	9.0	8.3	9.9	10.3	9.4	10.2	9.8	10.1
	HD digital	1.9	1.9	2.0	1.9	2.2	1.9	2.1	1.9
	Total	10.9	10.2	11.9	12.2	11.6	12.2	11.8	12.0

Source: Survey. Totals may not add due to rounding.

IV. CONCLUSION

27. Expanded basic cable prices increased by 4.8 percent for the 12 months ending January 1, 2012, and at a compound average annual rate of 6.1 percent over the 17-year period from 1995-2012. This compares to a 2.9 percent increase in general inflation as measured by the CPI (All Items) for the same one-year period. The CPI’s compound average rate of growth over the 17-year period was 2.4 percent. The CPI for Cable, Satellite, and Radio Services grew by 4.1 percent in both 2012 and over the 17 year period. Compared to the average expanded basic price that cable system operators charged in noncompetitive communities, prices on January 1, 2012 were two percent higher for rival operators and one percent higher for the incumbent operators in communities with at least two cable operators. Expanded basic prices of cable operators were three percent higher in the areas where effective competition determinations were granted based on the existence of a DBS market share exceeding the 15 percent threshold established by the statute. On a per channel basis, the average price per channel (programming price divided by number of channels) of expanded basic service has grown by 0.2 percent on an annual basis over the last 17 years. The price per channel averages six percent lower in effective competition communities overall compared to price per channel in noncompetitive communities, and 14 percent lower in the subgroup where there are at least two cable operators, reflecting that cable operators in these effective competition communities carry more channels on expanded basic than operators in noncompetitive communities.

V. ORDERING CLAUSE

28. 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

**Attachment 1
2012 Survey**

Sample Groups and Subgroups	No. of Cable Communities	Percent of National Subscribers	Survey Sample Size	Sample Responses
Overall Sample	33,951	100%	800	775
Noncompetitive Group	24,487	57.70%	485	462
Effective Competition Group	9,464	42.30%	315	313
Noncompetitive Subgroups * Stratified by cable system size				
Very Large : > 75,000 subscribers	6,763	25.64%	149	148
Large : 25,001-75,000	4,787	15.16%	118	117
Medium : 10,001-25,000	4,161	7.78%	80	79
Small : 1,001-10,000	5,958	8.08%	98	85
Very Small : 1,000 or less	2,818	1.04%	40	33
Effective Competitive Subgroups ** Stratified on the basis of the type of finding of effective competition for a cable operator in a community				
Second Cable Operator : Presence of two or more cable operators in the same community				
• Incumbent cable operator subgroup	733	9.37%	56	56
• Rival "second" operator subgroup	545	1.57%	56	56
DBS subgroup : Cable operators (does not include DBS operators) with finding on the basis of DBS market share under 50/15 test	6,702	28.22%	163	163
Other subgroup : Communities in range of a wireless MVPD or where less than 30% of households subscribe to the operator's cable programming service (low penetration test)	1,484	3.13%	40	38

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)*.

* The Commission assigns a community unit identifier (CUID) to each cable operator for each community the operator serves. Noncompetitive communities are those for which the Commission had not made a finding of effective competition and effective competition communities are those for which the Commission had made an effective competition finding as of January 1, 2012. The Appendix further discusses the survey groups.

** There are fewer rivals (545) than incumbents (733) in the second cable operator subgroup mainly because the rival operators do not include AT&T U-verse since these systems are not associated with a CUID. The Commission however considers AT&T U-Verse to be a rival cable operator for purposes of findings of effective competition for incumbent operators. Similarly, the DBS market share subgroup consists of cable operators with a finding made on the basis of DBS market share, however, this subgroup does not include the DBS operators.

Attachment 2
Cable Programming
Average Prices
 January 1, 2012

Cable Programming Service	Overall Average	Non competitive	Effective Competition	Effective Competition Subgroups				
				Second Cable Operator			DBS	Other
				Incumbent	Rival	Both		
Basic service	\$20.55	\$20.83	\$20.19	\$18.93	\$17.69	\$18.75	\$20.47	\$22.86
Standard error	0.246	0.378	0.277	0.446	0.760	0.397	0.377	0.723
Observations	775	462	313	56	56	112	163	38
Prior year	\$19.36	\$19.80	\$18.79	\$17.58	\$17.08	\$17.51	\$19.04	\$21.05
Standard error	0.238	0.370	0.262	0.366	0.701	0.329	0.362	0.739
Observations	759	446	313	56	56	112	163	38
Annual change	6.2%	5.2%	7.5%	7.6%	3.6%	7.1%	7.5%	8.6%
Expanded basic	\$61.63	\$60.99	\$62.49	\$61.64	\$62.28	\$61.73	\$62.76	\$62.71
Standard error	0.240	0.326	0.351	0.408	0.762	0.366	0.490	1.176
Observations	774	461	313	56	56	112	163	38
Prior year	\$58.83	\$58.46	\$59.32	\$58.45	\$60.40	\$58.73	\$59.54	\$59.39
Standard error	0.228	0.311	0.334	0.539	0.813	0.476	0.450	1.011
Observations	758	445	313	56	56	112	163	38
Annual change	4.8%	4.3%	5.3%	5.4%	3.1%	5.1%	5.4%	5.6%
Next most popular	\$74.57	\$74.84	\$74.22	\$71.51	\$75.28	\$72.05	\$75.01	\$74.82
Standard error	0.322	0.428	0.487	0.870	0.946	0.757	0.656	1.088
Observations	740	428	312	56	56	112	162	38
Prior year	\$71.47	\$71.91	\$70.92	\$68.42	\$73.23	\$69.11	\$71.55	\$71.66
Standard error	0.313	0.411	0.481	0.840	0.847	0.730	0.652	1.002
Observations	727	415	312	56	56	112	162	38
Annual change	4.3%	4.1%	4.7%	4.5%	2.8%	4.3%	4.8%	4.4%

Source: Survey. Averages are subscriber weighted means of the survey responses. The averages in this table do not include the price for customer premises equipment unless the cable operator bundles the programming service and equipment into a single price. Attachment 3 reports the price of programming, including equipment, for all operators, and the percent of operators that bundle programming and equipment.

Attachment 3								
Programming and Equipment								
Average Total Prices								
January 1, 2012								
Cable Programming Service	Overall Average	Non competitive	Effective Competition	Effective Competition Subgroups				
				Second Cable Operator			DBS	Other
				Incumbent	Rival	Both		
Basic service	\$24.15	\$24.01	\$24.34	\$24.50	\$23.47	\$24.35	\$24.21	\$25.61
Standard error	0.298	0.430	0.394	0.563	0.559	0.488	0.550	0.876
Observations	774	461	313	56	56	112	163	38
Bundled *	28.6%	31.1%	25.2%	11.3%	7.0%	10.7%	29.6%	36.4%
Prior year	\$22.95	\$22.87	\$23.06	\$23.20	\$21.78	\$23.00	\$22.94	\$24.34
Standard error	0.292	0.428	0.376	0.498	0.550	0.433	0.527	0.896
Observations	758	445	313	56	56	112	163	38
Bundled *	14.9%	17.3%	11.8%	3.2%	7.0%	3.8%	14.9%	12.2%
Annual change	5.2%	5.0%	5.6%	5.6%	7.8%	5.9%	5.5%	5.2%
Expanded basic	\$65.57	\$64.56	\$66.92	\$67.10	\$68.53	\$67.31	\$66.84	\$66.22
Standard error	0.311	0.418	0.464	0.486	1.036	0.442	0.651	1.512
Observations	774	461	313	56	56	112	163	38
Bundled *	38.5%	41.3%	34.8%	22.7%	15.7%	21.7%	39.4%	38.8%
Prior year	\$62.71	\$61.94	\$63.70	\$63.88	\$67.55	\$64.41	\$63.53	\$62.68
Standard error	0.297	0.411	0.424	0.606	1.180	0.546	0.581	1.303
Observations	758	445	313	56	56	112	163	38
Bundled *	38.3%	41.2%	34.4%	21.1%	15.7%	20.3%	39.4%	38.8%
Annual change	4.6%	4.2%	5.1%	5.0%	1.5%	4.5%	5.2%	5.6%
Next most popular	\$78.92	\$78.80	\$79.08	\$77.54	\$82.30	\$78.22	\$79.48	\$78.37
Standard error	0.300	0.411	0.437	0.680	0.989	0.600	0.599	1.165
Observations	740	428	312	56	56	112	162	38
Bundled *	43.1%	45.0%	40.5%	24.5%	13.9%	23.0%	45.8%	55.4%
Prior year	\$75.86	\$75.93	\$75.78	\$74.46	\$81.15	\$75.42	\$76.00	\$74.98
Standard error	0.296	0.413	0.420	0.668	0.964	0.588	0.574	1.051
Observations	727	415	312	56	56	112	162	38
Bundled *	41.4%	44.1%	38.0%	21.1%	12.2%	19.8%	43.3%	55.4%
Annual change	4.0%	3.8%	4.4%	4.1%	1.4%	3.7%	4.6%	4.5%

Source: Survey. Averages are subscriber weighted means of the survey responses.

* This statistic refers to the percent of cable operators that bundle the programming service and equipment into a single price. In this attachment, along with the programming price in Attachment 2, if the respondent's programming price does not include customer premises equipment, this measure adds the price of the most commonly leased equipment.

Attachment 4								
Average Price Per Channel								
Price Divided by No. of Channels								
January 1, 2012								
Cable Programming Service	Overall Average	Non competitive	Effective Competition	Effective Competition Subgroups				
				Second Cable Operator			DBS	Other
				Incumbent	Rival	Both		
Basic service	\$0.631	\$0.680	\$0.567	\$0.445	\$0.799	\$0.496	\$0.593	\$0.583
Standard error	0.014	0.018	0.021	0.027	0.072	0.025	0.029	0.063
Observations	774	461	313	56	56	112	163	38
Prior year	\$0.622	\$0.660	\$0.573	\$0.448	\$0.772	\$0.495	\$0.600	\$0.602
Standard error	0.013	0.017	0.020	0.025	0.066	0.023	0.028	0.056
Observations	758	445	313	56	56	112	163	38
Annual change	1.5%	3.0%	-1.0%	-0.8%	3.5%	0.1%	-1.1%	-3.1%
Expanded basic service	\$0.505	\$0.518	\$0.487	\$0.429	\$0.557	\$0.448	\$0.500	\$0.504
Standard error	0.008	0.010	0.013	0.017	0.032	0.015	0.017	0.036
Observations	774	461	313	56	56	112	163	38
Prior year	\$0.507	\$0.517	\$0.493	\$0.419	\$0.565	\$0.440	\$0.512	\$0.510
Standard error	0.007	0.009	0.012	0.016	0.025	0.014	0.016	0.032
Observations	758	445	313	56	56	112	163	38
Annual change	-0.4%	0.2%	-1.4%	2.4%	-1.5%	1.7%	-2.4%	-1.2%
Next most popular	\$0.387	\$0.408	\$0.359	\$0.327	\$0.402	\$0.338	\$0.365	\$0.390
Standard error	0.005	0.008	0.007	0.012	0.020	0.010	0.010	0.021
Observations	740	428	312	56	56	112	162	38
Prior year	\$0.391	\$0.411	\$0.366	\$0.322	\$0.411	\$0.335	\$0.376	\$0.382
Standard error	0.005	0.007	0.007	0.009	0.017	0.008	0.010	0.020
Observations	727	415	312	56	56	112	162	38
Annual change	-1.1%	-0.7%	-1.7%	1.6%	-2.2%	0.9%	-3.0%	2.2%

Source: Survey. Averages are subscriber weighted means of the survey responses. Price per channel adjusts the expanded basic programming price to incorporate differences in 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 receive.

Attachment 5								
Customer Premises Equipment								
Average Prices								
January 1, 2012								
Cable Programming Service	Overall Average	Noncompetitive	Effective Competition	Effective Competition Subgroups				
				Second Cable Operator			DBS	Other
				Incumbent	Rival	Both		
Basic service	\$6.28	\$6.12	\$6.45	\$6.65	\$7.89	\$6.80	\$6.37	\$5.32
Standard error	0.175	0.250	0.245	0.316	0.323	0.279	0.366	0.636
Observations	432	228	204	47	42	89	96	19
Prior year	\$5.11	\$4.78	\$5.46	\$6.11	\$6.41	\$6.15	\$5.27	\$4.33
Standard error	0.153	0.202	0.232	0.325	0.218	0.288	0.337	0.419
Observations	507	264	243	52	42	94	121	28
Annual change	22.9%	28.1%	18.1%	8.7%	23.1%	10.7%	20.9%	22.7%
Expanded basic	\$7.29	\$7.20	\$7.38	\$7.55	\$8.14	\$7.64	\$7.40	\$5.96
Standard error	0.144	0.202	0.206	0.180	0.316	0.161	0.318	0.585
Observations	420	224	196	40	44	84	90	22
Prior year	\$7.22	\$7.20	\$7.25	\$7.34	\$9.32	\$7.63	\$7.24	\$5.61
Standard error	0.148	0.215	0.202	0.174	0.239	0.155	0.314	0.541
Observations	407	210	197	41	44	85	90	22
Annual change	0.9%	0.0%	1.8%	2.9%	-12.6%	0.1%	2.3%	6.3%
Next most popular	\$7.75	\$7.40	\$8.16	\$7.99	\$8.15	\$8.02	\$8.25	\$7.96
Standard error	0.115	0.172	0.145	0.108	0.275	0.101	0.230	0.315
Observations	434	240	194	41	48	89	88	17
Prior year	\$7.61	\$7.39	\$7.85	\$7.65	\$9.20	\$7.89	\$7.85	\$7.44
Standard error	0.113	0.173	0.143	0.103	0.200	0.095	0.226	0.274
Observations	433	233	200	43	48	91	92	17
Annual change	1.9%	0.0%	4.0%	4.5%	-11.4%	1.6%	5.0%	7.0%

Source: Survey. Averages are subscriber weighted means of the survey responses. * Customer premises equipment (CPE) refers to a set top converter box or other digital gateway. The survey asks whether or not subscribers who purchase programming require CPE to view all or some channels and whether or not the service includes (bundles) such CPE at no additional charge. If not, the survey asks the respondent to report the unbundled price for the most commonly leased CPE. CPE features may differ yearly between services and sample groups, and thus comparisons of these CPE prices to some extent reflect quality differences.

Attachment 6
Cable Programming
Number of Channels
 January 1, 2012

Cable Programming Service	Overall Average	Non-competitive	Effective Competition	Effective Competition Subgroups				
				Second Cable Operator			DBS	Other
				Incumbent	Rivals	Both		
Basic service	49.1	46.0	53.1	64.1	43.4	61.1	50.1	52.2
Standard error	0.710	0.912	1.123	2.086	2.562	1.823	1.502	2.222
Observations	774	461	313	56	56	112	163	38
Prior year	46.0	43.5	49.2	60.0	40.9	57.2	46.4	46.5
Standard error	0.676	0.891	1.033	1.930	2.435	1.689	1.382	1.913
Observations	758	445	313	56	56	112	163	38
Annual change	6.6%	5.6%	8.0%	6.9%	6.0%	6.8%	8.0%	12.3%
Expanded basic	149.9	146.1	154.8	167.8	148.7	165.0	151.3	151.1
Standard error	1.608	2.111	2.478	4.118	7.525	3.688	3.353	6.095
Observations	774	461	313	56	56	112	163	38
Prior year	140.0	137.3	143.6	162.2	136.0	158.4	138.5	137.8
Standard error	1.519	2.033	2.281	3.948	6.281	3.499	3.072	5.434
Observations	758	445	313	56	56	112	163	38
Annual change	7.0%	6.4%	7.8%	3.4%	9.3%	4.2%	9.2%	9.6%
Next most popular	231.1	221.7	243.3	257.4	230.6	253.5	240.5	232.7
Standard error	2.409	3.055	3.842	6.728	8.970	5.903	5.181	8.943
Observations	740	428	312	56	56	112	162	38
Prior year	217.1	208.7	227.6	246.0	217.1	241.8	223.1	217.7
Standard error	2.279	2.934	3.570	5.600	8.219	4.938	4.910	7.991
Observations	727	415	312	56	56	112	162	38
Annual change	6.5%	6.2%	6.9%	4.6%	6.2%	4.8%	7.8%	6.9%

Source: Survey. Averages are subscriber weighted means of the survey responses.

Attachment 7
Historical Average
1995-2012

Year	Basic Service Price	Expanded Basic Service						Next Most Popular Service and Equipment*	CPI	
		Price		Channels		Price per Channel			All Items	Cable
		(\$)	Index	No.	Index	(\$)	Index			
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	177.7	0.71	118.3	67.92	140.5	183.7
2010	17.93	54.44	243.6	117.0	204.6	0.560	109.7	71.39	144.2	189.1
2011	19.33	57.46	257.1	124.2	217.2	0.569	115.9	75.37	146.5	189.1
2012	20.55	61.63	275.8	149.9	262.1	0.505	102.9	78.92	150.2	196.8
Total change	---	---	176%	---	162%	---	3%	---	51%	97%
Average annual**	3.9%	---	6.1%	---	5.8%	---	0.2%	5.2%	2.4%	4.1%

* Customer premises equipment (CPE) consisting of the most commonly leased set-top converter and remote control. ** The average annual change is the compound average annual rate of change from 1995-2012.

Sources: *Statistical Report on Average Rates for Basic Service, Cable Programming Service, and Equipment*, 612 FCC Rcd 3239 (1997) (1997 survey); 14 FCC Rcd 8331 (1999) (1998 survey); 15 FCC Rcd 10927 (2000) (1999 survey); 16 FCC Rcd 4346 (2001) (2000 survey); 17 FCC Rcd 6301 (2002) (2001 survey); 18 FCC Rcd 13284 (2003) (2002 survey); 20 FCC Rcd 2718 (2005) (2003-04 survey); 21 FCC Rcd 15087 (2006) (2005 survey); 24 FCC Rcd 259 (2009) (2006-08 survey); 25 FCC Rcd 13350 (2010) (2009 survey); 27 FCC Rcd 2427 (2012) (2011 survey); Media Bureau, DA 12-1322 (rel. Aug. 13, 2012) (2011 survey); and 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). <http://data.bls.gov/cgi-bin/srgate>. Accessed Dec. 10, 2012. Rebased to Jul. 1995=100.

Notes: Years 1995-2002 are July data and afterward the table reports January data. Table values are the overall survey average, except for 1995-2000 prices and 2000-01 channels, which are from the noncompetitive sample: overall composites were not reported. The 2011 averages are from the 2011 survey and may not match 2011 averages from the 2012 survey in other parts of this report, due to random sampling variance. A missing value indicates we did not survey the metric that year. The 1995 expanded basic price is programming and CPE less an estimate of the CPE portion. The next most popular service price prior to 2010 is the expanded basic price plus the price of a digital tier and CPE. In 2010, the series changed to a more expansive set of channels and the index combines the prior and current series. Through 2009 the index is the prior series and beginning in 2011 is the current series. For 2010, the index uses 2009-2010 data from the 2010 survey. (The 2009 data from the 2010 survey, not displayed in the table, is 101.6 channels and \$0.601 per channel). See Appendix, Section C.

Attachment 8
Historical Average
by Sample Group

Year	Noncompetitive Group				Competitive Group			
	Basic Service Price	Expanded Basic			Basic Service Price	Expanded Basic		
		Price	Channels			Price	Channels	
			No.	Index			No.	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	176.6	\$17.16	\$52.96	79.3	208.7
2010	\$17.97	\$54.27	111.6	200.5	\$17.84	\$54.77	127.8	246.5
2011	\$19.46	\$56.82	120.4	216.4	\$19.13	\$58.47	130.2	251.0
2012	\$20.83	\$60.99	146.1	262.6	\$20.19	\$62.49	154.8	298.4
Total change	---	173%	---	163%	---	189%	---	198%
Average annual	3.7%	6.1%	---	5.8%	4.1%	6.4%	---	6.6%

Sources and notes: See Attachment 7.

Attachment 9 Programming Service Comparisons Between Cable and DBS Providers			
Price, Channels and Price per Channel	Cable Average	DBS Provider Average	
	Expanded Basic Service	DIRECTV Choice	DISH America's Top 120 Plus
Programming price	\$61.63	\$60.99	\$49.99
Significant difference *	---	Yes	Yes
Observations	774	40	40
Standard error	0.240	0.000	0.000
t-value		2.667	48.500
p-value		0.010	<0.001
Number of channels	150	182	142
Significant difference *	---	Yes	Yes
Observations	774	40	40
Standard error	1.608	1.626	1.440
t-value	---	13.866	3.544
p-value	---	<0.001	0.001
Price per channel	\$0.505	\$0.337	\$0.353
Significant difference *	---	Yes	Yes
Observations	774	40	40
Standard error	0.008	0.003	0.003
t-value	---	19.691	17.530
p-value	---	<0.001	<0.001

Source: Cable prices and channel information from survey at Attachments 2, 4 and 6; DBS prices from *SNL Kagan, Multichannel Video Pricing Report*, End of 2011 (Feb. 10, 2012); DIRECTV national channels from <http://web.archive.org/web/20120116131803/http://www.directv.com/DTVAPP/compare/printablePackageChannels.jsp?packageId=960008&skuId=sku930008> (Jan. 16, 2012); DISH national channels from <http://web.archive.org/web/20120227014641/http://www.mydish.com/downloads/channel-lineup/standardhdchannelguide.pdf> and <http://web.archive.org/web/20120204110147/http://www.dish.com/entertainment/packages/americas-top-120-plus> (Feb. 2012); Local broadcast channels from *Satellite Television Extension and Localism Act of 2010 (STELA), Section 305 Report*, DIRECTV Inc. (Jan. 3, 2011) at Exhibit B; and DISH Network L.L.C. (Dec. 28, 2010) at Exhibit A; Regional Sport Networks for DIRECTV from <http://www.directv.com/DTVAPP/compare/printablePackageChannels.jsp?packageId=960008&skuId=sku930008> (Jan. 16, 2013), for DISH from <http://www.dish.com/entertainment/channels/local/?WT.svl=why> (March 27, 2013).

* Statistically significant difference at the 95 percent confidence level between cable and the DBS average.

Methodology: In Attachment 9, cable price and channel data for expanded basic service are from the Survey. DBS service packages are sold nationally at a uniform price for each package. We determined that DIRECTV Choice and DISH America's Top 120 Plus were the DBS packages most comparable to cable expanded basic service. The number of DBS channels delivered varies by Designated Market Area (DMA) depending on the number of local broadcast signals and regional sports networks (RSNs) provided. The DBS channel averages are based on 40 communities chosen in a systematic random sample of the 800 cable communities in the survey. Using STELA reports from DISH Network and DIRECTV, we determined each DMA's local broadcast channel count, including both standard and high definition channels. DBS providers did not include RSNs in their STELA reports and, thus, the RSN count is the average number of RSNs across the 40 communities, which is equal to 3.05 channels for DIRECTV and 1.8 channels for DISH. Local broadcast channels and RSNs were added to each DBS provider's national programming package to represent the total number of DBS channels offered in each community sampled. We did not include satellite radio networks in any of the channel tallies.

APPENDIX**Survey Methodology****A. Sampling Procedure**

1. The 2012 survey was conducted pursuant to the requirements of the Cable Act.²⁶ 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.²⁷ 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, 2012. 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.²⁸ 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.²⁹ The survey collected prices charged by wireline operators. The survey did not collect prices charged by DBS and wireless MVPD operators.³⁰

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

²⁶ See note 1, Section I, *supra*.

²⁷ 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>.

²⁸ See e.g., W. G. Cochran, *Sampling Techniques*, 2nd ed. (1977) at 87-107.

²⁹ 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.

³⁰ 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.

within one percent of actual price means at a 95 percent confidence level.³¹ We then allocated the number 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.³² A higher measure relative to the other strata resulted in a relatively higher allocation. Further, we adjusted each allocation by a non-response factor.³³ 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,³⁴ using probability proportional to size (PPS) sampling without replacement.³⁵ 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).³⁶ 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.³⁷ 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.*

³¹ 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.

³² 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).

³³ 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.

³⁴ 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*.

³⁵ 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).

³⁶ 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).

³⁷ 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.

B. Data Quality Control

5. To improve the quality of the survey data and reduce the burden on operators, the survey questionnaire is web-based.³⁸ 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 97 percent (or 775 of 800 communities in the sample). Of the 25 non-responses, 12 operators no longer provided cable service to the community; seven operators (accounting for eight communities) had yet to commence service; three operators (accounting for four communities) acquired these systems recently, and therefore, did not have data over the survey timeframe; and one operator did not file due to extenuating circumstances.

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 15 percent 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.³⁹ 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.⁴⁰ 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

³⁸ 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.

³⁹ 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.

⁴⁰ 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.

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

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

where X_i is the response from cable community i , Sub_i is the number of basic subscribers in community i , and π_i is the probability of community i being selected into the sample.⁴¹

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

$$X_t = ((P_{i,t} + E_{i,t}) / C_{i,t})$$

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”).⁴² Standard errors can also identify whether or not price differences are statistically significant at a 95-percent confidence level. The discussion above refers to

⁴¹ We conducted the data analysis using SAS Software, Version 9.3, SAS Institute Inc.; and SAS Macro SMSUB, Version 3.1. [HTTP:// support.sas.com/kb/25/addl/fusion_25033_1_. smsub.sas.txt](http://support.sas.com/kb/25/addl/fusion_25033_1_.smsub.sas.txt) (Accessed Oct. 31, 2012).

⁴² This “95 percent confidence interval” is a range surrounding the sample average plus or minus 1.96 multiplied by the standard error.

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.

10. In addition to the sampling variance discussed above, changes in the composition of sample subgroups affect means.⁴³ 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.

⁴³ See, e.g., D. Holt and C. J. Skinner, *Components of Change in Repeated Surveys*, International Statistical Review, 57 (1989) at 1-18.