

Maureen R. Jeffreys
Maureen.Jeffreys@aporter.com
+1 202.942.6608
+1 202.942.5999 Fax
555 Twelfth Street, NW
Washington, DC 20004-1206

July 28, 2014

VIA ECFS

Marlene H. Dortch, Esq.
Secretary
Federal Communications Commission
445 Twelfth Street, SW
Washington, D.C. 20554

Re: *Applications of AT&T Inc. and DIRECTV for Consent to Assign or Transfer Control of Licenses and Authorizations*, MB Docket No. 14-90
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Dear Ms. Dortch:

Pursuant to the *Joint Protective Order* in the above-referenced proceeding,¹ AT&T Inc. (“AT&T”) and DIRECTV (together, the “Applicants”) are submitting (1) a DVD-ROM containing the *unredacted*, Highly Confidential paper prepared by Compass Lexecon entitled “Additional Detail on the Demand Estimation, Merger Simulation, and Investment Model Analysis Performed by Professor Katz”; and (2) a hard drive containing the *unredacted*, Highly Confidential files pertaining to the paper. AT&T is filing herewith, via ECFS, a *redacted* public version of this submission.

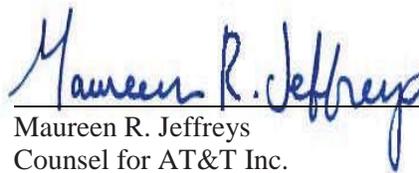
An unredacted Stamped Highly Confidential copy of this submission is being hand delivered to your office. Additional copies of the unredacted submission are being delivered to the Commission staff under separate cover.

¹*Applications of AT&T Inc. and DIRECTV for Consent to Assign or Transfer Control of Licenses and Authorizations*, Joint Protective Order, DA 14-804 (MB rel. June 11, 2014), Appendix A (“*Joint Protective Order*”).

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Please contact me at (202) 942-6608 or Maureen.Jeffreys@aporter.com if you have any questions. Thank you for your assistance.

Respectfully submitted,


Maureen R. Jeffreys
Counsel for AT&T Inc.

Enclosure

**ADDITIONAL DETAIL ON THE DEMAND ESTIMATION,
MERGER SIMULATION, AND INVESTMENT MODEL ANALYSIS
PERFORMED BY PROFESSOR KATZ**

I. INTRODUCTION

1. In conjunction with the Public Interest Showing filed by AT&T and DIRECTV in support of their proposed merger, Professor Michael L. Katz filed a declaration analyzing the impact on consumers of the proposed merger of the companies.¹ Professor Katz reported the results of an initial demand estimation and merger simulation performed in conjunction with Compass Lexecon that showed the merger would increase aggregate consumer welfare even before cost-saving and other efficiencies were considered. The Katz Declaration included an appendix summarizing the econometric approach and the data sources used in Professor Katz's demand estimation and merger simulation, and the backup materials (including the data and programs used) have been provided for the record.²

2. Professor Katz also analyzed the efficiencies of the merger that would accrue to the benefit of consumers following the merger. As one aspect of that analysis, Professor Katz described AT&T's ordinary-course investment model that he used to evaluate the impact of certain of the efficiencies on AT&T's incentives to invest in building out its fiber-to-the-premise ("FTTP") network following the merger; that model has been submitted to the Commission.

3. In this supplemental memorandum, Compass Lexecon provides additional explanation of the data and analyses reported in the Katz Declaration, covering the demand estimation, merger

¹ Michael L. Katz, "An Economic Assessment of AT&T's Proposed Acquisition of DIRECTV," June 11, 2014 (hereinafter, *Katz Declaration*).

² AT&T and DIRECTV filed the majority of the backup materials for the Katz Declaration with the Commission on June 17, 2014. Subsequent submissions of additional files and information were made on June 20, 2014, June 23, 2014, June 25, 2014, June 30, 2014, July 8, 2014, and July 17, 2014.

simulation, and FTTP investment analysis.³ Full details of the demand estimation and merger simulation are available in the backup files submitted to the Commission.

4. Several weeks after Professor Katz submitted his Declaration with the Public Interest Statement, Professors Steve Berry and Phil Haile of Yale University completed their own merger simulation that continued the same research agenda as Professor Katz and confirmed Professor Katz's conclusions.⁴ The details of the analysis performed by Professors Berry and Haile, along with the data they relied on, have been provided to the Commission both in extensive documentation filed in the record on July 17, 2014 and in a presentation by Professors Berry and Haile to Commission staff on July 22, 2014.⁵ Therefore, this supplemental memorandum addresses Professor Katz's economic modeling exclusively.

II. DEMAND ESTIMATION AND MERGER SIMULATION

A. DATA PREPARATION

5. The data used by Professor Katz for his initial demand estimation and merger simulation were gathered from a variety of sources including public sources, proprietary third-party data sources, a commissioned survey of consumers, and the parties themselves.

1. Shares

6. The demand estimation and merger simulation analysis focuses on the impact of the proposed merger on consumers of video and/or broadband services. Because AT&T and other firms are multiproduct firms and consumers may choose to buy a bundle of video and broadband from one company, or video from one company and broadband from a different company, or

³ A separate document describing AT&T's FTTP ordinary-course investment model in more detail is also being submitted to the Commission. That document describes the FTTP investment model as it is used by AT&T in the ordinary course of business. Herein, we provide further detail on modifications to the model as described by Professor Katz in his Declaration.

⁴ Like the Katz analysis, the Berry-Haile analysis used a nested logit demand model, but, among other modifications, it incorporated additional data, allowed for a richer product set, and relaxed the assumption that the nesting parameters were identical.

⁵ Professors Berry and Haile submitted to the Commission a 165-page presentation deck and backup materials supporting their analysis and conclusions.

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may buy only one of the two products, the demand estimation should account for all of these bundled and non-bundled choices. No pre-existing data source that we are aware of is sufficiently rich to support such an analysis, and so to estimate shares of various product combinations in different geographies (DMAs[®]),⁶ AT&T commissioned a consumer survey (the “Dhar survey”). The results of that survey were combined with information on consumer purchases of video and/or broadband from the parties, as well as data from third-party sources, to estimate product shares in each DMA[®]. We describe below the data and methodology used in the construction of these estimated shares.

(a) Dhar survey data

7. In order to collect detailed information on consumer video and Internet choices, AT&T commissioned a survey and retained Professor Ravi Dhar of Yale University to design and supervise the survey.⁷ The survey provides information on the proportion of U.S. households that subscribe to video and broadband services at a detailed geographic level, and yields information on the provider(s) for each service or bundle chosen by consumers. Professor Dhar worked with Applied Marketing Science (AMS) to implement the survey. The survey was administered to a panel of U.S. consumers maintained by Research Now.

8. The survey incorporated elements designed to ensure objectivity and accuracy in respondents’ answers, *e.g.*, the respondent was not told who sponsored the survey, the respondents were instructed not to guess, and the respondents had to state that they had knowledge of the video and broadband provider, if any, at their primary residence. Additional qualifications to be included in the survey were that the respondent had to be at least 18 years of age; live in a primary residence that is in one of the Nielsen DMAs[®]; and not be employed by a company that provides video, telephone, or Internet services, or marketing firm (advertising

⁶ DMA[®] is a registered trademark of The Nielsen Company. Used under license. Table A-20 identifies DMAs[®] and provides information on how each was used in the analysis.

⁷ Professor Dhar is the George Rogers Clark Professor of Management and Marketing and Director of the Yale Center for Customer Insights at the Yale School of Management. He has extensive experience in the design and execution of consumer surveys, including work on behalf of the Department of Justice Antitrust Division in merger cases.

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agency, marketing research, or public relations). The survey was administered over the Internet to invited U.S. consumers who are part of a Research Now panel, and respondents were paid \$2.50 to complete the survey.

9. The survey was conducted from April 21 through May 2, 2014. An invitation to participate in the survey was emailed to 970,224 potential participants. Of these, 115,751 (11.9 percent) began the survey and 102,466 completed it. After deleting responses that were completed too quickly or too slowly (which may impact response quality) and those with conflicting responses to different questions, the final sample size was 100,356.⁸

10. The survey questions and individual responses to each question were filed with the Commission in the backup materials to the Katz Declaration.⁹ The questions used to develop product share data for use in the demand estimation are the following:

- Respondents were asked whether they receive “television service -- such as from a cable, satellite or telephone company” at their primary residence. (This is question QM1R1 in the survey.) Those that responded affirmatively were asked whether they knew what company provides the television service at their primary residence. (QM2R1.) Those who responded that they knew their provider were asked to choose the provider from a drop-down menu of options (*i.e.*, named companies) or to write in the name of the provider, if it was not in the list. (QT1A and QT1AX97.) The provider names displayed to the respondent differed depending on the state of the respondent’s primary residence.

⁸ In our analysis, we use the survey responses at the DMA[®] level. To aggregate to this level in a way that is consistent with our aggregation of other data (*e.g.*, NTIA broadband map coverage data), we use a ZIP-to-DMA[®] mapping provided by Nielsen rather than the ZIP-to-DMA[®] mapping implied in the Dhar survey responses. Because ZIP codes do not map to DMAs[®] in a one-to-one fashion, however, we assigned each survey respondent to every DMA[®] to which his or her ZIP code matched. This resulted in some respondents being assigned to more than one DMA[®], and resulted in a total number of survey responses in our analysis of 103,699.

⁹ See, [BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION] [END AT&T HIGHLY CONFIDENTIAL INFORMATION] filed with the Commission on June 17, 2014.

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- Similarly, respondents were asked whether they receive “Internet service - such as broadband (e.g., cable, fiber optic, DSL, satellite), dial-up, etc.” at their primary residence. (QM1R2.) Those that responded affirmatively were asked whether they knew what company provides the Internet service at their primary residence. (QM2R2.) Respondents who received Internet service were asked whether they received “high-speed/broadband (e.g., cable, fiber optic, DSL, satellite) Internet service from a cable or telephone company (such as Comcast, Time Warner, Verizon FiOS, or AT&T U-verse) or a satellite TV provider (such as DirecTV or DISH),” or “dial-up Internet service from an Internet service provider (such as AOL, EarthLink, NetZero, etc.).” (QI1.) Those who responded that they received high-speed Internet service and who knew their Internet provider were asked to choose the provider from a drop-down menu of options (named companies) or to write in the name of the provider, if it was not in the list.¹⁰ (QI1A and QI1AX97.) The provider names displayed to the respondent differed depending on the state of the respondent’s primary residence.
- The survey also asked for certain demographic characteristics of the respondent, specifically, whether the respondent rents or owns their primary residence (QD1); the type of residence (single-family home, apartment, etc.) (QD2); the number of males over the age of ten in the household (QD3); annual household income (in ranges) (QD4); and the respondent’s race and whether he or she is of Latino, Hispanic, or Spanish origin (QD5 and QD6). Additional demographics (age, income, and level of education) were already known for each respondent in the panel because Survey Now maintains such information on its panel members. (QAGE, QINCOME, and QEDUCATION.)

¹⁰ Respondents who reported having only dial-up service were considered not to have broadband Internet service. All those who reported having high speed/broadband service were included, without regard to speed. (The survey did not ask the respondents to report the speed of their Internet connection.)

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11. Because the survey was administered over the Internet, it is expected that those households without Internet service at their primary residence would be underrepresented in the sample.¹¹ The Katz analysis therefore employed standard methods to re-weight the survey responses in order to correct for this or other sources of non-representativeness. In particular, we modeled the sample stratification within each DMA[®] as having been generated by a standard “variable probability” stratification scheme.¹² Each observation in the sample is assigned a sample weight, parameterized as a function of whether the respondent has broadband Internet access at home and the respondent’s income category (both reported in the survey). The parameters of the sample weights are then estimated via a generalized method of moments (GMM) procedure¹³ so that the weighted sample’s moments of demographics and broadband Internet access penetration conditional on demographics match (as closely as possible) the same set of moments constructed using national data from the U.S. Census Bureau’s Current Population Survey. The demographic moments used in the estimation included race, age, income level, education level, and interactions of these demographic variables.

(b) GMM methodology incorporating other data

12. Using the estimated weights for each respondent as described above, we constructed shares (based on the re-weighted survey results) for 28 products, where a product was defined as a combination of a video provider (DISH, DIRECTV, Cable, AT&T, Other Telco, or None) and an Internet service provider (Cable, AT&T, Other Telco, Other Broadband, or None).¹⁴ We also

¹¹ A telephonic survey was not considered as it would have been very inefficient and unlikely to generate a more reliable sample.

¹² See, e.g., Jeffrey M. Wooldridge (1999), “Asymptotic Properties of Weighted M-Estimators for Variable Probability Samples,” *Econometrica*, **67**(6):1385-1406; Gautam Tripathi (2011), “Moment-Based Inference with Stratified Data,” *Econometric Theory*, **27**(1):47-73; and Gautam Tripathi (2011), “Generalized Method of Moments (GMM) Based Inference with Stratified Samples when the Aggregate Shares Are Known,” *Journal of Econometrics*, **165**(2): 258-265.

¹³ See, e.g., Lars Peter Hansen (1982), “Large Sample Properties of Generalized Method of Moments Estimators,” *Econometrica*, **50**(4): 1029-1054.

¹⁴ Because AT&T and other telcos (in particular Verizon) generally do not operate in the same footprint, we reassigned the choices of respondents who reported that they had AT&T as their video provider and Other Telco as their broadband provider, or vice versa. Specifically, we

made use of additional data sources to improve the accuracy of the shares. The additional information included subscriber data from the parties (the number of AT&T video subscribers, AT&T broadband subscribers, AT&T video-broadband bundle subscribers, and DIRECTV video subscribers),¹⁵ and a survey administered by Nielsen that provides share estimates of wired-video (cable and telco) and DBS-video (DIRECTV and DISH) by DMA[®].

13. To combine this information on shares and subscribers from multiple data sources, we implemented a GMM procedure that treats the true DMA[®]-level market shares as unknown parameters to be estimated. Because the AT&T and DIRECTV subscriber data represent true subscriber counts at the DMA[®] level, we treat the shares implied by the subscriber data as constraints on the estimated share parameters. Hence, our GMM procedure works by minimizing the weighted deviations between our estimated shares and the re-weighted Dhar survey shares and Nielsen video survey shares, subject to a set of constraints based on the AT&T and DIRECTV subscriber counts. Formally, given the vectors of weighted Dhar survey shares \hat{s}_m and Nielsen video survey shares s_m^N , we estimate the vector of true shares s_m in DMA[®] m by minimizing the following GMM objection function:

$$\min_{\tilde{s}_{jkm} \in [0,1]} (\hat{s}_m - \tilde{s}_m)' V_1^{-1} (\hat{s}_m - \tilde{s}_m) + (s_m^N - f^N(\tilde{s}_m))' V_2^{-1} (s_m^N - f^N(\tilde{s}_m))$$

subject to the constraints:

1. $\sum_{j=0}^J \sum_{k=0}^K \tilde{s}_{jkm} = 1$
2. $\tilde{s}_{AAm} = s_{AAm}^o$
3. $\sum_{k=0}^K \tilde{s}_{Akm} = s_{A \cdot m}^o$
4. $\sum_{j=0}^J \tilde{s}_{jAm} = s_{\cdot Am}^o$

reassigned these respondents' choices as: AT&T Video/Other Telco Broadband → AT&T Video/AT&T Broadband, Other Telco Video/AT&T Broadband → Other Telco Video/Other Telco Broadband.

¹⁵ The AT&T and DIRECTV subscriber numbers used in the GMM procedures and all other analyses are limited to residential subscribers.

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$$5. \sum_{j=0}^J \tilde{s}_{jDm} = s_{Dm}^o$$

In the formulas above, we use the following notation: The Internet component of a product is denoted by $j \in (0, 1, \dots, J)$; the video component is denoted by $k \in (0, 1, \dots, K)$; choice $k=0$ corresponds to “no video” and choice $j=0$ corresponds to “no (broadband) Internet;” \hat{s}_{jkm} is the weighted Dhar survey share of the product defined by Internet choice j and video choice k in DMA[®] m ; s_{jkm} is the true share of the product defined by Internet choice j and video choice k in DMA[®] m ; s_{AAm}^o , s_{A-m}^o , s_{Am}^o , and s_{Dm}^o are true values of one joint-product share, and three additional marginal shares (where A stands for AT&T and D stands for DIRECTV); $s_m^N = (s_{Wm}^N, s_{DBSm}^N)'$ is the vector of Nielsen wired video and DBS video shares in DMA[®] m ; $f^N(\tilde{s}_m)$ is the vector of wired video and DBS video shares implied by the vector \tilde{s}_m ; and V_1 and V_2 are the variance-covariance matrices of \hat{s}_m and s_m^N , respectively.¹⁶

14. Tables A-1 and A-2 show estimated product shares, by DMA[®], and the associated standard errors for the 28 products.¹⁷ For purposes of model estimation, in order to have a common choice set in each DMA[®], we collapse the shares for 28 products into 15 products, where a product is defined as a combination of a video provider (DISH, DIRECTV, Cable, Telco, or None) and an Internet service provider (Cable, Telco, or None).¹⁸ Tables A-3 and A-4 show these estimated shares for these 15 products, by DMA[®], and the standard error associated

¹⁶ Since a share equal to zero will yield a V_1 matrix that is not invertible, for the purpose of weighting (only), we make an adjustment to the estimate of the variance-covariance matrix by treating zero shares as if they were equal to one percent.

¹⁷ In these tables, the outside good is No video / No broadband. Standard errors are calculated using standard formulas for GMM estimation. (Lars Peter Hansen (1982), “Large Sample Properties of Generalized Method of Moments Estimators,” *Econometrica*, **50**(4): 1029-1054, § 3.)

¹⁸ With the full set of 28 products, some products would be available in only a subset of DMAs[®] (because AT&T is present in only some of the DMAs[®]). To avoid having to model choice sets that vary by DMA[®], the Katz analysis condensed the available products to 15, all of which are available in every DMA. The Berry-Haile demand analysis extends Professor Katz’s initial demand model to accommodate varying choice sets.

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with each share estimate. Note that the outside good share in each DMA[®] is estimated as part of the GMM estimation, and is equal to one minus the sum of the shares of the “inside” products.¹⁹

15. Table A-5 shows estimated pre-merger average shares of the 15 products within four different groups of DMAs[®]: (1) DMAs[®] that were excluded from the analysis because the Dhar survey had too few respondents in these DMAs[®] (DMA[®]s with fewer than 300 respondents were excluded); (2) DMAs[®] that were included in the demand estimation but were excluded from the merger simulation (because AT&T is not the leading telco); (3) DMAs[®] that were included in Table 2 of the Katz Declaration (*i.e.*, DMAs[®] *inside* AT&T’s video footprint); and (4) DMAs[®] that were included in Table 3 of Katz Declaration (*i.e.*, DMAs[®] *outside* AT&T’s video footprint—DMAs[®] where AT&T is the leading telco but has at most a small video presence).²⁰

2. Prices

16. In identifying prices for AT&T, DIRECTV, and other providers, we attempted (to the extent possible) to maintain a common definition of the product under consideration and the measure of price. In order to ensure such consistency, in identifying prices of AT&T and DIRECTV, we were constrained by the type of information available from third parties—which is typically limited to promotional monthly service charges.

(a) AT&T and DIRECTV prices

17. For DIRECTV, we used only the base package charges and retention credits to calculate prices. We did not use data on other charges as including them would have been inconsistent with the price data we obtained from the websites of third parties.

18. For the same reason, when calculating AT&T prices, we excluded fees and charges such as taxes, facilities fees, inspection fees, service fees, installation fees, activation charges, and

¹⁹ When we collapse the shares of 28 products into shares for 15 products, the share of the No Video/Other Broadband product is added to the share of the outside good.

²⁰ *See, also*, Table A-20.

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high definition (HD) fees.²¹ In addition, charges related to premium video channels (e.g., HBO) and bundles related to premium channels were excluded. Again, this was done in order to be consistent with the price data obtained for third parties.

(b) Collection of prices for other firms

19. Prices for providers other than AT&T and DIRECTV were collected from the Internet websites of these other providers. As a general matter, the websites of video and broadband providers require that an address and/or ZIP code be entered before availability and price information is displayed. Thus, to gather availability and price information, we had to create a master list of addresses at which service might be provided, choose a set of providers and a subset of addresses to be checked for each provider, retrieve information from provider websites, and organize that information into a standard format. The process we followed for most providers was as follows:

- Preparing addresses. We compiled a master address list of three addresses per ZIP code-DMA[®] combination, using a combination of (a) AT&T customer addresses; (b) DIRECTV customer addresses; and (c) addresses purchased from LeadsPlease (a company that sells mailing lists) for ZIP codes that were not covered in the AT&T and/or DIRECTV customer address files.
- Selecting providers. We started with the providers listed in NTIA's broadband map database.²² For each ZIP code in that database, we kept all providers that covered at

²¹ The AT&T revenue data for U-verse customers includes some data on customers who we understand are receiving regular DSL service at the same address at which they receive U-verse service, or are transitioning from regular DSL to U-verse service. The DSL-portion of these customers' revenue data are indicated in the U-verse revenue data by a ProdType of "P" and a Description of "DSL." [BEGIN AT&T CONFIDENTIAL INFORMATION]

[END AT&T CONFIDENTIAL
INFORMATION]

²² The NTIA broadband map data reports the broadband technology used by each reporting company in each census block in the U.S. We used the June 2013 NTIA data as that was the most recent version available at the time of our analysis.

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least 90 percent of the households in the ZIP code; if there were fewer than three such providers, we kept the three with the greatest amount of coverage. Next, we excluded providers that had coverage in fewer than five DMAs[®] in the NTIA data or had fewer than five subscribers in total (across all DMAs) in the Dhar survey.

- Selecting ZIP codes for each provider. For each provider, we selected every ZIP code in every DMA[®] in which either the provider appeared in the NTIA database (regardless of the level of coverage) or at least one respondent in the Dhar survey in that DMA[®] reported the company as his provider. The addresses in the master address list for these ZIP codes were used for the scraping exercise for the provider.
- Scraping websites. Using the Python programming language, we wrote a set of programs, one for each provider, as well as a main program that controls the individual provider programs. The program reads in the address file, selects the addresses to check based on the provider to be scraped, and goes to the provider website to check availability and pricing at each selected address. The program then scrapes the availability and pricing information, *i.e.*, the program copies and saves the HTML data for each address where service is available.
- Parsing price and availability data. The HTML data were parsed using a combination of programs that we wrote in Python and SAS; a different set of Python and SAS programs was written for each provider. The programs take the raw HTML output, extract the availability and pricing data, and put it into a standardized format.

20. For some providers, it was more efficient to collect data manually without writing scraping programs. For some providers that did not require an address to check pricing or that were present in a very limited area, we collected data using a manual process (a Compass Lexecon staff person collected the information from the provider website) or we wrote a scraper that operated independently of the main Python program. In addition, in some cases where we used the main program to scrape most of a provider's data, we also wrote auxiliary scrapers; typically, this was a separate Python program that gathered channel counts for certain providers that reported channel lineup information on a website that was separate from their order pages.

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21. For a few providers, service availability data was automatically scraped, while plan pricing data was manually scraped. Generally, this occurred when a provider’s website listed a small number of prices, possibly depending on location, and availability was scraped from a separate webpage. Pricing data and availability data were then merged together for these providers.

22. The processed provider data is at the “plan” level, where each observation in the data represents one package for a given provider in a given zip code. The variables in the processed data are of two types:

- Plan Description: These variables indicate which services are offered as well as measures of quality. The variables included are the provider’s name, ZIP code, any add-ons that were relevant to the plan’s pricing, the channel count, the Internet speed, whether the plan includes video/Internet/phone service, and whether premium video channels are included in the plan (with dummy variables for HBO, Showtime, Starz, Cinemax, Encore, and Movieplex). The combination of these plan description variables uniquely identifies a plan.
- Price: For each plan, the pricing information captured is the promotional price and promotion duration (in months), as well a “regular” (non-promotional) price, if available. (In most cases, non-promotional prices are not readily available on provider websites.)

23. Tables A-6, A-7, and A-8 provide descriptive statistics on prices scraped, by provider, for those providers whose data had been collected at the time the Katz analysis was performed. The tables report the mean, minimum, maximum, and standard deviation of prices and the number of video channels and broadband speed, for standalone video, standalone Internet and video/Internet bundles, across DMAs[®].

(c) Construction of hedonic price indexes

24. To create a price index that accounts for varying quality across products, we ran hedonic regressions to estimate prices for each provider-DMA[®] combination for each type of service

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(video, Internet, and bundled service), as a function of plan features (*i.e.*, number of channels or speed).²³ In these regressions (one each for video, Internet, and bundles), an observation is defined by a provider-ZIP-plan combination. The dependent variable in each regression is the average monthly price for a subscriber in his or her first 12 months with a provider. The explanatory variables in the video regression are a spline of the number of channels,²⁴ with knots at 100, 200, and 300; provider-DMA[®] fixed effects; and dummy variables for HBO, Showtime, Cinemax, Starz, Encore, and Movieplex. In the Internet regression, the explanatory variables are a spline of broadband speed, with knots at 10 and 20 Mbps; and provider-DMA[®] fixed effects.²⁵ In the video-Internet bundle regression, the explanatory variables are a spline of the number of channels, with knots at 100, 200, and 300; a spline of broadband speed, with knots at 10 and 20 mbps; provider/DMA[®] fixed effects; and dummy variables for HBO, Showtime, Cinemax, Starz, Encore, and Movieplex. The hedonic price regression results are shown in Table A-9.

25. After the regressions are estimated, the price index is computed as the predicted price for each DMA[®]-product combination, assuming 250 channels and no premium channels for plans with a video component and an Internet speed of 15 mbps for plans that include Internet. DISH prices appear to be set at the national level and do not vary by geography.²⁶ Therefore, for each DMA[®], we use a DISH price equal to the average across the available DISH plans (\$39.99).

²³ See, *e.g.*, Zvi Griliches (1961), "Hedonic Price Indexes for Automobiles: An Econometric Analysis of Quality Change," in Price Statistics Review Committee, ed., *The Price Statistics of the Federal Government*, NBER; and W. Erwin Diewert, Saeed Heravi, and Mick Silver (2009), "Hedonic Imputation versus Time Dummy Hedonic Indexes," in W. Erwin Diewert, John S. Greenlees and Charles R. Hulten, eds., *Price Index Concepts and Measurements*, University of Chicago Press.

²⁴ Premium channels are treated the same as other channels in implementing the spline for video products, *i.e.*, the channel count includes both regular and premium channels.

²⁵ The price regression is estimated using OLS, and the standard errors reported in Table A-9 are regular standard errors.

²⁶ This observation is based on prices and plans listed on the DISH website, which do not appear to vary across geographies, *i.e.*, a single price is quoted for each package, and no address or zip code information is required to obtain this pricing information.

(d) *Notes on price measurement*

26. Two facts about the estimated prices, described above, are worth noting. First, the prices used to form our price index include only the base monthly recurring charge, not other charges such as taxes, fees, equipment charges, and so on. These other charges were excluded because, in many cases, they were not readily available on the web pages from which prices were scraped, and thus they were excluded for all firms in order to measure prices for all firms on a comparable basis. Excluding these other charges should have little effect on our analysis. That portion of the other charges that is common across providers simply changes the interpretation of the constant that is added to the hedonic price index for all providers, discussed above—one could interpret our price index as capturing a slightly lower number of channels and broadband speed, plus a term for other charges. That portion of the other charges that varies across providers, but in a common way across DMAs[®], will be reflected in the various product fixed effects included in the estimation. Finally, if there is any portion of these charges that varies differentially across providers in a way that is not constant across DMAs[®], this implies that the prices used in estimation are imperfectly measured versions of the full price that consumers pay. As described below, the estimated demand model is linear in price with a constant coefficient across consumers, meaning that classical measurement error in price is solved by the instrumental variables procedure used to estimate the model.²⁷

27. Second, as noted above, the prices used to estimate the hedonic price index are constructed to be averages across the first twelve months with a provider (sometimes called “promotional prices”) rather than average prices across all months. As with the choice to use monthly recurring fees, this decision was driven by data availability, as these promotional prices were the most readily available from providers’ web pages. Again, this decision should have little effect on estimation. To the extent that all promotional prices are shifted in a common

²⁷ See, e.g., John D. Sargan (1958), “The Estimation of Economic Relationships Using Instrumental Variables,” *Econometrica*, **26**(3):393-415.

multiplicative way relative to overall average prices, this is equivalent to measuring prices in different units; it will change the price coefficient but not otherwise change results. To the extent that a given provider's promotional price is shifted in a common (across DMA[®]) additive way relative to overall average prices, this will be reflected in the various product fixed effects included in estimation. Finally, to the extent that promotional prices differ from overall average prices in a way that varies across providers differentially across DMAs[®], this creates another source of measurement error, which, like measurement error due to the omission of other charges, is dealt with via the instrumental variable estimation procedure described below.

3. Product coverage and top providers

28. In our demand estimation, we included variables for the percentage of households in a DMA[®] covered by each of four types of service: cable video, cable broadband, telco video, and telco broadband. To determine coverage, we used NTIA data. A cable company was assumed to provide both video and broadband service in a census block group (*i.e.*, to “cover” the census block group) if NTIA broadband map data indicated that the cable company covered any part of that census block group with any technology.²⁸ Cable broadband (video) coverage in a DMA[®] was then estimated as the sum of households in census block groups in the DMA[®] covered by any cable broadband (video) provider divided by the total number of households in the DMA[®].

²⁸ Although we classified companies as either cable companies or telcos, some companies offer services using both traditional cable (in NTIA, *e.g.*, “Cable Modem - DOCSIS 3.0 Down,” and “Cable Modem – Other,”) and traditional telco (in NTIA, *e.g.*, “Asymmetric xDSL,” “Symmetric xDSL,” “other copper wire”) technologies. For each company that we classified as a cable company, we counted all areas where the company had coverage, whether it used a traditional cable technology or some other technology. For a company that we classified as a telco, we counted all areas with coverage, regardless of technology, when determining broadband coverage; but we imposed additional conditions when determining video coverage, as described in ¶ 30.

In the NTIA data, some technologies, notably, “other copper wire” may represent services such as T-1 service (which is typically used by business customers, not residential customers), or ISDN service, which provides only very slow internet speeds. Although we included in our coverage calculations areas covered by “other copper wire,” those areas are usually also covered by other technologies (of the types that residential customers purchase and/or that are faster than ISDN) so that including “other copper wire” did not materially affect our coverage estimates.

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29. For telcos, we define video and broadband coverage separately, since some technologies commonly used by telcos can support broadband but not video services. As with cable companies, a telco was assumed to provide broadband service in a census block group if NTIA broadband map data indicated that the telco covered any part of the census block group with any technology. Telco broadband coverage in a DMA[®] was then defined as the sum of households in census block groups in the DMA[®] covered by any telco broadband provider divided by the total number of households in the DMA[®]. A telco was assumed to provide video service in a census block group if NTIA broadband map data indicated that the telco covered any part of the census block group using the technologies “Cable Modem - DOCSIS 3.0 Down,” “Cable Modem – Other,” or “Optical Carrier/Fiber to the End User,” or the provider had a maximum advertised download speed of at least ten Mbps in that census block group and the provider appeared to have video capabilities.²⁹ Telco video coverage in a DMA[®] is then defined as the sum of households in census block groups in the DMA[®] covered by any telco video provider divided by total number of households in the DMA[®].

30. In addition to overall coverage as defined above, we include in the demand equation dummy variables for select main telco or cable companies in each DMA[®].³⁰ To define these main providers, we estimated broadband and video coverage for each provider using the same procedure as outlined above, using NTIA data. The top cable broadband and video provider in a DMA[®] is the cable company with the highest percentage of households covered, among all cable companies in that DMA[®]. The top telco broadband provider is the telco with the highest percentage of broadband coverage in the DMA[®], among all telco broadband providers. And the top telco video provider is the telco with the highest percentage of video coverage in the DMA[®],

²⁹ A telco was considered to have video capabilities if it used “Cable Modem - DOCSIS 3.0 Down,” “Cable Modem – Other,” or “Optical Carrier/Fiber to the End User” in any census block group reported in the NTIA data, or if the company’s website indicated that it provided video services anywhere (*i.e.*, without respect to location).

³⁰ “Main” providers were only identified for cable companies and telcos, since both DIRECTV and DISH appear in the demand estimation as separate providers.

among all telco video providers. In the demand estimation, we used dummy variables for Comcast and TWC on the cable side and Verizon and AT&T on the telco side.³¹

4. Data summary and descriptive statistics

31. Table A-10 shows each variable used in the demand estimation,³² identifies whether the variable is exogenous, endogenous, or used as an instrument, and gives descriptive statistics. Table A-11 provides a correlation matrix for all of the variables used in our demand estimation. Table A-12 provides the time period covered for each data source used in our analysis.

B. DEMAND ESTIMATION

32. The Katz demand estimation used a standard nested logit model with unobserved product heterogeneity. Products are grouped into four nests to capture sets of products in which substitution is likely to be relatively strong; the four nests are (1) video only (no Internet); (2) Internet only (no video); (3) both video and Internet service; and (4) the outside good (neither video nor Internet). There are four standalone video products (DISH, DIRECTV, cable, telco); two standalone Internet products (cable, telco); and eight combination video/Internet products (the cable bundle, the telco bundle, combinations of DIRECTV or DISH video with cable or telco Internet, and “cross-combinations” of cable-video/telco-Internet or telco-video/cable-Internet).

33. Our estimation approach, including assumptions about which variables are endogenous, which are exogenous, and the associated estimation strategy, is entirely standard in the economic literature. Following Berry (1994), the nested-logit model is estimated via a standard linear instrumental variables approach with the following regression equation:³³

³¹ AT&T coverage data reported in NTIA was not included in those DMAs[®] where AT&T internal coverage data indicate that AT&T does not provide broadband services.

³² In addition to the price variables described above, the demand estimation incorporated variables to control for non-price influences on demand, such as differences in the quality of DBS service.

³³ Steven T. Berry (1994), “Estimating Discrete-Choice Models of Product Differentiation,” *The RAND Journal of Economics*, **25**(2):242-262.

$$\ln(s_{jm}) - \ln(s_{0m}) = \alpha p_{jm} + x'_{jm}\beta + \sigma \ln(s_{jm|A}) + \xi_{jm}$$

where

s_{jm} is the share of product j in DMA[®] m ;

s_{0m} is the share of outside product in DMA[®] m ;

p_{jm} and x'_{jm} are price and non-price characteristics of product j ;

$s_{jm|A}$ is the within-nest share of product j conditional on nest A ; and

ξ_{jm} represents the unobserved characteristics of product j in DMA[®] m

34. All prices and all within-group shares are treated as endogenously determined outcomes of market competition. As is standard in the literature, all other DMA[®] and product characteristics are treated as exogenous, meaning that they are mean independent of the vector of DMA[®] / product error terms.³⁴ Hence, our instruments include:

- A given product's characteristics that are included in its estimating equation. These include the maximum number of channels for video products, maximum speed for broadband products, an indicator for "true bundles" sold by one firm, an indicator for the firm providing video and/or broadband service, population-weighted average DMA[®] latitude³⁵ for DBS products, and the percentage of DMA[®] households covered by the video and/or broadband service.
- Other exogenous variables excluded from a given product's estimating equation. These include average, maximum, and variance of broadband speed, number of video channels, and population-weighted average DMA[®] latitude—with the effects of these variables allowed to vary based on whether a given product contains video or broadband, thus

³⁴ For a description of the use of product characteristics as instruments, *see*, Steven T. Berry, James Levinsohn, and Ariel Pakes (1995), "Automobile Prices in Market Equilibrium," *Econometrica*, **63**(4):841-890.

³⁵ A DMA's population-weighted average latitude is calculated using the population in each ZIP code in the DMA and the latitude of each ZIP code centroid.

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allowing for differential effects by nest—and indicators for the identities of the largest video and broadband providers in a given DMA[®].

35. The logic of the identification strategy underlying this estimation procedure is straightforward. Unlike in many other industries, here there is rich variation across local areas (DMAs[®]) in the set of providers present in an area and in the quality of service offered by those providers. Hence, variation in the product shares across different DMAs[®] directly reveals substitution patterns across different providers. And this variation in market structure can lead to price variation across DMAs[®], with the effect of this price variation identifying the price coefficient. The key sources of this choice set variation (and the logic for why each is exogenous) are:

- The identity of the main cable provider in each DMA[®], which is an important source of variation in the quality of the cable product by DMA[®] and which derives largely from historical decisions about who holds the cable franchise in a given area;
- The latitude of the DMA[®], which is clearly exogenous and which determines the quality of the local DBS offerings (due to the need for flatter dish angles at higher latitudes);
- Whether the local telco provider offers a video product and the coverage of that product, which is largely determined by historical decisions about which telco providers serve particular areas as well as overall strategies on video rollout by telco providers.

36. Two important product characteristics that allow us to account for the average difference in product quality between cable and telco providers (not already captured via the price index) are average speed and number of channels. To create these variables, we first identify the maximum number of channels and broadband speed for each provider-ZIP combination. We then aggregate these numbers to the provider-DMA[®] level by taking the household-weighted average across ZIP codes within a DMA[®]. Finally, the provider-DMA[®] averages are aggregated to the product-DMA[®] level by taking the average across providers within a product, weighting by each provider's coverage in a given DMA[®].

37. Table A-13 provides point estimates, sample size, measures of explanatory power, and standard errors for the demand estimation.³⁶

C. MERGER SIMULATION

1. Simulating the merger's impact on prices and consumer welfare

38. AT&T video and DIRECTV video are substitutes in those areas where both services are offered, while AT&T broadband and DIRECTV video are complements in those areas where both services are offered. Because a merger of substitutes tends to produce upward pricing pressure (by eliminating a competitive choice) and a merger of complements tends to produce downward pricing pressure (by internalizing a pricing externality), Professor Katz explained that theory alone does not reveal the direction of the price and welfare effects of the proposed merger.³⁷ A simulation can indicate the direction and magnitude of these price and welfare effects. Using the share data, price data, and estimated nested-logit demand parameters, as described above, the effects of the merger were simulated separately for each DMA[®] in which AT&T is the leading telco, based on a Bertrand-Nash pricing model.

39. Pre-merger, we assume that DIRECTV and DISH set their video prices, and the telco and cable providers set prices for standalone video, standalone Internet, and a bundle of video and Internet. The prices for combinations of video and Internet sold by different firms (“synthetic bundles”) are the sum of the prices of the standalone services, with the exception that the prices for combinations of DIRECTV video and telco Internet services are the sum of the standalone prices **[BEGIN AT&T & DIRECTV HIGHLY CONFIDENTIAL INFORMATION]**

[END AT&T & DIRECTV

³⁶ The demand model is estimated using OLS, and the standard errors reported in Table A-13 are regular standard errors.

³⁷ These pricing pressures do not account for the impact of cost saving efficiencies, which tend to put downward pricing pressure on prices, whether the merger involves substitutes or complements.

HIGHLY CONFIDENTIAL INFORMATION]³⁸ Each firm recognizes that, when it changes its standalone price, this leads to a change in the price of the associated synthetic bundles.

40. More precisely, each firm f in DMA[®] m chooses prices of the set of products (a standalone service or a combination of video and Internet produced by the same firm) that it produces in order to maximize expected per household profit:

$$\pi_m^f(p_m) = \sum_{r \in R_m^f} (p_{rm}^f - mc_{rm}^f) s_{rm}^f(p_m) - \frac{d}{2} \phi^f(p_m)$$

where:

R_m^f denotes the set of components produced by firm f in DMA[®] m ;

p_{rm}^f and mc_{rm}^f denote the price and marginal cost of component r in DMA[®] m ;

s_{rm}^f denotes the share of component r in DMA[®] m , which is the sum of the share of all products in DMA[®] m that include this component;

d represents the **[BEGIN AT&T & DIRECTV HIGHLY CONFIDENTIAL INFORMATION]** **[END AT&T &**

DIRECTV HIGHLY CONFIDENTIAL INFORMATION]; and

ϕ^f equals the share of the synthetic bundle DIRECTV video / telco broadband if firm f is DIRECTV or telco, and 0 otherwise.

41. As in a typical Bertrand-Nash pricing model with multi-product firms, components' marginal costs can be estimated by exploiting the fact that the first-order conditions of firms' profit maximization problem provide equations that express marginal costs in terms of pre-

³⁸ **[BEGIN AT&T & DIRECTV HIGHLY CONFIDENTIAL INFORMATION]**

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merger prices, shares, and estimated nested logit demand parameters.³⁹ The marginal cost of a synthetic bundle is the sum of the underlying components' marginal costs.

42. Following the merger, the pricing structure changes as follows:

- the prices of DIRECTV video, telco video, telco Internet service, and the telco bundle will be set by a single, combined firm; and
- the price of the DIRECTV-video/telco-Internet bundle will be a separate bundle price (not tied in any mechanical way to the standalone prices), set by a single, combined firm and the [BEGIN AT&T & DIRECTV HIGHLY CONFIDENTIAL INFORMATION]

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In the simulation, marginal costs, product offerings, and non-price product characteristics remain unchanged after the merger, *i.e.*, they are treated as fixed.⁴¹ (In fact, as discussed in the Katz Declaration, it is expected that the merger will lead to a reduction in marginal costs and improvements in product offerings and characteristics. These effects are not accounted for in Professor Katz's simulation, but they are incorporated to some extent in the subsequent Berry-Haile analysis.) Post-merger equilibrium prices, shares, and consumer welfare are endogenous and changes in those variables (induced by changes in the pricing structure) are predicted by the merger simulation. The simulation results are presented as household-weighted averages across those DMAs[®] in which at least [BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION] [END AT&T HIGHLY CONFIDENTIAL INFORMATION]

³⁹ See, *e.g.*, Steven T. Berry, James Levinsohn, and Ariel Pakes (1995), "Automobile Prices in Market Equilibrium," *Econometrica*, **63**(4):841-890; and Aviv Nevo (2000), "Mergers with Differentiated Products: the Case of the Ready-To-Eat Cereal," *The RAND Journal of Economics*, **31**(3):395-421.

⁴⁰ In other words, in the profit equation shown above, the last term of the equation is omitted post-merger.

⁴¹ The marginal costs used are estimated from firms' pre-merger, first-order conditions.

of consumers subscribe to a telco video product (defined as “inside the AT&T video footprint”) and, separately, across those DMAs[®] where AT&T has at most a small video presence (*i.e.*, DMAs[®] in which AT&T is the leading telco but the telco video share is **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]** **[END AT&T HIGHLY CONFIDENTIAL INFORMATION]** which we refer to as DMAs[®] “outside the AT&T video footprint”).⁴²

43. To calculate welfare changes, we let δ_{jm}^{PRE} denote the mean utility⁴³ of consuming product j in DMA[®] m pre-merger, and let δ_{jm}^{POST} be the post-merger mean utility of product j . The change in consumer surplus per household in DMA[®] m can be represented in dollar terms (compensating variation) by:⁴⁴

$$\Delta CS_m = - \frac{W_m^{POST} - W_m^{PRE}}{\alpha}$$

where:

$$W_m^{PRE} = \ln \left(\sum_A \left(\sum_{j \in A} \exp \left(\frac{\delta_{jm}^{PRE}}{1 - \sigma} \right) \right)^{1 - \sigma} \right)$$

is the pre-merger expected consumer surplus per household, A and j are indices for nests and products, and W_m^{POST} is defined similarly.

44. Tables A-14 and A-15 provide pre- and post-merger weighted average prices and shares, by product, for DMAs[®] *inside* the AT&T video footprint (those in Table 2 in the Katz

⁴² An AT&T video share of **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]** **[END AT&T HIGHLY CONFIDENTIAL INFORMATION]** percent was used as a reasonable cutoff to divide DMAs[®] into those with and without a strong AT&T video presence.

⁴³ Following the convention in the literature, we normalized the mean utility of the outside good to 0.

⁴⁴ See, *e.g.*, Manual Trajtenberg (1989), “The Welfare Analysis of Product Innovations, with an Application to Computed Tomography Scanners,” *Journal of Political Economy*, **97**(2):444-479; and Aviv Nevo (2000), “Mergers with Differentiated Products: the Case of the Ready-To-Eat Cereal,” *The RAND Journal of Economics*, **31**(3):395-421.

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Declaration). Table A-16 shows weighted average percentage price changes and changes in consumer welfare across all DMAs[®] *inside* the AT&T video footprint. Similarly, Tables A-17 and A-18 provide pre- and post-merger weighted average prices and shares, by product, for DMAs[®] *outside* the AT&T video footprint (those in Table 3 in the Katz Declaration). Table A-19 shows weighted average percentage price changes and changes in consumer welfare across all DMAs[®] *outside* the AT&T video footprint.

45. If the simulated price and welfare changes were closed-form functions of estimated demand parameters, then one could employ a standard approach such as the delta method to obtain standard errors of simulated outcomes. However, the equilibrium prices have no closed-form expression, but rather were solved for numerically as the solution to a system of equations. In addition, the price indices, sampling weights, and market shares are all outputs of different estimation procedures, each with different sampling variation that one would have to take into account in order to obtain statistically correct standard errors of the simulated outcomes. In sum, it is not possible to solve analytically for the standard errors of the predictions of price changes and welfare changes.

2. Sensitivity analyses

46. During the process of building the demand model and simulation, we performed sensitivity analyses that involved moving the key estimated parameters for the simulation (the price sensitivity and nesting parameter) up and down by ten or 20 percent. All substantive conclusions were robust to these changes. However, because these sensitivity analyses were performed on intermediate datasets (*e.g.*, the prices of third-party providers were continuously added to the price dataset as the websites were scraped), we did not retain these sensitivity results. Because we did not expect that the refinements and additions to the data set would affect our sensitivity results, we did not run sensitivities on the final dataset used in the analysis reported in the Katz Declaration.

III. MODIFICATIONS TO THE AT&T FTTP INVESTMENT MODEL

47. AT&T uses an investment model in its ordinary course of business as a basis for considering investments in FTTP deployment.⁴⁵ Applying highly conservative assumptions, Compass Lexecon modified the model to assess how the proposed transaction would alter AT&T's incentives to invest in FTTP wireline network facilities. This section explains the specific modifications made by Compass Lexecon to the AT&T FTTP investment model.⁴⁶

48. As explained in the *Katz Declaration*, the proposed transaction can be expected to increase AT&T's incentive to expand its FTTP footprint because the merger will raise the profitability of the services offered using the expanded facilities. Specifically, the merger will increase the profitability of FTTP deployment by lowering AT&T's content acquisition costs and increasing the quality of both its video offering and its bundles containing video services, which will result in higher penetration and less subscriber churn. The post-merger firm also will internalize the loss of the profits that DIRECTV would have earned on its video services absent competition from video services offered over AT&T's FTTP facilities, which could reduce incentives to invest. The analysis described below demonstrates that the positive effects of the efficiencies derived from the merger on investment incentives would outweigh the negative ones by a large margin.

⁴⁵ See, "Overview of AT&T FTTP Investment Model," July 28, 2014. **[BEGIN AT&T CONFIDENTIAL INFORMATION]**

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⁴⁶ The AT&T investment model consists of the first-stage distribution area model and the second-stage wire center roll-up model (*see*, Overview of AT&T FTTP Investment Model). In this section, cell references to the AT&T investment model pertain to the first-stage distribution area model (**[BEGIN AT&T CONFIDENTIAL INFORMATION]** **[END AT&T CONFIDENTIAL INFORMATION]**, hereafter "FTTP Investment Model"). *See*, **[BEGIN AT&T CONFIDENTIAL INFORMATION]** **[END AT&T CONFIDENTIAL INFORMATION]** for a version of the AT&T investment model that contains highlighted cells referencing the modifications described in this section.

A. MERGER EFFICIENCIES

1. Content cost savings

49. Our analysis of AT&T investment incentives incorporates the content cost savings estimated by AT&T, which grow from **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]** **[END AT&T HIGHLY CONFIDENTIAL INFORMATION]** percent in 2015 (the partial first year after consummation of the proposed transaction) to **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]** **[END AT&T HIGHLY CONFIDENTIAL INFORMATION]** percent in 2020 and thereafter.⁴⁷ We apply these estimated content cost savings to AT&T U-verse video services delivered through FTTP and fiber to the node (“FTTN”) facilities.⁴⁸

50. We implement the estimated content cost reductions in the FTTP investment model as follows. **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]**

⁴⁷ AT&T, Project Star – Executive Briefing Book, May 16, 2014 at 47. On June 20, 2014, AT&T provided the Commission with a DVD-ROM containing the unredacted, Highly Confidential copy of the Executive Briefing Book. The Executive Briefing Book was produced as a PDF file (ATT-FCC-000000018). Content cost savings are estimated to be **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]**

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⁴⁸ While the reduction in content costs for video services delivered through FTTP makes the deployment of FTTP post-merger more profitable, the reduction in content costs for FTTN video services makes FTTN more profitable, which may reduce the incremental profitability of deploying FTTP in areas where FTTN is available. Both effects are considered in our modeling.

⁴⁹ **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]**

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[END AT&T HIGHLY CONFIDENTIAL INFORMATION] are then reduced by the dollar amount of these estimated content cost savings.⁵¹

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2. **Reduced churn for AT&T video service subscribers**

52. We also incorporate into the FTTTP investment model merger-specific improvements in the quality of AT&T video services. These improvements, which include enhancements in video

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content and the user interface, will allow AT&T to achieve lower churn, increased subscriber additions (“adds”), and higher penetration for its video services after the merger.⁵²

53. One possibility is that AT&T would be able to achieve the same churn rate for its video services as DIRECTV because it will offer comparable programming, user navigation, and other features. AT&T’s average monthly video churn is about **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION] [END AT&T HIGHLY CONFIDENTIAL INFORMATION]** percent for both FTTP and FTTN.⁵³ DIRECTV’s current average churn is 1.5 percent (as discussed below, we assume that DIRECTV’s average churn would decrease to 1.25 percent post-merger because the combined entity will offer an enhanced, fully-integrated bundle instead of the current AT&T/DIRECTV “synthetic” bundle).⁵⁴ Nevertheless, to be conservative, we assume that AT&T would be able to reduce the churn for its video product by an amount between 50 basis points and 90 basis points **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION] [END AT&T HIGHLY CONFIDENTIAL INFORMATION]**⁵⁵ We apply the same churn reduction to video services delivered through

⁵² **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]**

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⁵³ **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]**

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⁵⁴ DIRECTV Annual Report, 2013.

⁵⁵ There are other reasons why the churn of AT&T video services is likely to decrease post-merger. For instance, AT&T will have a broader geographic reach that will allow it to recapture some of the lost AT&T video subscribers that move out of the pre-merger U-verse video footprint. These and other churn-reducing effects are not captured in our modeling.

FTTP and FTTN.⁵⁶ Thus, we assume that AT&T's monthly video churn will be between approximately [BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION] [END AT&T HIGHLY CONFIDENTIAL INFORMATION] percent and [BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION] [END AT&T HIGHLY CONFIDENTIAL INFORMATION] percent post-merger.⁵⁷

3. **Reduced churn of FTTP and FTTN broadband subscribers**

54. We also account for the fact that, because it will be bundled with an improved video product, AT&T broadband delivered through FTTP and FTTN also will have lower churn.⁵⁸ We assume a reduction in FTTP and FTTN broadband churn of 25 basis points.⁵⁹

55. [BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]

⁵⁶ While the reduction in FTTP churn increases the profitability of FTTP deployment, the reduction in FTTN churn makes FTTN more profitable, which may reduce the incremental profitability of deploying FTTP in areas where FTTN is available. [BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION] [END AT&T HIGHLY CONFIDENTIAL INFORMATION]

⁵⁷ [BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]

[END AT&T HIGHLY CONFIDENTIAL INFORMATION]

⁵⁸ As above, while a reduction in FTTP broadband churn is expected to increase the profitability of FTTP deployment, the reduction in FTTN churn is expected to increase the profitability of FTTN, making it less profitable to deploy FTTP in current FTTN areas. [BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION] [END AT&T HIGHLY CONFIDENTIAL INFORMATION]

⁵⁹ FTTP and FTTN broadband churn are approximately [BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]

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AT&T HIGHLY CONFIDENTIAL INFORMATION] adjust the yearly penetration rate for FTTP and FTTN broadband to reflect the 25 basis point churn improvement. The penetration adjustment from a change in the churn rate is given by:

$$Q_t'' = Q_t + Q_{t-1} * (c - 1) + Q_{t-1}'' * (1 - c - \Delta c)$$

where Q_t'' and Q_{t-1}'' are the adjusted end-of-period penetration rates for the given year and previous year, respectively, Q_t and Q_{t-1} are the unadjusted end-of-period penetration in the given year and previous year, and c and Δc are the churn and change in churn, respectively.⁶⁰

B. CANNIBALIZATION

1. Cannibalization of DIRECTV subscribers

(a) Diverted subscribers

56. Post-merger, AT&T's investment incentives would be affected not only by the ability to attract new customers with improved FTTP service, but by the reality that some of those new customers may come from its DIRECTV business. AT&T will internalize the fact that profits from new customers would be offset to some extent by lost profits from existing DIRECTV subscribers.⁶¹ These lost profits therefore represent an opportunity cost to the deployment of FTTP. DIRECTV profits that are potentially cannibalized by the deployment of FTTP depend on two inputs. First, lost profits depend on the rate at which new AT&T video subscribers are

⁶⁰ [BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]

[END AT&T HIGHLY CONFIDENTIAL INFORMATION]

⁶¹ Even though AT&T currently provides video in most FTTN areas, there may be further cannibalization of DIRECTV profits from FTTP investments to the extent that AT&T is able to increase its video penetration with FTTP deployment compared to FTTN.

diverted from DIRECTV. Second, the cost of cannibalization depends on the lifetime value of a DIRECTV subscriber. We explain our estimation of each of these inputs in turn.

57. The diversion of interest is the share of video subscribers gained by AT&T when it deploys FTTP in a specific geographic area that are diverted from DIRECTV video services. **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]**

[END AT&T HIGHLY CONFIDENTIAL INFORMATION] Therefore, as a starting point, we assume that the diversion from DIRECTV to AT&T as a result of FTTP expansion is proportional to video subscriber shares in areas where AT&T video service is already available. The basic proportional-to-shares diversion ratio is given by:

$$D = \frac{DTV\ Share}{1 - AT\&T\ Share}$$

58. DIRECTV's video subscriber share in the areas in which AT&T U-verse video is available to at least **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]** **[END AT&T HIGHLY CONFIDENTIAL INFORMATION]** percent of households is approximately **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]** **[END AT&T HIGHLY CONFIDENTIAL INFORMATION]** percent, while AT&T's share is approximately **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]** **[END AT&T HIGHLY CONFIDENTIAL INFORMATION]** percent.⁶² Based on these shares, the diversion ratio would be **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]** **[END AT&T HIGHLY CONFIDENTIAL INFORMATION]** percent **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]** **[END AT&T HIGHLY CONFIDENTIAL INFORMATION]**.

⁶² **[BEGIN AT&T CONFIDENTIAL INFORMATION]** **[END AT&T CONFIDENTIAL INFORMATION]** Share estimates as of February 2014.

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59. The assumption that diversion is proportional to shares is a crude measure likely to overstate the actual extent of diversion between DIRECTV and AT&T.⁶³ One reason is that AT&T is unlikely to encourage switching by existing DIRECTV video subscribers to AT&T video services delivered over wireline FTTP technology. Such switching would entail high switching costs (*e.g.*, installation and acquisition costs) and disrupt the continuity in video services for a subscriber, including requiring a new installation visit. Thus, it is likely that AT&T will not encourage switching by current DIRECTV subscribers to AT&T video services delivered via wireline, unless customers have a significant preference or need for wireline services; rather, AT&T's primary target will be cable customers. Accordingly, our assumption that the share of AT&T subscriber acquisitions that come from DIRECTV is proportional to its subscriber share is highly conservative.

60. We thus consider both a diversion based upon AT&T internal share estimates and a diversion reduced by five percentage points, which yields a range of [BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION] [END AT&T HIGHLY CONFIDENTIAL INFORMATION] percent to [BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION] [END AT&T HIGHLY CONFIDENTIAL INFORMATION] percent. This range of diversion is consistent with the diversion ratio based on elasticity estimates from the demand model estimated for the merger simulation presented in the *Katz Declaration*, which indicates that diversion from AT&T video to DIRECTV video is [BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION] [END AT&T HIGHLY CONFIDENTIAL INFORMATION] to [BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION] [END AT&T HIGHLY CONFIDENTIAL INFORMATION] percent, depending on the bundle and demand model specification.⁶⁴

⁶³ See *Katz Declaration*, ¶ 129.

⁶⁴ See, *Diversions_InestParam.xlsx*.

(b) Lifetime value of a DIRECTV subscriber

61. The opportunity cost of FTTP deployment due to cannibalization of DIRECTV profits also depends on the lifetime value of a DIRECTV subscriber. This lifetime value is a function of per-subscriber revenues, one-time costs (*e.g.*, subscriber acquisition costs), recurring costs, and subscriber churn. According to DIRECTV estimates, the lifetime value (“LTV”) of a new DIRECTV subscriber in U-verse areas was **[BEGIN DIRECTV HIGHLY CONFIDENTIAL INFORMATION]** **[END DIRECTV HIGHLY CONFIDENTIAL INFORMATION]** as of December 2012; the lifetime value of an active (or current) DIRECTV subscriber (referred to as “active customer value,” or “ACV”) in U-verse areas was **[BEGIN DIRECTV HIGHLY CONFIDENTIAL INFORMATION]** **[END DIRECTV HIGHLY CONFIDENTIAL INFORMATION]**⁶⁵ We assume that gained AT&T subscribers in new FTTP areas will, on average over the entire relevant period, equally come from new DIRECTV subscribers and existing DIRECTV subscribers.⁶⁶ Based on these estimates, the average value to DIRECTV of a subscriber diverted to AT&T is **[BEGIN DIRECTV HIGHLY**

⁶⁵ See, **[BEGIN DIRECTV HIGHLY CONFIDENTIAL INFORMATION]**

[END DIRECTV HIGHLY CONFIDENTIAL INFORMATION]

⁶⁶ The 50-50 share of diverted DIRECTV subscribers that are current versus new subscribers is consistent with DIRECTV’s churn, assuming that the propensity to churn is equal across current and new subscribers. A 1.5 percent monthly churn rate implies that a starting cohort of 20 million DIRECTV subscribers will decline to 16.4 million by the end of year 1, to 13.4 million by the end of year 2, and so on. Assuming the number of DIRECTV subscribers stays the same at 20 million, subscriber adds would equal churn every year. By end of year 5, the share of subscribers that were existing subscribers at the beginning would be 37 percent, while 63 percent would be subscribers that signed up sometime during those 5 years. By year 10, these shares are 14 percent and 86 percent, respectively. The time-discounted weighted average over 10 years is approximately 43% for existing subscribers. (*See, CannibalizationCalculations.xlsx.*) The assumption that 50 percent of AT&T subscribers gained from DIRECTV will be current subscribers and 50 percent will be new subscribers is conservative because during the second half of **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]**

[END AT&T HIGHLY CONFIDENTIAL INFORMATION] most subscribers gained from DIRECTV would be new subscribers (which have relatively lower lifetime value), not current subscribers.

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[END DIRECTV HIGHLY

CONFIDENTIAL INFORMATION] We bring this value forward to 2015 and subsequent years at a yearly inflation rate of 3 percent.

62. Because the combined firm will realize efficiencies and offer more attractive, fully integrated AT&T/DIRECTV bundles, DIRECTV subscribers may be more valuable post-merger. We take into account this efficiency by assuming a lower churn for DIRECTV subscribers. In particular, we assume a 25 basis point reduction in churn (a decrease from 1.5 percent monthly to 1.25 percent monthly).⁶⁷ A lower churn increases the value of diverted DIRECTV subscribers, which increases the cannibalization effect, and reduces the profitability of FTTP investment post-merger. The reduction in churn is conservative because we assume such a reduction applies to *all* subscribers that divert from DIRECTV to AT&T. However, only a limited share of current DIRECTV subscribers bundle their video services with AT&T broadband Internet access. Even if more subscribers chose to bundle DIRECTV video services with AT&T broadband Internet access post-merger due to a better bundled offering, the assumption that there would be a churn reduction for *all* DIRECTV subscribers is highly conservative.

63. Analysis by DIRECTV shows that a 27 basis point churn improvement results in approximately **[BEGIN DIRECTV HIGHLY CONFIDENTIAL INFORMATION]** **[END DIRECTV HIGHLY CONFIDENTIAL INFORMATION]** percent higher DIRECTV subscriber lifetime value.⁶⁸ We apply this **[BEGIN DIRECTV HIGHLY CONFIDENTIAL INFORMATION]** **[END DIRECTV HIGHLY CONFIDENTIAL INFORMATION]** percent increase to the average lifetime value of a DIRECTV subscriber in the cannibalization calculation. For each AT&T video subscriber signed up, the opportunity cost due to the internalization of lost DIRECTV profits is equal to this average lifetime subscriber value multiplied by the diversion ratio. Table 1 below provides the opportunity cost from cannibalization of DIRECTV subscribers per AT&T video subscriber signed up. For instance,

⁶⁷ DIRECTV Annual Report, 2013

⁶⁸ See, **[BEGIN DIRECTV CONFIDENTIAL INFORMATION]**
DIRECTV CONFIDENTIAL INFORMATION]

[END

for every AT&T video subscriber signed up in 2015, the opportunity cost is [BEGIN DIRECTV HIGHLY CONFIDENTIAL INFORMATION] [END DIRECTV HIGHLY CONFIDENTIAL INFORMATION] assuming a diversion of [BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION] [END AT&T HIGHLY CONFIDENTIAL INFORMATION] percent.

Table 1: Opportunity Cost from Cannibalization of DIRECTV Subscribers
[BEGIN AT&T AND DIRECTV HIGHLY CONFIDENTIAL INFORMATION]

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64. We incorporate these estimates of the opportunity cost into the AT&T FTTP investment model by increasing the [BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION] [END AT&T HIGHLY CONFIDENTIAL INFORMATION] by the cannibalization amounts reflected in the table above.⁶⁹ This increase in cost is applied to each new AT&T video subscriber at the time the video subscriber is signed up.

65. The cannibalization of DIRECTV profits presented above is conservative for several reasons. First, as described above, the assumption that diversion is proportional to shares is

⁶⁹ [BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION] [END AT&T HIGHLY CONFIDENTIAL INFORMATION]

likely to overstate the actual extent of diversion from DIRECTV to AT&T because AT&T is unlikely to encourage existing DIRECTV subscribers to switch to AT&T wireline services. And, to the extent that existing DIRECTV subscribers do switch to AT&T wireline services post-merger, AT&T's cost of switching these subscribers to FTTP video likely would be lower than the pre-merger cost of acquiring brand new subscribers that is **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]**

[END AT&T HIGHLY CONFIDENTIAL INFORMATION]. Second, the post-merger increase in the value of a DIRECTV subscriber is applied to all DIRECTV subscribers that divert to AT&T video when in fact only a subset of those subscribers would bundle with AT&T broadband Internet access. Third, DIRECTV's subscriber share is projected to decrease over time and, thus, the share of subscribers that are diverted from DIRECTV also likely would decline over time instead of remaining constant, as we assume.⁷⁰

2. Cannibalization of AT&T IPDSL and legacy DSL subscribers

66. We also account for the potential for cannibalization of more valuable current AT&T IPDSL and legacy DSL subscribers as a result of the proposed merger. **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]**

[END AT&T HIGHLY CONFIDENTIAL INFORMATION]

⁷⁰ For instance, data from **[BEGIN CONFIDENTIAL INFORMATION]**

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67. We capture the potential for greater cannibalization of DSL subscribers by reducing the churn for IPDSL and legacy DSL subscribers by 25 basis points.⁷¹ AT&T estimated that the DSL churn reduction from a better-integrated bundle would be **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION] [END AT&T HIGHLY CONFIDENTIAL INFORMATION]** basis points for AT&T/DIRECTV bundle subscribers.⁷² However, only a limited share of AT&T DSL subscribers currently bundle with DIRECTV video services. Even if this share post-merger is, say, **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION] [END AT&T HIGHLY CONFIDENTIAL INFORMATION]** percent, our assumed 25 basis point reduction across all AT&T DSL subscribers would be **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]**

[END AT&T HIGHLY CONFIDENTIAL INFORMATION] basis points only for subscribers of AT&T/DIRECTV bundles.⁷³

68. As described earlier for FTTP and FTTN broadband, **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]**

[END AT&T HIGHLY CONFIDENTIAL INFORMATION] adjust the yearly end-

⁷¹ **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]**

[END AT&T HIGHLY CONFIDENTIAL INFORMATION]

⁷² AT&T, Project Star – Executive Briefing Book, May 16, 2014 at 66.

⁷³ **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]**

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of-period penetration rate for IPDSL broadband to reflect the 25 basis point churn improvement.⁷⁴

C. SUMMARY AND RESULTS

69. We run AT&T's FTTP model modified using the various combinations of parameters described above and calculate the number of customer locations that clear the hurdle rate with and without the proposed merger. These modifications include:

1. Content cost savings: **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]** **[END AT&T HIGHLY CONFIDENTIAL INFORMATION]**
2. Reduction of AT&T FTTP and FTTN video churn by 50 and 90 basis points.
3. Reduction of AT&T FTTP and FTTN broadband churn by 25 basis points.
4. Cannibalization of DIRECTV profits: diversion of **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]** **[END AT&T HIGHLY CONFIDENTIAL INFORMATION]** percent and **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]** **[END AT&T HIGHLY CONFIDENTIAL INFORMATION]** percent; 25 basis point reduction in DIRECTV video subscriber churn.
5. Reduction of AT&T IPDSL and legacy DSL churn by 25 basis points.

70. The change in customer locations that clear the IRR hurdle based on all the different combinations of the modifications listed above are shown in Table 2 below.⁷⁵ As reported in the *Katz Declaration*, the results indicate that, on net, millions of additional customer locations

⁷⁴ **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]**

[END AT&T HIGHLY CONFIDENTIAL INFORMATION]

⁷⁵ The estimates provided are incremental to the approximately **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]** **[END AT&T HIGHLY CONFIDENTIAL INFORMATION]** customer locations that clear the hurdle rate without the effects of the proposed merger. The distribution areas and wire center areas that clear and do not clear the IRR hurdle rate, as well as the estimated IRR and other output from the model, are provided in worksheets *FTTP Model Output* (for DAs) and *Wire Center Rollup* (for wire centers) contained in the second-stage wire center model files *Second Stage Wire Center Rollup - 00.xlsx* through *Second Stage Wire Center Rollup - 08.xlsx*.

would become profitable for FTTP deployment after the merger—*i.e.*, would clear the IRR hurdle rate with the merger but would not without the merger. In other words, this analysis indicates that the proposed merger would lead to substantial increases in AT&T's incentives to deploy FTTP.

Table 2: Net Effect on Customer Locations that Clear IRR Hurdle

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71. In addition to calculating the overall net impact of the proposed merger, we also calculate the incremental impact of the individual merger effects described above, categorized according to: (1) content cost savings; (2) churn reduction for AT&T video and broadband due to product quality improvements; and (3) cannibalization of DIRECTV video and AT&T IPDSL and legacy DSL subscribers, which are shown in Table 3 below.⁷⁶

⁷⁶ The distribution areas and wire center areas that clear and do not clear the IRR hurdle rate, as well as the estimated IRR and other output from the model, are provided in worksheets *FTTP Model Output* (for DAs) and *Wire Center Rollup* (for wire centers) contained in the second-stage wire center model files *Second Stage Wire Center Rollup - Cost Savings Analysis - 01.xlsx*, *Second Stage Wire Center Rollup - Cost Savings Analysis - 02.xlsx*, *Second Stage Wire Center Rollup - Cost Savings and Product Quality Analysis - 01.xlsx* through *Second Stage Wire Center Rollup - Cost Savings and Product Quality Analysis - 04.xlsx*, and *Second Stage Wire Center Rollup - 00.xlsx* through *Second Stage Wire Center Rollup - 08.xlsx*.

Table 3: Incremental Effects on Customer Locations that Clear IRR Hurdle

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72. These results are highly conservative for several reasons. The assumed cannibalization of DIRECTV profits from the deployment of FTTP is overstated for reasons discussed above. Moreover, our modifications do not take into account the impact of the enhanced AT&T video offerings on **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]**

[END AT&T HIGHLY

CONFIDENTIAL INFORMATION] which further would increase the profitability of deploying FTTP. **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]**

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We also do not incorporate into the model higher **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]**

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[END AT&T HIGHLY CONFIDENTIAL INFORMATION] as a result of AT&T video customers subscribing to NFL Sunday Ticket.⁷⁷

⁷⁷

[BEGIN DIRECTV HIGHLY CONFIDENTIAL INFORMATION]

[END DIRECTV HIGHLY CONFIDENTIAL INFORMATION]

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**APPENDIX: DATA TABLES FOR
DEMAND ESTIMATION AND MERGER SIMULATION**

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Table A-1: Estimated Product Shares - All Products

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Table A-2: Standard Errors of Estimated Product Shares - All Products

DMA®	DTV		DTV		DTV		DTV		DISH		DISH		DISH		
	CableBB	ATTBB	TelcoBB	OtherBB	noBB	CableBB	ATTBB	TelcoBB	OtherBB	noBB	CableBB	ATTBB	TelcoBB	OtherBB	
500	0.011%	0.001%	0.012%	0.004%	0.016%	0.008%	0.001%	0.009%	0.005%	0.008%	0.001%	0.001%	0.009%	0.005%	0.008%
501	0.005%	0.001%	0.005%	0.003%	0.004%	0.003%	0.001%	0.003%	0.001%	0.003%	0.001%	0.001%	0.004%	0.002%	0.001%
502	0.017%	0.001%	0.014%	0.008%	0.017%	0.009%	0.001%	0.008%	0.001%	0.009%	0.001%	0.014%	0.008%	0.008%	0.019%
503	0.022%	0.014%	0.026%	0.013%	0.033%	0.005%	0.013%	0.005%	0.017%	0.004%	0.013%	0.017%	0.004%	0.004%	0.014%
504	0.004%	0.001%	0.009%	0.001%	0.010%	0.004%	0.001%	0.004%	0.001%	0.004%	0.001%	0.003%	0.003%	0.003%	0.001%
505	0.005%	0.005%	0.004%	0.004%	0.009%	0.004%	0.004%	0.004%	0.004%	0.004%	0.005%	0.004%	0.004%	0.004%	0.010%
506	0.007%	0.000%	0.009%	0.001%	0.010%	0.004%	0.001%	0.004%	0.001%	0.004%	0.001%	0.004%	0.004%	0.001%	0.007%
507	0.020%	0.009%	0.014%	0.004%	0.025%	0.008%	0.008%	0.008%	0.008%	0.008%	0.008%	0.011%	0.008%	0.008%	0.009%
508	0.006%	0.000%	0.010%	0.000%	0.011%	0.005%	0.000%	0.005%	0.000%	0.005%	0.000%	0.003%	0.008%	0.003%	0.011%
509	0.006%	0.004%	0.014%	0.008%	0.015%	0.007%	0.007%	0.007%	0.005%	0.007%	0.005%	0.014%	0.005%	0.005%	0.017%
510	0.007%	0.006%	0.008%	0.003%	0.012%	0.005%	0.006%	0.005%	0.006%	0.006%	0.006%	0.006%	0.006%	0.002%	0.010%
511	0.005%	0.001%	0.012%	0.005%	0.013%	0.004%	0.001%	0.004%	0.001%	0.004%	0.001%	0.008%	0.007%	0.007%	0.012%
512	0.005%	0.001%	0.011%	0.002%	0.012%	0.003%	0.001%	0.003%	0.001%	0.003%	0.001%	0.006%	0.006%	0.003%	0.007%
513	0.007%	0.006%	0.007%	0.005%	0.012%	0.007%	0.007%	0.007%	0.007%	0.007%	0.007%	0.008%	0.008%	0.006%	0.015%
514	0.011%	0.000%	0.012%	0.003%	0.015%	0.004%	0.003%	0.004%	0.004%	0.004%	0.001%	0.015%	0.006%	0.001%	0.006%
515	0.006%	0.003%	0.011%	0.004%	0.012%	0.003%	0.001%	0.004%	0.003%	0.003%	0.001%	0.012%	0.007%	0.003%	0.011%
516	0.014%	0.001%	0.015%	0.001%	0.019%	0.011%	0.001%	0.011%	0.011%	0.011%	0.001%	0.013%	0.013%	0.002%	0.011%
517	0.010%	0.007%	0.007%	0.004%	0.014%	0.007%	0.004%	0.004%	0.007%	0.007%	0.004%	0.007%	0.007%	0.003%	0.004%
518	0.009%	0.008%	0.012%	0.004%	0.016%	0.005%	0.004%	0.004%	0.005%	0.005%	0.005%	0.005%	0.009%	0.006%	0.013%
519	0.010%	0.010%	0.010%	0.005%	0.017%	0.002%	0.005%	0.002%	0.006%	0.006%	0.006%	0.010%	0.010%	0.007%	0.014%
520	0.017%	0.015%	0.017%	0.012%	0.026%	0.013%	0.012%	0.013%	0.013%	0.013%	0.010%	0.005%	0.005%	0.009%	0.020%
521	0.007%	0.001%	0.007%	0.001%	0.009%	0.003%	0.001%	0.003%	0.003%	0.003%	0.001%	0.001%	0.001%	0.001%	0.005%
522	0.015%	0.015%	0.017%	0.005%	0.020%	0.011%	0.005%	0.005%	0.016%	0.016%	0.016%	0.015%	0.015%	0.015%	0.029%
523	0.007%	0.001%	0.013%	0.006%	0.015%	0.009%	0.006%	0.006%	0.001%	0.001%	0.001%	0.013%	0.013%	0.009%	0.018%
524	0.007%	0.009%	0.006%	0.004%	0.013%	0.004%	0.004%	0.004%	0.006%	0.006%	0.006%	0.007%	0.007%	0.004%	0.012%
525	0.028%	0.021%	0.024%	0.020%	0.044%	0.029%	0.020%	0.020%	0.024%	0.024%	0.021%	0.044%	0.044%	0.002%	0.053%
526	0.015%	0.002%	0.017%	0.006%	0.019%	0.017%	0.006%	0.006%	0.017%	0.017%	0.002%	0.009%	0.009%	0.008%	0.018%
527	0.008%	0.008%	0.006%	0.003%	0.012%	0.005%	0.003%	0.003%	0.007%	0.007%	0.007%	0.007%	0.007%	0.004%	0.013%
528	0.006%	0.010%	0.002%	0.004%	0.012%	0.001%	0.004%	0.004%	0.005%	0.005%	0.005%	0.001%	0.001%	0.001%	0.001%
529	0.006%	0.007%	0.008%	0.004%	0.012%	0.007%	0.004%	0.004%	0.008%	0.008%	0.004%	0.009%	0.009%	0.005%	0.014%
530	0.007%	0.010%	0.014%	0.006%	0.019%	0.008%	0.006%	0.006%	0.008%	0.008%	0.008%	0.014%	0.014%	0.006%	0.020%
531	0.014%	0.003%	0.019%	0.012%	0.017%	0.013%	0.012%	0.012%	0.013%	0.013%	0.001%	0.019%	0.019%	0.001%	0.024%
532	0.007%	0.001%	0.011%	0.004%	0.012%	0.006%	0.004%	0.004%	0.011%	0.011%	0.001%	0.010%	0.010%	0.006%	0.013%
533	0.004%	0.005%	0.001%	0.001%	0.004%	0.002%	0.001%	0.001%	0.005%	0.005%	0.002%	0.002%	0.002%	0.001%	0.008%
534	0.006%	0.006%	0.007%	0.004%	0.011%	0.005%	0.004%	0.004%	0.004%	0.004%	0.004%	0.005%	0.005%	0.001%	0.009%
535	0.008%	0.004%	0.008%	0.004%	0.012%	0.005%	0.004%	0.004%	0.008%	0.008%	0.003%	0.006%	0.006%	0.003%	0.009%
536	0.009%	0.010%	0.013%	0.005%	0.018%	0.010%	0.005%	0.005%	0.008%	0.008%	0.008%	0.011%	0.011%	0.005%	0.018%
537	0.022%	0.001%	0.018%	0.013%	0.028%	0.016%	0.013%	0.013%	0.018%	0.018%	0.002%	0.019%	0.019%	0.018%	0.023%

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Table A-2: Standard Errors of Estimated Product Shares - All Products

DMA®	DTV		DTV		DTV		DTV		DISH		DISH		DISH		
	CableBB	ATTBB	TelcoBB	OtherBB	noBB	CableBB	ATTBB	TelcoBB	OtherBB	noBB	CableBB	ATTBB	TelcoBB	OtherBB	
538	0.009%	0.001%	0.008%	0.001%	0.011%	0.005%	0.001%	0.008%	0.003%	0.010%	0.001%	0.001%	0.008%	0.003%	0.010%
539	0.008%	0.002%	0.008%	0.002%	0.011%	0.004%	0.002%	0.004%	0.004%	0.008%	0.002%	0.002%	0.004%	0.003%	0.008%
540	0.008%	0.009%	0.008%	0.008%	0.015%	0.003%	0.007%	0.009%	0.009%	0.018%	0.007%	0.007%	0.009%	0.011%	0.018%
541	0.010%	0.007%	0.009%	0.006%	0.015%	0.009%	0.006%	0.009%	0.009%	0.012%	0.006%	0.006%	0.012%	0.006%	0.019%
542	0.008%	0.006%	0.007%	0.003%	0.009%	0.005%	0.003%	0.005%	0.005%	0.011%	0.005%	0.005%	0.006%	0.002%	0.011%
543	0.010%	0.001%	0.012%	0.002%	0.010%	0.003%	0.001%	0.003%	0.003%	0.003%	0.001%	0.001%	0.003%	0.002%	0.002%
544	0.008%	0.000%	0.011%	0.003%	0.013%	0.005%	0.003%	0.005%	0.005%	0.007%	0.001%	0.001%	0.007%	0.004%	0.011%
545	0.017%	0.001%	0.018%	0.002%	0.016%	0.012%	0.001%	0.012%	0.012%	0.016%	0.001%	0.001%	0.016%	0.007%	0.022%
546	0.012%	0.010%	0.012%	0.007%	0.020%	0.010%	0.006%	0.007%	0.006%	0.009%	0.006%	0.006%	0.007%	0.008%	0.016%
547	0.010%	0.006%	0.008%	0.003%	0.014%	0.006%	0.003%	0.006%	0.005%	0.009%	0.005%	0.005%	0.009%	0.006%	0.014%
548	0.005%	0.009%	0.004%	0.003%	0.010%	0.004%	0.003%	0.004%	0.004%	0.001%	0.005%	0.004%	0.004%	0.001%	0.001%
549	0.021%	0.001%	0.024%	0.008%	0.030%	0.015%	0.002%	0.022%	0.002%	0.020%	0.002%	0.002%	0.022%	0.015%	0.020%
550	0.017%	0.009%	0.004%	0.001%	0.019%	0.013%	0.001%	0.013%	0.010%	0.018%	0.010%	0.010%	0.003%	0.001%	0.018%
551	0.008%	0.011%	0.009%	0.008%	0.013%	0.007%	0.008%	0.011%	0.011%	0.017%	0.011%	0.011%	0.013%	0.005%	0.017%
552	0.016%	0.004%	0.037%	0.005%	0.039%	0.052%	0.005%	0.039%	0.003%	0.054%	0.003%	0.003%	0.054%	0.004%	0.015%
553	0.018%	0.018%	0.017%	0.013%	0.028%	0.008%	0.013%	0.017%	0.008%	0.022%	0.011%	0.008%	0.022%	0.022%	0.021%
554	0.010%	0.005%	0.020%	0.015%	0.019%	0.007%	0.015%	0.020%	0.012%	0.020%	0.012%	0.012%	0.023%	0.013%	0.020%
555	0.006%	0.000%	0.008%	0.001%	0.009%	0.005%	0.001%	0.008%	0.001%	0.010%	0.001%	0.001%	0.007%	0.003%	0.010%
556	0.008%	0.000%	0.011%	0.006%	0.015%	0.006%	0.006%	0.011%	0.006%	0.012%	0.001%	0.001%	0.008%	0.007%	0.012%
557	0.008%	0.007%	0.011%	0.007%	0.016%	0.008%	0.007%	0.011%	0.004%	0.014%	0.004%	0.004%	0.009%	0.004%	0.014%
558	0.013%	0.003%	0.019%	0.015%	0.004%	0.009%	0.015%	0.019%	0.003%	0.023%	0.003%	0.003%	0.016%	0.018%	0.023%
559	0.022%	0.002%	0.028%	0.002%	0.035%	0.020%	0.002%	0.028%	0.002%	0.048%	0.002%	0.002%	0.048%	0.007%	0.051%
560	0.007%	0.006%	0.010%	0.004%	0.012%	0.006%	0.004%	0.010%	0.006%	0.014%	0.006%	0.006%	0.009%	0.004%	0.014%
561	0.006%	0.009%	0.005%	0.004%	0.012%	0.005%	0.004%	0.005%	0.006%	0.013%	0.006%	0.006%	0.008%	0.003%	0.013%
563	0.005%	0.006%	0.006%	0.005%	0.010%	0.005%	0.005%	0.010%	0.005%	0.013%	0.005%	0.005%	0.008%	0.006%	0.013%
564	0.011%	0.005%	0.015%	0.002%	0.018%	0.010%	0.002%	0.018%	0.004%	0.021%	0.004%	0.004%	0.016%	0.005%	0.021%
565	0.027%	0.001%	0.025%	0.004%	0.035%	0.009%	0.004%	0.035%	0.001%	0.044%	0.001%	0.001%	0.010%	0.011%	0.014%
566	0.008%	0.001%	0.009%	0.005%	0.009%	0.004%	0.005%	0.009%	0.001%	0.010%	0.001%	0.001%	0.009%	0.001%	0.010%
567	0.008%	0.009%	0.008%	0.004%	0.014%	0.006%	0.004%	0.008%	0.006%	0.013%	0.006%	0.006%	0.007%	0.003%	0.013%
569	0.019%	0.001%	0.020%	0.016%	0.030%	0.006%	0.016%	0.030%	0.001%	0.029%	0.001%	0.001%	0.027%	0.006%	0.029%
570	0.013%	0.007%	0.013%	0.008%	0.014%	0.008%	0.008%	0.014%	0.006%	0.022%	0.006%	0.006%	0.009%	0.008%	0.002%
571	0.007%	0.002%	0.011%	0.004%	0.013%	0.004%	0.004%	0.013%	0.001%	0.012%	0.001%	0.001%	0.009%	0.003%	0.012%
573	0.010%	0.001%	0.017%	0.010%	0.020%	0.008%	0.010%	0.020%	0.001%	0.019%	0.001%	0.001%	0.015%	0.009%	0.019%
574	0.007%	0.001%	0.015%	0.005%	0.016%	0.007%	0.005%	0.016%	0.001%	0.020%	0.001%	0.001%	0.018%	0.003%	0.020%
575	0.010%	0.008%	0.010%	0.007%	0.015%	0.007%	0.007%	0.015%	0.006%	0.011%	0.006%	0.006%	0.011%	0.002%	0.015%
576	0.017%	0.003%	0.022%	0.001%	0.026%	0.009%	0.001%	0.026%	0.002%	0.033%	0.002%	0.002%	0.009%	0.003%	0.003%
577	0.011%	0.002%	0.013%	0.004%	0.015%	0.007%	0.004%	0.015%	0.002%	0.012%	0.002%	0.002%	0.011%	0.003%	0.012%
581	0.015%	0.009%	0.016%	0.001%	0.007%	0.022%	0.001%	0.007%	0.008%	0.038%	0.008%	0.008%	0.028%	0.015%	0.038%

REDACTED - FOR PUBLIC INSPECTION

Table A-2: Standard Errors of Estimated Product Shares - All Products

DMA®	DTV		DTV		DTV		DTV		DISH		DISH		DISH	
	CableBB	ATTBB	TelcoBB	OtherBB	noBB	CableBB	ATTBB	TelcoBB	OtherBB	noBB	CableBB	ATTBB	TelcoBB	OtherBB
582	0.020%	0.006%	0.020%	0.001%	0.003%	0.007%	0.003%	0.003%	0.021%	0.005%	0.024%	0.003%	0.021%	0.005%
583	0.018%	0.006%	0.008%	0.018%	0.008%	0.021%	0.008%	0.003%	0.021%	0.002%	0.031%	0.003%	0.021%	0.002%
584	0.002%	0.001%	0.020%	0.018%	0.026%	0.007%	0.001%	0.001%	0.029%	0.013%	0.032%	0.001%	0.029%	0.013%
588	0.010%	0.009%	0.015%	0.002%	0.018%	0.010%	0.010%	0.010%	0.011%	0.007%	0.016%	0.011%	0.010%	0.007%
592	0.014%	0.018%	0.017%	0.004%	0.019%	0.014%	0.015%	0.015%	0.027%	0.014%	0.035%	0.014%	0.027%	0.014%
596	0.017%	0.009%	0.017%	0.012%	0.026%	0.012%	0.009%	0.009%	0.019%	0.003%	0.007%	0.003%	0.019%	0.003%
597	0.046%	0.005%	0.032%	0.001%	0.055%	0.011%	0.020%	0.020%	0.003%	0.003%	0.024%	0.003%	0.003%	0.003%
598	0.028%	0.001%	0.029%	0.007%	0.039%	0.031%	0.002%	0.002%	0.035%	0.003%	0.028%	0.003%	0.035%	0.003%
600	0.024%	0.018%	0.011%	0.008%	0.030%	0.021%	0.008%	0.008%	0.004%	0.011%	0.025%	0.004%	0.011%	0.011%
602	0.005%	0.009%	0.005%	0.004%	0.012%	0.006%	0.006%	0.006%	0.004%	0.006%	0.013%	0.004%	0.004%	0.006%
603	0.012%	0.015%	0.015%	0.004%	0.024%	0.013%	0.015%	0.015%	0.027%	0.013%	0.035%	0.013%	0.027%	0.013%
604	0.009%	0.008%	0.015%	0.009%	0.020%	0.009%	0.009%	0.009%	0.019%	0.009%	0.025%	0.009%	0.019%	0.009%
605	0.003%	0.009%	0.009%	0.004%	0.013%	0.004%	0.010%	0.010%	0.011%	0.009%	0.019%	0.011%	0.011%	0.009%
606	0.026%	0.002%	0.036%	0.008%	0.043%	0.009%	0.001%	0.001%	0.046%	0.024%	0.051%	0.001%	0.046%	0.024%
609	0.007%	0.007%	0.007%	0.001%	0.011%	0.006%	0.006%	0.006%	0.007%	0.004%	0.012%	0.007%	0.004%	0.004%
610	0.016%	0.010%	0.011%	0.009%	0.016%	0.013%	0.007%	0.007%	0.010%	0.011%	0.022%	0.010%	0.010%	0.011%
611	0.009%	0.001%	0.017%	0.001%	0.019%	0.005%	0.002%	0.002%	0.012%	0.008%	0.014%	0.002%	0.012%	0.008%
612	0.020%	0.017%	0.012%	0.008%	0.028%	0.011%	0.013%	0.013%	0.019%	0.008%	0.027%	0.019%	0.019%	0.008%
613	0.005%	0.002%	0.010%	0.004%	0.011%	0.005%	0.001%	0.001%	0.008%	0.005%	0.012%	0.001%	0.008%	0.005%
616	0.006%	0.005%	0.005%	0.004%	0.010%	0.005%	0.005%	0.005%	0.006%	0.004%	0.012%	0.005%	0.006%	0.004%
617	0.006%	0.006%	0.003%	0.003%	0.008%	0.005%	0.005%	0.005%	0.003%	0.002%	0.009%	0.003%	0.003%	0.002%
618	0.008%	0.008%	0.005%	0.005%	0.012%	0.006%	0.006%	0.006%	0.004%	0.004%	0.011%	0.006%	0.004%	0.004%
619	0.005%	0.007%	0.014%	0.005%	0.016%	0.007%	0.008%	0.008%	0.014%	0.009%	0.020%	0.014%	0.009%	0.009%
622	0.010%	0.011%	0.003%	0.004%	0.015%	0.005%	0.007%	0.007%	0.001%	0.005%	0.011%	0.001%	0.001%	0.005%
623	0.006%	0.007%	0.004%	0.005%	0.011%	0.005%	0.005%	0.005%	0.006%	0.005%	0.012%	0.005%	0.006%	0.005%
624	0.013%	0.001%	0.013%	0.004%	0.018%	0.016%	0.001%	0.001%	0.020%	0.007%	0.026%	0.001%	0.020%	0.007%
625	0.012%	0.007%	0.010%	0.008%	0.017%	0.007%	0.006%	0.006%	0.008%	0.009%	0.016%	0.008%	0.008%	0.009%
626	0.005%	0.020%	0.005%	0.005%	0.005%	0.041%	0.027%	0.027%	0.006%	0.045%	0.030%	0.006%	0.006%	0.045%
627	0.019%	0.019%	0.003%	0.006%	0.007%	0.012%	0.023%	0.023%	0.017%	0.025%	0.037%	0.017%	0.017%	0.025%
628	0.018%	0.017%	0.003%	0.005%	0.010%	0.023%	0.025%	0.025%	0.022%	0.046%	0.046%	0.022%	0.022%	0.046%
630	0.009%	0.011%	0.009%	0.007%	0.017%	0.006%	0.008%	0.008%	0.007%	0.014%	0.014%	0.007%	0.007%	0.014%
631	0.023%	0.006%	0.029%	0.023%	0.009%	0.010%	0.006%	0.006%	0.039%	0.033%	0.036%	0.039%	0.033%	0.033%
632	0.013%	0.009%	0.015%	0.007%	0.021%	0.009%	0.009%	0.009%	0.014%	0.010%	0.020%	0.014%	0.010%	0.010%
633	0.011%	0.012%	0.005%	0.003%	0.008%	0.024%	0.023%	0.023%	0.010%	0.010%	0.029%	0.010%	0.010%	0.010%
634	0.013%	0.012%	0.014%	0.012%	0.024%	0.015%	0.011%	0.011%	0.017%	0.002%	0.026%	0.017%	0.017%	0.002%
635	0.006%	0.006%	0.005%	0.006%	0.011%	0.004%	0.004%	0.004%	0.003%	0.007%	0.011%	0.003%	0.003%	0.007%
636	0.021%	0.020%	0.003%	0.010%	0.029%	0.020%	0.019%	0.019%	0.001%	0.009%	0.029%	0.001%	0.001%	0.009%
637	0.008%	0.001%	0.013%	0.007%	0.016%	0.004%	0.001%	0.001%	0.011%	0.004%	0.013%	0.011%	0.011%	0.004%

REDACTED - FOR PUBLIC INSPECTION

Table A-2: Standard Errors of Estimated Product Shares - All Products

DMA®	DTV		DTV		DTV		DTV		DISH		DISH		DISH	
	CableBB	ATTBB	TelcoBB	OtherBB	noBB	CableBB	ATTBB	TelcoBB	OtherBB	noBB	CableBB	ATTBB	TelcoBB	OtherBB
638	0.011%	0.013%	0.003%	0.003%	0.011%	0.042%	0.017%	0.033%	0.033%	0.045%	0.017%	0.017%	0.049%	0.033%
639	0.007%	0.018%	0.007%	0.007%	0.022%	0.017%	0.016%	0.022%	0.019%	0.004%	0.016%	0.016%	0.022%	0.019%
640	0.008%	0.011%	0.007%	0.005%	0.015%	0.005%	0.008%	0.003%	0.005%	0.013%	0.008%	0.008%	0.003%	0.005%
641	0.008%	0.007%	0.006%	0.005%	0.011%	0.006%	0.005%	0.004%	0.005%	0.012%	0.005%	0.005%	0.004%	0.005%
642	0.017%	0.019%	0.016%	0.014%	0.031%	0.013%	0.006%	0.015%	0.013%	0.003%	0.006%	0.006%	0.015%	0.013%
643	0.059%	0.042%	0.050%	0.047%	0.003%	0.024%	0.006%	0.019%	0.005%	0.005%	0.006%	0.006%	0.019%	0.005%
644	0.029%	0.028%	0.004%	0.004%	0.034%	0.011%	0.027%	0.035%	0.019%	0.037%	0.027%	0.027%	0.035%	0.019%
647	0.035%	0.035%	0.007%	0.016%	0.007%	0.016%	0.008%	0.005%	0.016%	0.027%	0.008%	0.008%	0.005%	0.016%
648	0.011%	0.009%	0.009%	0.005%	0.016%	0.006%	0.008%	0.009%	0.008%	0.016%	0.008%	0.008%	0.009%	0.008%
649	0.012%	0.012%	0.004%	0.009%	0.018%	0.010%	0.010%	0.012%	0.006%	0.017%	0.010%	0.010%	0.012%	0.006%
650	0.007%	0.008%	0.003%	0.004%	0.011%	0.004%	0.005%	0.006%	0.004%	0.013%	0.005%	0.005%	0.006%	0.004%
651	0.005%	0.006%	0.010%	0.013%	0.017%	0.018%	0.012%	0.014%	0.013%	0.029%	0.012%	0.012%	0.014%	0.013%
652	0.009%	0.000%	0.009%	0.004%	0.013%	0.007%	0.000%	0.009%	0.003%	0.013%	0.000%	0.000%	0.009%	0.003%
656	0.017%	0.013%	0.008%	0.004%	0.018%	0.013%	0.005%	0.019%	0.011%	0.026%	0.005%	0.005%	0.019%	0.011%
657	0.018%	0.024%	0.013%	0.023%	0.037%	0.034%	0.019%	0.001%	0.037%	0.051%	0.019%	0.001%	0.019%	0.037%
658	0.004%	0.005%	0.007%	0.006%	0.010%	0.005%	0.004%	0.007%	0.004%	0.012%	0.004%	0.004%	0.007%	0.004%
659	0.006%	0.007%	0.005%	0.006%	0.012%	0.006%	0.007%	0.006%	0.006%	0.013%	0.007%	0.007%	0.006%	0.006%
661	0.020%	0.003%	0.017%	0.004%	0.004%	0.018%	0.003%	0.049%	0.033%	0.053%	0.003%	0.003%	0.049%	0.033%
662	0.018%	0.017%	0.024%	0.001%	0.033%	0.009%	0.020%	0.047%	0.025%	0.054%	0.020%	0.020%	0.047%	0.025%
669	0.007%	0.003%	0.008%	0.003%	0.011%	0.006%	0.004%	0.008%	0.005%	0.013%	0.004%	0.004%	0.008%	0.005%
670	0.014%	0.005%	0.015%	0.014%	0.024%	0.015%	0.007%	0.015%	0.010%	0.024%	0.007%	0.007%	0.015%	0.010%
671	0.006%	0.008%	0.006%	0.006%	0.013%	0.004%	0.008%	0.007%	0.005%	0.014%	0.008%	0.008%	0.007%	0.005%
673	0.022%	0.024%	0.022%	0.014%	0.039%	0.012%	0.024%	0.012%	0.012%	0.031%	0.024%	0.024%	0.012%	0.012%
675	0.015%	0.009%	0.015%	0.003%	0.022%	0.007%	0.007%	0.008%	0.006%	0.016%	0.007%	0.007%	0.008%	0.006%
676	0.011%	0.002%	0.017%	0.010%	0.022%	0.007%	0.002%	0.014%	0.006%	0.018%	0.002%	0.002%	0.014%	0.006%
678	0.008%	0.010%	0.006%	0.006%	0.014%	0.007%	0.008%	0.007%	0.006%	0.006%	0.008%	0.008%	0.007%	0.006%
679	0.008%	0.000%	0.012%	0.004%	0.014%	0.005%	0.000%	0.012%	0.005%	0.016%	0.000%	0.000%	0.012%	0.005%
682	0.013%	0.005%	0.013%	0.007%	0.018%	0.009%	0.003%	0.014%	0.005%	0.018%	0.003%	0.003%	0.014%	0.005%
686	0.012%	0.010%	0.011%	0.008%	0.017%	0.009%	0.008%	0.008%	0.001%	0.008%	0.008%	0.008%	0.008%	0.001%
687	0.001%	0.002%	0.026%	0.001%	0.026%	0.002%	0.007%	0.012%	0.002%	0.002%	0.007%	0.007%	0.012%	0.002%
691	0.016%	0.014%	0.011%	0.010%	0.024%	0.009%	0.012%	0.008%	0.006%	0.019%	0.012%	0.012%	0.008%	0.006%
692	0.023%	0.022%	0.013%	0.001%	0.033%	0.010%	0.022%	0.007%	0.005%	0.026%	0.022%	0.022%	0.007%	0.005%
693	0.009%	0.010%	0.009%	0.006%	0.017%	0.007%	0.010%	0.013%	0.005%	0.026%	0.010%	0.010%	0.013%	0.005%
698	0.018%	0.015%	0.018%	0.014%	0.019%	0.012%	0.007%	0.020%	0.018%	0.023%	0.007%	0.007%	0.020%	0.018%
702	0.008%	0.003%	0.013%	0.003%	0.015%	0.007%	0.002%	0.011%	0.006%	0.015%	0.002%	0.002%	0.011%	0.006%
705	0.007%	0.002%	0.011%	0.010%	0.015%	0.014%	0.002%	0.002%	0.006%	0.021%	0.002%	0.002%	0.014%	0.006%
709	0.009%	0.008%	0.015%	0.007%	0.020%	0.012%	0.009%	0.014%	0.007%	0.022%	0.009%	0.009%	0.014%	0.007%
710	0.028%	0.032%	0.021%	0.007%	0.047%	0.029%	0.023%	0.002%	0.007%	0.037%	0.023%	0.002%	0.002%	0.007%

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Table A-2: Standard Errors of Estimated Product Shares - All Products

DMA®	DTV		DTV		DTV		DTV		DISH		DISH		DISH	
	CableBB	ATTBB	TelcoBB	OtherBB	noBB	CableBB	ATTBB	TelcoBB	OtherBB	noBB	CableBB	ATTBB	TelcoBB	OtherBB
711	0.048%	0.058%	0.004%	0.004%	0.069%	0.005%	0.051%	0.002%	0.019%	0.054%				
716	0.016%	0.013%	0.002%	0.001%	0.020%	0.011%	0.009%	0.002%	0.006%	0.017%				
717	0.007%	0.014%	0.021%	0.020%	0.004%	0.025%	0.020%	0.043%	0.036%	0.056%				
718	0.012%	0.018%	0.007%	0.007%	0.024%	0.007%	0.012%	0.001%	0.007%	0.018%				
722	0.010%	0.001%	0.015%	0.009%	0.019%	0.009%	0.004%	0.020%	0.008%	0.022%				
724	0.005%	0.001%	0.009%	0.007%	0.010%	0.003%	0.001%	0.013%	0.009%	0.018%				
725	0.002%	0.001%	0.014%	0.005%	0.015%	0.003%	0.001%	0.015%	0.007%	0.018%				
734	0.028%	0.011%	0.033%	0.001%	0.044%	0.027%	0.007%	0.027%	0.020%	0.041%				
736	0.008%	0.019%	0.008%	0.008%	0.022%	0.004%	0.023%	0.027%	0.038%	0.050%				
737	0.024%	0.001%	0.018%	0.006%	0.030%	0.019%	0.003%	0.018%	0.015%	0.004%				
740	0.002%	0.002%	0.021%	0.002%	0.021%	0.002%	0.002%	0.020%	0.020%	0.029%				
743	0.007%	0.004%	0.009%	0.010%	0.009%	0.011%	0.002%	0.017%	0.007%	0.021%				
744	0.004%	0.001%	0.005%	0.001%	0.007%	0.004%	0.001%	0.005%	0.004%	0.001%				
745	0.004%	0.003%	0.025%	0.004%	0.026%	0.005%	0.002%	0.010%	0.010%	0.016%				
746	0.035%	0.025%	0.001%	0.001%	0.040%	0.017%	0.017%	0.001%	0.006%	0.026%				
747	0.013%	0.004%	0.014%	0.020%	0.005%	0.004%	0.003%	0.003%	0.013%	0.016%				
749	0.041%	0.030%	0.005%	0.005%	0.046%	0.024%	0.008%	0.015%	0.006%	0.006%				
751	0.006%	0.000%	0.013%	0.007%	0.015%	0.006%	0.000%	0.010%	0.006%	0.013%				
752	0.008%	0.001%	0.015%	0.006%	0.016%	0.005%	0.001%	0.010%	0.006%	0.013%				
753	0.010%	0.000%	0.013%	0.006%	0.016%	0.006%	0.000%	0.007%	0.003%	0.012%				
754	0.012%	0.008%	0.024%	0.004%	0.027%	0.004%	0.003%	0.027%	0.012%	0.031%				
755	0.014%	0.004%	0.017%	0.011%	0.005%	0.029%	0.003%	0.038%	0.022%	0.032%				
756	0.008%	0.001%	0.022%	0.012%	0.025%	0.012%	0.001%	0.025%	0.013%	0.030%				
757	0.009%	0.001%	0.019%	0.008%	0.021%	0.005%	0.001%	0.012%	0.005%	0.015%				
758	0.009%	0.002%	0.020%	0.019%	0.003%	0.021%	0.001%	0.038%	0.024%	0.046%				
759	0.022%	0.003%	0.013%	0.021%	0.005%	0.011%	0.002%	0.053%	0.038%	0.063%				
760	0.004%	0.003%	0.046%	0.014%	0.046%	0.019%	0.002%	0.068%	0.019%	0.068%				
762	0.005%	0.001%	0.023%	0.010%	0.024%	0.006%	0.001%	0.032%	0.018%	0.034%				
764	0.019%	0.002%	0.020%	0.007%	0.022%	0.019%	0.002%	0.027%	0.017%	0.025%				
765	0.014%	0.009%	0.015%	0.003%	0.021%	0.007%	0.009%	0.009%	0.005%	0.015%				
766	0.011%	0.007%	0.012%	0.011%	0.011%	0.001%	0.003%	0.040%	0.013%	0.042%				
767	0.005%	0.004%	0.014%	0.005%	0.005%	0.051%	0.002%	0.074%	0.066%	0.071%				
770	0.005%	0.001%	0.011%	0.007%	0.013%	0.004%	0.001%	0.010%	0.005%	0.013%				
771	0.026%	0.008%	0.025%	0.002%	0.035%	0.028%	0.022%	0.013%	0.004%	0.033%				
773	0.002%	0.002%	0.023%	0.020%	0.030%	0.021%	0.003%	0.024%	0.014%	0.004%				
789	0.009%	0.000%	0.012%	0.007%	0.015%	0.006%	0.000%	0.008%	0.005%	0.013%				
790	0.008%	0.002%	0.015%	0.007%	0.017%	0.005%	0.001%	0.010%	0.006%	0.012%				
798	0.001%	0.003%	0.001%	0.001%	0.001%	0.002%	0.003%	0.002%	0.002%	0.002%				

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Table A-2: Standard Errors of Estimated Product Shares - All Products

DMA®	DTV		DTV		DTV		DTV		DISH		DISH		DISH		
	CableBB	ATTBB	TelcoBB	OtherBB	noBB	CableBB	ATTBB	TelcoBB	OtherBB	noBB	CableBB	ATTBB	TelcoBB	OtherBB	
800	0.015%	0.018%	0.014%	0.007%	0.019%	0.009%	0.007%	0.011%	0.004%	0.006%	0.007%	0.011%	0.011%	0.004%	0.006%
801	0.008%	0.001%	0.012%	0.006%	0.010%	0.008%	0.001%	0.011%	0.008%	0.001%	0.001%	0.011%	0.011%	0.006%	0.015%
802	0.030%	0.026%	0.016%	0.003%	0.035%	0.036%	0.011%	0.012%	0.036%	0.011%	0.005%	0.012%	0.012%	0.002%	0.040%
803	0.010%	0.008%	0.008%	0.006%	0.015%	0.005%	0.005%	0.007%	0.005%	0.005%	0.005%	0.007%	0.007%	0.002%	0.012%
804	0.013%	0.003%	0.013%	0.002%	0.002%	0.012%	0.001%	0.011%	0.012%	0.001%	0.001%	0.011%	0.011%	0.009%	0.003%
807	0.005%	0.008%	0.001%	0.006%	0.008%	0.004%	0.006%	0.005%	0.004%	0.006%	0.006%	0.005%	0.005%	0.002%	0.002%
810	0.013%	0.002%	0.015%	0.006%	0.020%	0.013%	0.001%	0.017%	0.013%	0.001%	0.001%	0.017%	0.017%	0.011%	0.023%
811	0.010%	0.011%	0.008%	0.008%	0.010%	0.012%	0.002%	0.010%	0.012%	0.010%	0.012%	0.010%	0.010%	0.005%	0.018%
813	0.018%	0.001%	0.018%	0.011%	0.025%	0.015%	0.002%	0.015%	0.015%	0.015%	0.002%	0.015%	0.015%	0.015%	0.025%
819	0.006%	0.001%	0.009%	0.003%	0.011%	0.004%	0.001%	0.007%	0.004%	0.001%	0.001%	0.007%	0.007%	0.003%	0.010%
820	0.006%	0.002%	0.010%	0.004%	0.012%	0.004%	0.001%	0.004%	0.004%	0.001%	0.001%	0.008%	0.008%	0.003%	0.011%
821	0.001%	0.009%	0.035%	0.027%	0.042%	0.002%	0.004%	0.019%	0.002%	0.004%	0.004%	0.019%	0.019%	0.017%	0.005%
825	0.008%	0.007%	0.000%	0.001%	0.010%	0.005%	0.001%	0.000%	0.005%	0.005%	0.005%	0.000%	0.000%	0.000%	0.006%
828	0.011%	0.015%	0.007%	0.010%	0.020%	0.012%	0.010%	0.012%	0.012%	0.010%	0.012%	0.001%	0.001%	0.009%	0.020%
839	0.011%	0.001%	0.011%	0.006%	0.015%	0.006%	0.006%	0.007%	0.006%	0.015%	0.001%	0.007%	0.007%	0.004%	0.007%
855	0.017%	0.012%	0.014%	0.003%	0.015%	0.016%	0.003%	0.011%	0.016%	0.015%	0.011%	0.008%	0.008%	0.003%	0.020%
862	0.007%	0.010%	0.006%	0.003%	0.013%	0.006%	0.003%	0.006%	0.006%	0.013%	0.009%	0.006%	0.006%	0.004%	0.014%
866	0.010%	0.013%	0.008%	0.005%	0.018%	0.008%	0.005%	0.008%	0.008%	0.018%	0.010%	0.009%	0.009%	0.005%	0.016%
868	0.017%	0.020%	0.008%	0.016%	0.028%	0.018%	0.016%	0.018%	0.018%	0.028%	0.020%	0.018%	0.018%	0.006%	0.030%
881	0.006%	0.001%	0.012%	0.008%	0.014%	0.006%	0.008%	0.014%	0.006%	0.014%	0.001%	0.014%	0.014%	0.009%	0.018%

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Table A-2: Standard Errors of Estimated Product Shares - All Products

DMA®	Cable		Cable		Cable		Cable		ATT		ATT		ATT	
	CableBB	ATTBB	TelcoBB	OtherBB	noBB	OtherBB	noBB	CableBB	ATTBB	CableBB	OtherBB	noBB	ATTBB	noBB
500	0.027%	0.000%	0.010%	0.006%	0.027%	0.006%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
501	0.025%	0.001%	0.012%	0.004%	0.026%	0.004%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
502	0.043%	0.001%	0.012%	0.003%	0.042%	0.003%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
503	0.039%	0.013%	0.010%	0.001%	0.048%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
504	0.023%	0.000%	0.011%	0.003%	0.025%	0.003%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
505	0.018%	0.004%	0.002%	0.011%	0.019%	0.011%	0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.002%
506	0.022%	0.000%	0.010%	0.001%	0.025%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
507	0.032%	0.010%	0.009%	0.002%	0.031%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
508	0.020%	0.000%	0.010%	0.003%	0.021%	0.003%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
509	0.021%	0.003%	0.009%	0.006%	0.026%	0.006%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
510	0.020%	0.008%	0.005%	0.000%	0.021%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
511	0.023%	0.001%	0.011%	0.002%	0.026%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
512	0.022%	0.001%	0.010%	0.001%	0.020%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
513	0.020%	0.007%	0.003%	0.002%	0.021%	0.002%	0.000%	0.002%	0.000%	0.000%	0.001%	0.000%	0.003%	0.003%
514	0.021%	0.000%	0.010%	0.001%	0.020%	0.001%	0.000%	0.001%	0.000%	0.000%	0.001%	0.000%	0.003%	0.003%
515	0.018%	0.003%	0.009%	0.000%	0.019%	0.000%	0.000%	0.001%	0.000%	0.000%	0.002%	0.000%	0.002%	0.002%
516	0.032%	0.001%	0.014%	0.001%	0.046%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
517	0.018%	0.005%	0.007%	0.001%	0.016%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
518	0.019%	0.006%	0.008%	0.001%	0.018%	0.001%	0.000%	0.000%	0.000%	0.000%	0.002%	0.000%	0.002%	0.002%
519	0.028%	0.008%	0.005%	0.001%	0.029%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
520	0.034%	0.013%	0.003%	0.001%	0.034%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
521	0.025%	0.000%	0.008%	0.000%	0.025%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
522	0.049%	0.012%	0.001%	0.001%	0.050%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
523	0.021%	0.001%	0.010%	0.001%	0.019%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
524	0.016%	0.006%	0.003%	0.003%	0.013%	0.003%	0.000%	0.002%	0.000%	0.000%	0.002%	0.000%	0.002%	0.002%
525	0.032%	0.025%	0.020%	0.002%	0.003%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
526	0.058%	0.001%	0.026%	0.001%	0.059%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
527	0.017%	0.007%	0.005%	0.002%	0.016%	0.002%	0.000%	0.001%	0.000%	0.000%	0.001%	0.000%	0.001%	0.001%
528	0.019%	0.010%	0.002%	0.003%	0.024%	0.003%	0.000%	0.001%	0.000%	0.000%	0.001%	0.000%	0.001%	0.001%
529	0.020%	0.006%	0.003%	0.001%	0.021%	0.001%	0.000%	0.001%	0.000%	0.000%	0.002%	0.000%	0.002%	0.002%
530	0.029%	0.006%	0.015%	0.001%	0.032%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
531	0.042%	0.001%	0.019%	0.009%	0.047%	0.009%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
532	0.023%	0.000%	0.014%	0.000%	0.020%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
533	0.022%	0.009%	0.004%	0.003%	0.023%	0.003%	0.000%	0.003%	0.000%	0.000%	0.002%	0.000%	0.003%	0.003%
534	0.019%	0.004%	0.004%	0.002%	0.020%	0.002%	0.000%	0.000%	0.000%	0.000%	0.001%	0.000%	0.001%	0.001%
535	0.019%	0.005%	0.006%	0.001%	0.019%	0.001%	0.000%	0.001%	0.000%	0.000%	0.001%	0.000%	0.001%	0.001%
536	0.032%	0.009%	0.002%	0.005%	0.034%	0.005%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
537	0.027%	0.001%	0.015%	0.004%	0.023%	0.004%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%

REDACTED - FOR PUBLIC INSPECTION

Table A-2: Standard Errors of Estimated Product Shares - All Products

DMA®	Cable		Cable		Cable		Cable		ATT		ATT		ATT	
	CableBB	ATTBB	TelcoBB	OtherBB	noBB	CableBB	OtherBB	noBB	CableBB	ATTBB	OtherBB	noBB	CableBB	ATTBB
538	0.022%	0.001%	0.012%	0.000%	0.022%	0.000%	0.000%	0.022%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
539	0.023%	0.002%	0.007%	0.000%	0.023%	0.000%	0.000%	0.023%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
540	0.026%	0.008%	0.006%	0.004%	0.028%	0.000%	0.000%	0.028%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
541	0.023%	0.006%	0.009%	0.003%	0.030%	0.000%	0.000%	0.030%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
542	0.015%	0.005%	0.005%	0.004%	0.010%	0.000%	0.000%	0.010%	0.001%	0.000%	0.000%	0.000%	0.000%	0.001%
543	0.033%	0.000%	0.018%	0.001%	0.029%	0.000%	0.000%	0.029%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
544	0.022%	0.000%	0.010%	0.003%	0.024%	0.000%	0.000%	0.024%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
545	0.021%	0.001%	0.016%	0.001%	0.011%	0.000%	0.000%	0.011%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
546	0.026%	0.006%	0.007%	0.004%	0.026%	0.000%	0.000%	0.026%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
547	0.021%	0.007%	0.010%	0.005%	0.019%	0.000%	0.000%	0.019%	0.001%	0.000%	0.000%	0.001%	0.000%	0.001%
548	0.023%	0.011%	0.005%	0.001%	0.025%	0.000%	0.000%	0.025%	0.001%	0.000%	0.000%	0.001%	0.000%	0.003%
549	0.033%	0.001%	0.022%	0.002%	0.024%	0.000%	0.000%	0.024%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
550	0.038%	0.006%	0.002%	0.002%	0.038%	0.000%	0.000%	0.038%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
551	0.025%	0.009%	0.002%	0.013%	0.025%	0.000%	0.000%	0.025%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
552	0.095%	0.002%	0.061%	0.002%	0.104%	0.000%	0.000%	0.104%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
553	0.042%	0.018%	0.004%	0.001%	0.043%	0.000%	0.000%	0.043%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
554	0.058%	0.012%	0.027%	0.014%	0.056%	0.000%	0.000%	0.056%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
555	0.025%	0.000%	0.009%	0.004%	0.027%	0.000%	0.000%	0.027%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
556	0.022%	0.000%	0.006%	0.005%	0.019%	0.000%	0.000%	0.019%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
557	0.022%	0.006%	0.006%	0.000%	0.024%	0.000%	0.000%	0.024%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
558	0.052%	0.002%	0.037%	0.028%	0.002%	0.000%	0.000%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
559	0.064%	0.001%	0.034%	0.001%	0.067%	0.000%	0.000%	0.067%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
560	0.019%	0.005%	0.007%	0.004%	0.019%	0.000%	0.000%	0.019%	0.001%	0.000%	0.000%	0.001%	0.000%	0.003%
561	0.017%	0.008%	0.004%	0.003%	0.017%	0.000%	0.000%	0.017%	0.001%	0.000%	0.000%	0.001%	0.000%	0.003%
563	0.018%	0.006%	0.004%	0.005%	0.020%	0.000%	0.000%	0.020%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
564	0.027%	0.002%	0.012%	0.000%	0.028%	0.000%	0.000%	0.028%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
565	0.026%	0.001%	0.017%	0.003%	0.019%	0.000%	0.000%	0.019%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
566	0.022%	0.000%	0.011%	0.005%	0.021%	0.000%	0.000%	0.021%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
567	0.016%	0.004%	0.003%	0.000%	0.021%	0.000%	0.000%	0.021%	0.001%	0.000%	0.000%	0.001%	0.000%	0.002%
569	0.048%	0.001%	0.021%	0.001%	0.050%	0.000%	0.000%	0.050%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
570	0.038%	0.008%	0.012%	0.002%	0.038%	0.000%	0.000%	0.038%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
571	0.023%	0.001%	0.011%	0.000%	0.024%	0.000%	0.000%	0.024%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
573	0.023%	0.003%	0.010%	0.003%	0.025%	0.000%	0.000%	0.025%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
574	0.020%	0.001%	0.015%	0.004%	0.021%	0.000%	0.000%	0.021%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
575	0.028%	0.007%	0.009%	0.004%	0.038%	0.000%	0.000%	0.038%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
576	0.039%	0.001%	0.015%	0.001%	0.041%	0.000%	0.000%	0.041%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
577	0.023%	0.001%	0.015%	0.005%	0.025%	0.000%	0.000%	0.025%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
581	0.047%	0.005%	0.026%	0.001%	0.049%	0.000%	0.000%	0.049%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%

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Table A-2: Standard Errors of Estimated Product Shares - All Products

DMA®	Cable		Cable		Cable		Cable		ATT		ATT		ATT	
	CableBB	ATTBB	TelcoBB	OtherBB	noBB	OtherBB	noBB	CableBB	ATTBB	CableBB	ATTBB	OtherBB	noBB	ATT noBB
582	0.039%	0.001%	0.030%	0.001%	0.023%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
583	0.032%	0.004%	0.004%	0.005%	0.004%	0.005%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
584	0.051%	0.001%	0.025%	0.001%	0.051%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
588	0.022%	0.006%	0.005%	0.002%	0.023%	0.002%	0.003%	0.003%	0.000%	0.000%	0.001%	0.001%	0.004%	0.000%
592	0.026%	0.018%	0.004%	0.011%	0.016%	0.011%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
596	0.086%	0.012%	0.002%	0.002%	0.087%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
597	0.046%	0.021%	0.030%	0.002%	0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
598	0.036%	0.002%	0.019%	0.002%	0.031%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
600	0.047%	0.005%	0.001%	0.001%	0.047%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
602	0.019%	0.009%	0.003%	0.006%	0.020%	0.006%	0.001%	0.001%	0.000%	0.000%	0.001%	0.001%	0.001%	0.001%
603	0.034%	0.011%	0.005%	0.002%	0.036%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
604	0.019%	0.008%	0.010%	0.001%	0.009%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
605	0.035%	0.011%	0.001%	0.002%	0.038%	0.002%	0.000%	0.002%	0.000%	0.000%	0.001%	0.001%	0.001%	0.001%
606	0.070%	0.001%	0.040%	0.001%	0.076%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
609	0.017%	0.005%	0.002%	0.003%	0.019%	0.003%	0.002%	0.002%	0.000%	0.000%	0.002%	0.002%	0.002%	0.002%
610	0.022%	0.009%	0.009%	0.001%	0.016%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
611	0.036%	0.001%	0.014%	0.007%	0.045%	0.007%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
612	0.026%	0.009%	0.004%	0.001%	0.028%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
613	0.018%	0.002%	0.007%	0.003%	0.021%	0.003%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
616	0.016%	0.004%	0.002%	0.003%	0.021%	0.003%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
617	0.020%	0.007%	0.003%	0.002%	0.022%	0.002%	0.002%	0.002%	0.000%	0.000%	0.002%	0.002%	0.003%	0.003%
618	0.017%	0.008%	0.002%	0.003%	0.020%	0.003%	0.002%	0.002%	0.000%	0.000%	0.002%	0.002%	0.002%	0.002%
619	0.015%	0.004%	0.005%	0.001%	0.015%	0.001%	0.002%	0.002%	0.000%	0.000%	0.002%	0.002%	0.004%	0.004%
622	0.022%	0.010%	0.001%	0.003%	0.024%	0.003%	0.001%	0.001%	0.000%	0.000%	0.002%	0.002%	0.003%	0.003%
623	0.013%	0.005%	0.003%	0.000%	0.019%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%	0.001%	0.001%	0.001%
624	0.036%	0.001%	0.018%	0.003%	0.053%	0.003%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
625	0.028%	0.008%	0.008%	0.005%	0.030%	0.005%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
626	0.113%	0.006%	0.003%	0.003%	0.113%	0.003%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
627	0.028%	0.020%	0.019%	0.005%	0.002%	0.005%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
628	0.027%	0.021%	0.002%	0.002%	0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
630	0.019%	0.008%	0.003%	0.001%	0.021%	0.001%	0.003%	0.003%	0.000%	0.000%	0.001%	0.001%	0.003%	0.003%
631	0.036%	0.009%	0.013%	0.003%	0.003%	0.003%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
632	0.021%	0.009%	0.003%	0.006%	0.022%	0.006%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
633	0.077%	0.022%	0.001%	0.001%	0.078%	0.001%	0.003%	0.003%	0.000%	0.000%	0.003%	0.003%	0.006%	0.006%
634	0.041%	0.001%	0.004%	0.001%	0.042%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
635	0.018%	0.005%	0.004%	0.001%	0.019%	0.001%	0.002%	0.002%	0.000%	0.000%	0.002%	0.002%	0.001%	0.001%
636	0.040%	0.015%	0.012%	0.009%	0.042%	0.009%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
637	0.022%	0.000%	0.008%	0.001%	0.023%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%

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Table A-2: Standard Errors of Estimated Product Shares - All Products

DMA®	Cable		Cable		Cable		Cable		ATT		ATT		ATT	
	CableBB	ATTBB	TelcoBB	OtherBB	noBB	CableBB	OtherBB	noBB	CableBB	OtherBB	noBB	ATTBB	OtherBB	noBB
638	0.065%	0.013%	0.013%	0.001%	0.066%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
639	0.060%	0.007%	0.001%	0.001%	0.065%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
640	0.020%	0.009%	0.005%	0.003%	0.023%	0.001%	0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.001%	0.002%
641	0.018%	0.005%	0.004%	0.001%	0.020%	0.001%	0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.001%	0.001%
642	0.039%	0.018%	0.013%	0.005%	0.004%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
643	0.076%	0.044%	0.067%	0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
644	0.090%	0.028%	0.011%	0.001%	0.092%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
647	0.086%	0.038%	0.002%	0.002%	0.093%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
648	0.022%	0.007%	0.008%	0.002%	0.022%	0.003%	0.003%	0.003%	0.000%	0.000%	0.000%	0.000%	0.001%	0.001%
649	0.031%	0.011%	0.006%	0.021%	0.035%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
650	0.021%	0.007%	0.000%	0.004%	0.022%	0.002%	0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.001%	0.001%
651	0.032%	0.004%	0.009%	0.001%	0.038%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
652	0.023%	0.000%	0.006%	0.000%	0.025%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
656	0.049%	0.015%	0.004%	0.001%	0.055%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
657	0.045%	0.021%	0.007%	0.020%	0.040%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
658	0.019%	0.004%	0.003%	0.001%	0.020%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
659	0.018%	0.007%	0.002%	0.002%	0.019%	0.002%	0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.002%	0.003%
661	0.097%	0.002%	0.049%	0.001%	0.100%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
662	0.022%	0.006%	0.006%	0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
669	0.019%	0.003%	0.005%	0.000%	0.020%	0.000%	0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.001%	0.003%
670	0.024%	0.009%	0.008%	0.001%	0.022%	0.001%	0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.001%	0.001%
671	0.020%	0.007%	0.002%	0.003%	0.020%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
673	0.022%	0.019%	0.005%	0.005%	0.004%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
675	0.032%	0.008%	0.012%	0.001%	0.034%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
676	0.022%	0.003%	0.009%	0.002%	0.026%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
678	0.027%	0.008%	0.006%	0.000%	0.031%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.003%	0.003%
679	0.018%	0.000%	0.008%	0.004%	0.022%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
682	0.017%	0.004%	0.011%	0.005%	0.010%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
686	0.026%	0.005%	0.005%	0.005%	0.027%	0.001%	0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.004%	0.004%
687	0.001%	0.002%	0.001%	0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
691	0.025%	0.013%	0.000%	0.001%	0.026%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
692	0.048%	0.015%	0.001%	0.001%	0.050%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
693	0.020%	0.009%	0.004%	0.004%	0.024%	0.000%	0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.001%	0.001%
698	0.053%	0.017%	0.013%	0.001%	0.054%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
702	0.028%	0.004%	0.005%	0.005%	0.035%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
705	0.025%	0.004%	0.009%	0.002%	0.025%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
709	0.026%	0.003%	0.007%	0.001%	0.028%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
710	0.053%	0.032%	0.002%	0.002%	0.060%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%

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Table A-2: Standard Errors of Estimated Product Shares - All Products

DMA®	Cable		Cable		Cable		Cable		ATT		ATT		ATT	
	CableBB	ATTBB	TelcoBB	OtherBB	OtherBB	noBB	CableBB	noBB	CableBB	noBB	ATTBB	OtherBB	ATTBB	noBB
711	0.056%	0.056%	0.004%	0.004%	0.004%	0.004%	0.000%	0.004%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
716	0.033%	0.012%	0.006%	0.006%	0.006%	0.036%	0.008%	0.008%	0.008%	0.008%	0.000%	0.001%	0.000%	0.009%
717	0.031%	0.004%	0.026%	0.002%	0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
718	0.018%	0.016%	0.002%	0.006%	0.006%	0.010%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
722	0.027%	0.001%	0.015%	0.006%	0.006%	0.030%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
724	0.023%	0.001%	0.015%	0.006%	0.006%	0.015%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
725	0.013%	0.001%	0.002%	0.001%	0.001%	0.037%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
734	0.030%	0.007%	0.019%	0.019%	0.019%	0.007%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
736	0.061%	0.004%	0.001%	0.001%	0.001%	0.067%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
737	0.060%	0.001%	0.018%	0.006%	0.006%	0.081%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
740	0.066%	0.004%	0.050%	0.004%	0.004%	0.004%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
743	0.031%	0.004%	0.010%	0.001%	0.001%	0.034%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
744	0.024%	0.001%	0.015%	0.005%	0.005%	0.025%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
745	0.031%	0.002%	0.027%	0.003%	0.003%	0.009%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
746	0.035%	0.024%	0.002%	0.002%	0.002%	0.027%	0.002%	0.002%	0.002%	0.002%	0.000%	0.001%	0.000%	0.001%
747	0.081%	0.002%	0.056%	0.013%	0.013%	0.089%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
749	0.082%	0.024%	0.001%	0.016%	0.016%	0.083%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
751	0.018%	0.000%	0.007%	0.000%	0.000%	0.019%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
752	0.021%	0.000%	0.006%	0.001%	0.001%	0.022%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
753	0.017%	0.000%	0.003%	0.001%	0.001%	0.018%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
754	0.037%	0.003%	0.001%	0.001%	0.001%	0.038%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
755	0.033%	0.002%	0.003%	0.003%	0.003%	0.003%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
756	0.024%	0.001%	0.012%	0.001%	0.001%	0.016%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
757	0.019%	0.001%	0.011%	0.004%	0.004%	0.023%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
758	0.039%	0.001%	0.030%	0.005%	0.005%	0.045%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
759	0.060%	0.002%	0.018%	0.002%	0.002%	0.059%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
760	0.051%	0.002%	0.035%	0.035%	0.035%	0.003%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
762	0.019%	0.001%	0.014%	0.002%	0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
764	0.041%	0.001%	0.001%	0.001%	0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
765	0.024%	0.009%	0.007%	0.001%	0.001%	0.033%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
766	0.039%	0.004%	0.034%	0.003%	0.003%	0.003%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
767	0.050%	0.002%	0.005%	0.048%	0.048%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
770	0.016%	0.001%	0.008%	0.005%	0.005%	0.019%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
771	0.055%	0.019%	0.001%	0.021%	0.021%	0.061%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
773	0.049%	0.001%	0.010%	0.001%	0.001%	0.050%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
789	0.014%	0.001%	0.006%	0.001%	0.001%	0.012%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
790	0.015%	0.001%	0.008%	0.001%	0.001%	0.014%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
798	0.011%	0.008%	0.011%	0.011%	0.011%	0.011%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%

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Table A-2: Standard Errors of Estimated Product Shares - All Products

DMA®	Cable		Cable		Cable		Cable		ATT		ATT		ATT noBB
	CableBB	ATTBB	TelcoBB	OtherBB	noBB	OtherBB	CableBB	ATTBB	CableBB	ATTBB	OtherBB	ATT	
800	0.046%	0.019%	0.001%	0.014%	0.048%	0.006%	0.006%	0.000%	0.000%	0.005%	0.004%	0.000%	
801	0.024%	0.001%	0.011%	0.001%	0.022%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	
802	0.024%	0.003%	0.012%	0.012%	0.003%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	
803	0.017%	0.006%	0.004%	0.003%	0.017%	0.002%	0.002%	0.000%	0.000%	0.001%	0.002%	0.000%	
804	0.045%	0.005%	0.020%	0.001%	0.041%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	
807	0.021%	0.010%	0.001%	0.005%	0.022%	0.001%	0.001%	0.000%	0.000%	0.001%	0.003%	0.000%	
810	0.025%	0.001%	0.010%	0.001%	0.026%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	
811	0.023%	0.010%	0.002%	0.001%	0.023%	0.002%	0.002%	0.000%	0.000%	0.003%	0.003%	0.000%	
813	0.027%	0.004%	0.007%	0.001%	0.029%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	
819	0.021%	0.001%	0.007%	0.005%	0.024%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	
820	0.017%	0.001%	0.005%	0.000%	0.019%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	
821	0.006%	0.003%	0.001%	0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	
825	0.022%	0.007%	0.000%	0.001%	0.023%	0.003%	0.003%	0.000%	0.000%	0.001%	0.003%	0.000%	
828	0.027%	0.017%	0.001%	0.004%	0.029%	0.001%	0.001%	0.000%	0.000%	0.001%	0.002%	0.000%	
839	0.021%	0.000%	0.006%	0.004%	0.022%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	
855	0.021%	0.007%	0.012%	0.009%	0.011%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	
862	0.017%	0.008%	0.003%	0.001%	0.018%	0.000%	0.000%	0.000%	0.000%	0.000%	0.001%	0.000%	
866	0.020%	0.009%	0.001%	0.001%	0.021%	0.001%	0.001%	0.000%	0.000%	0.001%	0.001%	0.000%	
868	0.033%	0.018%	0.001%	0.001%	0.034%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	
881	0.012%	0.001%	0.009%	0.003%	0.006%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	

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Table A-2: Standard Errors of Estimated Product Shares - All Products

DMA®	Telco		Telco		Telco		noVideo		noVideo		noVideo	
	CableBB	TelcoBB	OtherBB	noBB	CableBB	ATTBB	TelcoBB	OtherBB	noBB	noVideo	noBB	
500	0.000%	0.000%	0.000%	0.000%	0.015%	0.001%	0.011%	0.008%	0.019%			
501	0.003%	0.018%	0.000%	0.007%	0.011%	0.000%	0.009%	0.003%	0.015%			
502	0.001%	0.014%	0.003%	0.001%	0.021%	0.001%	0.013%	0.001%	0.023%			
503	0.001%	0.014%	0.001%	0.048%	0.015%	0.013%	0.015%	0.010%	0.026%			
504	0.000%	0.018%	0.000%	0.016%	0.007%	0.000%	0.009%	0.003%	0.013%			
505	0.000%	0.001%	0.000%	0.000%	0.008%	0.006%	0.003%	0.004%	0.011%			
506	0.001%	0.012%	0.000%	0.015%	0.011%	0.000%	0.006%	0.003%	0.013%			
507	0.001%	0.009%	0.001%	0.001%	0.017%	0.006%	0.011%	0.001%	0.020%			
508	0.001%	0.015%	0.000%	0.013%	0.005%	0.000%	0.009%	0.000%	0.011%			
509	0.001%	0.015%	0.001%	0.008%	0.011%	0.005%	0.020%	0.006%	0.023%			
510	0.000%	0.002%	0.000%	0.000%	0.011%	0.008%	0.007%	0.004%	0.016%			
511	0.001%	0.021%	0.000%	0.021%	0.011%	0.002%	0.011%	0.000%	0.015%			
512	0.001%	0.021%	0.000%	0.006%	0.009%	0.000%	0.011%	0.002%	0.015%			
513	0.001%	0.001%	0.001%	0.001%	0.009%	0.006%	0.005%	0.004%	0.013%			
514	0.000%	0.015%	0.000%	0.001%	0.011%	0.000%	0.010%	0.000%	0.015%			
515	0.000%	0.010%	0.000%	0.000%	0.009%	0.003%	0.011%	0.002%	0.015%			
516	0.001%	0.009%	0.001%	0.040%	0.016%	0.001%	0.015%	0.005%	0.022%			
517	0.000%	0.007%	0.000%	0.013%	0.010%	0.006%	0.007%	0.003%	0.014%			
518	0.001%	0.006%	0.001%	0.001%	0.011%	0.007%	0.009%	0.005%	0.016%			
519	0.001%	0.015%	0.002%	0.011%	0.014%	0.009%	0.007%	0.000%	0.019%			
520	0.001%	0.028%	0.001%	0.001%	0.016%	0.009%	0.011%	0.001%	0.022%			
521	0.000%	0.023%	0.000%	0.000%	0.008%	0.000%	0.009%	0.003%	0.012%			
522	0.001%	0.001%	0.001%	0.001%	0.025%	0.015%	0.011%	0.001%	0.026%			
523	0.001%	0.008%	0.001%	0.001%	0.012%	0.000%	0.016%	0.007%	0.021%			
524	0.000%	0.005%	0.001%	0.013%	0.007%	0.009%	0.004%	0.004%	0.014%			
525	0.003%	0.010%	0.003%	0.003%	0.007%	0.024%	0.020%	0.001%	0.032%			
526	0.001%	0.004%	0.004%	0.001%	0.018%	0.002%	0.015%	0.002%	0.017%			
527	0.001%	0.006%	0.001%	0.001%	0.008%	0.009%	0.006%	0.006%	0.015%			
528	0.002%	0.006%	0.000%	0.015%	0.007%	0.009%	0.001%	0.003%	0.012%			
529	0.000%	0.008%	0.001%	0.014%	0.010%	0.007%	0.007%	0.001%	0.014%			
530	0.001%	0.020%	0.001%	0.001%	0.010%	0.009%	0.015%	0.001%	0.021%			
531	0.009%	0.022%	0.001%	0.045%	0.023%	0.001%	0.025%	0.001%	0.031%			
532	0.000%	0.011%	0.000%	0.000%	0.012%	0.000%	0.009%	0.003%	0.015%			
533	0.000%	0.004%	0.000%	0.000%	0.009%	0.008%	0.003%	0.003%	0.013%			
534	0.000%	0.006%	0.003%	0.000%	0.009%	0.006%	0.005%	0.001%	0.013%			
535	0.000%	0.004%	0.000%	0.000%	0.011%	0.005%	0.006%	0.003%	0.014%			
536	0.001%	0.006%	0.001%	0.001%	0.014%	0.010%	0.012%	0.004%	0.020%			
537	0.002%	0.002%	0.002%	0.002%	0.031%	0.001%	0.036%	0.016%	0.046%			

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Table A-2: Standard Errors of Estimated Product Shares - All Products

DMA®	Telco		Telco		Telco noBB	noVideo CableBB		noVideo ATTBB		noVideo TelcoBB		noVideo OtherBB		noVideo noBB
	CableBB	TelcoBB	OtherBB	TelcoBB		CableBB	ATTBB	TelcoBB	OtherBB					
538	0.000%	0.003%	0.000%	0.000%	0.000%	0.012%	0.001%	0.010%	0.001%	0.010%	0.001%	0.001%	0.015%	
539	0.000%	0.016%	0.000%	0.000%	0.004%	0.007%	0.001%	0.008%	0.001%	0.008%	0.002%	0.002%	0.011%	
540	0.001%	0.004%	0.001%	0.001%	0.001%	0.011%	0.008%	0.011%	0.008%	0.011%	0.007%	0.007%	0.018%	
541	0.003%	0.010%	0.001%	0.001%	0.026%	0.012%	0.005%	0.013%	0.005%	0.013%	0.002%	0.002%	0.018%	
542	0.001%	0.004%	0.001%	0.001%	0.001%	0.013%	0.008%	0.010%	0.008%	0.010%	0.004%	0.004%	0.019%	
543	0.001%	0.003%	0.001%	0.001%	0.028%	0.017%	0.001%	0.012%	0.001%	0.012%	0.000%	0.000%	0.020%	
544	0.001%	0.015%	0.000%	0.000%	0.000%	0.011%	0.000%	0.009%	0.000%	0.009%	0.003%	0.003%	0.015%	
545	0.001%	0.004%	0.001%	0.001%	0.001%	0.019%	0.002%	0.020%	0.002%	0.020%	0.001%	0.001%	0.026%	
546	0.004%	0.006%	0.001%	0.001%	0.007%	0.012%	0.009%	0.008%	0.009%	0.008%	0.001%	0.001%	0.017%	
547	0.001%	0.005%	0.001%	0.001%	0.001%	0.013%	0.007%	0.009%	0.007%	0.009%	0.002%	0.002%	0.018%	
548	0.000%	0.005%	0.001%	0.001%	0.004%	0.005%	0.007%	0.000%	0.007%	0.000%	0.003%	0.003%	0.010%	
549	0.002%	0.002%	0.002%	0.002%	0.002%	0.031%	0.001%	0.017%	0.001%	0.017%	0.014%	0.014%	0.037%	
550	0.000%	0.000%	0.000%	0.000%	0.000%	0.008%	0.006%	0.003%	0.006%	0.003%	0.002%	0.002%	0.002%	
551	0.001%	0.002%	0.001%	0.001%	0.001%	0.010%	0.012%	0.010%	0.012%	0.010%	0.006%	0.006%	0.020%	
552	0.002%	0.002%	0.002%	0.002%	0.002%	0.005%	0.004%	0.018%	0.004%	0.018%	0.005%	0.005%	0.005%	
553	0.001%	0.001%	0.001%	0.001%	0.001%	0.032%	0.012%	0.011%	0.012%	0.011%	0.012%	0.012%	0.036%	
554	0.001%	0.014%	0.001%	0.001%	0.001%	0.020%	0.004%	0.007%	0.004%	0.007%	0.014%	0.014%	0.025%	
555	0.000%	0.015%	0.001%	0.001%	0.005%	0.013%	0.000%	0.010%	0.000%	0.010%	0.004%	0.004%	0.017%	
556	0.001%	0.019%	0.001%	0.001%	0.019%	0.010%	0.000%	0.011%	0.000%	0.011%	0.006%	0.006%	0.016%	
557	0.001%	0.005%	0.001%	0.001%	0.017%	0.011%	0.007%	0.007%	0.007%	0.007%	0.004%	0.004%	0.016%	
558	0.002%	0.026%	0.002%	0.002%	0.013%	0.016%	0.002%	0.001%	0.002%	0.001%	0.013%	0.013%	0.023%	
559	0.001%	0.001%	0.001%	0.001%	0.001%	0.027%	0.003%	0.027%	0.003%	0.027%	0.004%	0.004%	0.004%	
560	0.000%	0.003%	0.000%	0.000%	0.004%	0.014%	0.006%	0.006%	0.006%	0.006%	0.002%	0.002%	0.016%	
561	0.001%	0.003%	0.000%	0.000%	0.001%	0.010%	0.009%	0.004%	0.009%	0.004%	0.003%	0.003%	0.015%	
563	0.000%	0.001%	0.000%	0.000%	0.000%	0.008%	0.006%	0.008%	0.006%	0.008%	0.004%	0.004%	0.014%	
564	0.001%	0.007%	0.001%	0.001%	0.001%	0.015%	0.005%	0.011%	0.005%	0.011%	0.004%	0.004%	0.019%	
565	0.002%	0.010%	0.002%	0.002%	0.002%	0.016%	0.001%	0.010%	0.001%	0.010%	0.001%	0.001%	0.019%	
566	0.002%	0.014%	0.000%	0.000%	0.000%	0.009%	0.000%	0.012%	0.000%	0.012%	0.004%	0.004%	0.015%	
567	0.000%	0.007%	0.000%	0.000%	0.013%	0.010%	0.008%	0.008%	0.008%	0.008%	0.003%	0.003%	0.016%	
569	0.001%	0.006%	0.001%	0.001%	0.001%	0.018%	0.001%	0.027%	0.001%	0.027%	0.023%	0.023%	0.039%	
570	0.002%	0.030%	0.001%	0.001%	0.017%	0.011%	0.007%	0.011%	0.007%	0.011%	0.001%	0.001%	0.018%	
571	0.001%	0.011%	0.001%	0.001%	0.004%	0.006%	0.003%	0.008%	0.003%	0.008%	0.003%	0.003%	0.012%	
573	0.001%	0.006%	0.001%	0.001%	0.001%	0.012%	0.001%	0.014%	0.001%	0.014%	0.008%	0.008%	0.018%	
574	0.001%	0.020%	0.001%	0.001%	0.025%	0.010%	0.001%	0.013%	0.001%	0.013%	0.006%	0.006%	0.017%	
575	0.000%	0.017%	0.006%	0.006%	0.027%	0.010%	0.007%	0.014%	0.007%	0.014%	0.010%	0.010%	0.021%	
576	0.001%	0.016%	0.001%	0.001%	0.001%	0.018%	0.001%	0.011%	0.001%	0.011%	0.003%	0.003%	0.021%	
577	0.004%	0.005%	0.000%	0.000%	0.001%	0.010%	0.001%	0.013%	0.001%	0.013%	0.001%	0.001%	0.015%	
581	0.001%	0.005%	0.001%	0.001%	0.001%	0.020%	0.005%	0.027%	0.005%	0.027%	0.020%	0.020%	0.037%	

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Table A-2: Standard Errors of Estimated Product Shares - All Products

DMA®	Telco		Telco		Telco		noVideo		noVideo		noVideo	
	CableBB	TelcoBB	OtherBB	noBB	CableBB	ATTBB	TelcoBB	OtherBB	noBB	noVideo	noBB	
582	0.002%	0.021%	0.002%	0.002%	0.028%	0.003%	0.025%	0.001%	0.037%	0.001%	0.037%	
583	0.004%	0.004%	0.004%	0.004%	0.021%	0.006%	0.029%	0.008%	0.008%	0.008%	0.008%	
584	0.001%	0.001%	0.001%	0.001%	0.019%	0.001%	0.024%	0.001%	0.030%	0.001%	0.030%	
588	0.001%	0.009%	0.001%	0.001%	0.010%	0.010%	0.013%	0.002%	0.019%	0.002%	0.019%	
592	0.001%	0.001%	0.010%	0.001%	0.022%	0.023%	0.018%	0.004%	0.033%	0.004%	0.033%	
596	0.002%	0.002%	0.002%	0.002%	0.048%	0.018%	0.001%	0.013%	0.052%	0.013%	0.052%	
597	0.002%	0.030%	0.002%	0.002%	0.015%	0.005%	0.004%	0.004%	0.004%	0.004%	0.004%	
598	0.002%	0.007%	0.002%	0.002%	0.007%	0.001%	0.022%	0.001%	0.024%	0.001%	0.024%	
600	0.001%	0.001%	0.001%	0.001%	0.024%	0.018%	0.001%	0.001%	0.029%	0.001%	0.029%	
602	0.000%	0.000%	0.000%	0.000%	0.010%	0.009%	0.005%	0.005%	0.015%	0.005%	0.015%	
603	0.004%	0.012%	0.002%	0.002%	0.025%	0.017%	0.018%	0.001%	0.034%	0.001%	0.034%	
604	0.002%	0.011%	0.001%	0.001%	0.013%	0.008%	0.018%	0.004%	0.024%	0.004%	0.024%	
605	0.001%	0.019%	0.001%	0.001%	0.019%	0.013%	0.009%	0.002%	0.024%	0.002%	0.024%	
606	0.001%	0.034%	0.001%	0.001%	0.015%	0.003%	0.004%	0.004%	0.004%	0.004%	0.004%	
609	0.000%	0.004%	0.000%	0.000%	0.010%	0.008%	0.007%	0.003%	0.015%	0.003%	0.015%	
610	0.001%	0.007%	0.001%	0.001%	0.016%	0.009%	0.011%	0.013%	0.022%	0.013%	0.022%	
611	0.001%	0.021%	0.001%	0.038%	0.020%	0.001%	0.024%	0.005%	0.031%	0.005%	0.031%	
612	0.001%	0.010%	0.001%	0.001%	0.008%	0.013%	0.008%	0.004%	0.018%	0.004%	0.018%	
613	0.000%	0.007%	0.000%	0.012%	0.008%	0.003%	0.011%	0.003%	0.015%	0.003%	0.015%	
616	0.000%	0.009%	0.000%	0.014%	0.010%	0.007%	0.006%	0.008%	0.016%	0.008%	0.016%	
617	0.002%	0.002%	0.000%	0.000%	0.012%	0.007%	0.003%	0.005%	0.016%	0.005%	0.016%	
618	0.001%	0.006%	0.000%	0.004%	0.008%	0.009%	0.005%	0.005%	0.015%	0.005%	0.015%	
619	0.001%	0.004%	0.001%	0.001%	0.011%	0.009%	0.012%	0.006%	0.019%	0.006%	0.019%	
622	0.000%	0.001%	0.000%	0.000%	0.012%	0.010%	0.001%	0.003%	0.016%	0.003%	0.016%	
623	0.000%	0.012%	0.000%	0.014%	0.007%	0.007%	0.007%	0.004%	0.014%	0.004%	0.014%	
624	0.001%	0.027%	0.001%	0.048%	0.019%	0.001%	0.020%	0.004%	0.028%	0.004%	0.028%	
625	0.001%	0.005%	0.001%	0.001%	0.016%	0.008%	0.009%	0.007%	0.021%	0.007%	0.021%	
626	0.003%	0.003%	0.003%	0.003%	0.016%	0.006%	0.004%	0.004%	0.004%	0.004%	0.004%	
627	0.002%	0.007%	0.002%	0.002%	0.030%	0.014%	0.001%	0.015%	0.035%	0.015%	0.035%	
628	0.002%	0.002%	0.002%	0.002%	0.001%	0.020%	0.021%	0.001%	0.029%	0.001%	0.029%	
630	0.001%	0.003%	0.001%	0.001%	0.012%	0.010%	0.005%	0.003%	0.016%	0.003%	0.016%	
631	0.003%	0.037%	0.003%	0.003%	0.043%	0.013%	0.062%	0.026%	0.075%	0.026%	0.075%	
632	0.001%	0.007%	0.002%	0.001%	0.014%	0.009%	0.014%	0.004%	0.022%	0.004%	0.022%	
633	0.001%	0.002%	0.001%	0.001%	0.013%	0.009%	0.002%	0.009%	0.004%	0.009%	0.004%	
634	0.001%	0.001%	0.001%	0.001%	0.013%	0.010%	0.018%	0.021%	0.032%	0.021%	0.032%	
635	0.000%	0.004%	0.000%	0.004%	0.012%	0.007%	0.004%	0.004%	0.015%	0.004%	0.015%	
636	0.001%	0.001%	0.001%	0.001%	0.023%	0.013%	0.003%	0.001%	0.026%	0.001%	0.026%	
637	0.001%	0.017%	0.002%	0.020%	0.009%	0.000%	0.013%	0.004%	0.017%	0.004%	0.017%	

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Table A-2: Standard Errors of Estimated Product Shares - All Products

DMA®	Telco		Telco		Telco		noVideo		noVideo		noVideo	
	CableBB	TelcoBB	OtherBB	noBB	CableBB	ATTBB	TelcoBB	OtherBB	noBB	noVideo	noBB	noVideo
638	0.001%	0.013%	0.001%	0.001%	0.067%	0.023%	0.035%	0.040%	0.082%			
639	0.001%	0.031%	0.019%	0.001%	0.020%	0.018%	0.019%	0.019%	0.037%			
640	0.000%	0.000%	0.000%	0.000%	0.010%	0.010%	0.005%	0.000%	0.016%			
641	0.000%	0.007%	0.000%	0.004%	0.010%	0.007%	0.005%	0.003%	0.015%			
642	0.002%	0.026%	0.002%	0.028%	0.013%	0.005%	0.005%	0.003%	0.014%			
643	0.002%	0.002%	0.002%	0.002%	0.029%	0.024%	0.018%	0.005%	0.005%			
644	0.001%	0.001%	0.001%	0.001%	0.034%	0.027%	0.003%	0.003%	0.036%			
647	0.002%	0.002%	0.002%	0.002%	0.002%	0.039%	0.002%	0.002%	0.040%			
648	0.001%	0.010%	0.001%	0.006%	0.010%	0.008%	0.009%	0.004%	0.016%			
649	0.001%	0.001%	0.001%	0.001%	0.012%	0.012%	0.003%	0.002%	0.018%			
650	0.000%	0.005%	0.000%	0.005%	0.012%	0.009%	0.003%	0.003%	0.016%			
651	0.001%	0.021%	0.001%	0.001%	0.017%	0.012%	0.010%	0.013%	0.026%			
652	0.000%	0.009%	0.000%	0.017%	0.011%	0.000%	0.009%	0.005%	0.016%			
656	0.001%	0.011%	0.001%	0.054%	0.018%	0.013%	0.012%	0.001%	0.025%			
657	0.002%	0.020%	0.002%	0.002%	0.024%	0.018%	0.024%	0.003%	0.003%			
658	0.000%	0.004%	0.000%	0.017%	0.011%	0.006%	0.006%	0.006%	0.016%			
659	0.000%	0.003%	0.000%	0.004%	0.009%	0.007%	0.005%	0.003%	0.012%			
661	0.001%	0.001%	0.001%	0.001%	0.012%	0.004%	0.018%	0.005%	0.005%			
662	0.002%	0.017%	0.002%	0.002%	0.024%	0.021%	0.006%	0.016%	0.035%			
669	0.000%	0.007%	0.000%	0.000%	0.014%	0.005%	0.008%	0.005%	0.018%			
670	0.001%	0.001%	0.001%	0.001%	0.020%	0.010%	0.010%	0.008%	0.024%			
671	0.001%	0.002%	0.001%	0.001%	0.012%	0.009%	0.008%	0.005%	0.019%			
673	0.002%	0.002%	0.002%	0.002%	0.015%	0.020%	0.005%	0.001%	0.026%			
675	0.001%	0.010%	0.001%	0.013%	0.017%	0.010%	0.011%	0.002%	0.021%			
676	0.001%	0.009%	0.001%	0.008%	0.016%	0.002%	0.018%	0.002%	0.024%			
678	0.001%	0.012%	0.001%	0.021%	0.014%	0.011%	0.007%	0.001%	0.019%			
679	0.001%	0.007%	0.004%	0.016%	0.010%	0.000%	0.015%	0.005%	0.019%			
682	0.001%	0.005%	0.004%	0.001%	0.013%	0.005%	0.010%	0.006%	0.019%			
686	0.000%	0.004%	0.000%	0.000%	0.010%	0.008%	0.010%	0.008%	0.016%			
687	0.001%	0.043%	0.001%	0.044%	0.001%	0.002%	0.030%	0.001%	0.030%			
691	0.001%	0.008%	0.001%	0.009%	0.014%	0.011%	0.006%	0.006%	0.020%			
692	0.001%	0.001%	0.001%	0.001%	0.015%	0.017%	0.013%	0.001%	0.027%			
693	0.001%	0.000%	0.001%	0.020%	0.008%	0.009%	0.007%	0.004%	0.015%			
698	0.001%	0.020%	0.001%	0.001%	0.024%	0.013%	0.002%	0.002%	0.024%			
702	0.002%	0.016%	0.006%	0.025%	0.015%	0.005%	0.013%	0.011%	0.022%			
705	0.001%	0.012%	0.001%	0.001%	0.015%	0.004%	0.017%	0.012%	0.025%			
709	0.001%	0.007%	0.001%	0.009%	0.013%	0.009%	0.010%	0.008%	0.020%			
710	0.002%	0.002%	0.002%	0.002%	0.007%	0.019%	0.007%	0.006%	0.020%			

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Table A-2: Standard Errors of Estimated Product Shares - All Products

DMA®	Telco		Telco		Telco		noVideo		noVideo		noVideo	
	CableBB	TelcoBB	OtherBB	noBB	CableBB	noBB	ATTBB	TelcoBB	OtherBB	noBB	noVideo	noBB
711	0.004%	0.004%	0.004%	0.004%	0.029%	0.004%	0.023%	0.007%	0.007%	0.007%	0.007%	0.007%
716	0.001%	0.012%	0.001%	0.010%	0.012%	0.010%	0.011%	0.006%	0.002%	0.002%	0.017%	0.017%
717	0.002%	0.018%	0.002%	0.002%	0.016%	0.002%	0.019%	0.028%	0.017%	0.017%	0.040%	0.040%
718	0.002%	0.002%	0.002%	0.002%	0.012%	0.002%	0.015%	0.003%	0.002%	0.002%	0.019%	0.019%
722	0.001%	0.007%	0.004%	0.007%	0.015%	0.007%	0.001%	0.014%	0.005%	0.005%	0.020%	0.020%
724	0.001%	0.029%	0.001%	0.032%	0.013%	0.032%	0.001%	0.018%	0.004%	0.004%	0.022%	0.022%
725	0.001%	0.032%	0.005%	0.041%	0.003%	0.041%	0.001%	0.019%	0.008%	0.008%	0.021%	0.021%
734	0.003%	0.003%	0.003%	0.003%	0.020%	0.003%	0.007%	0.027%	0.002%	0.002%	0.034%	0.034%
736	0.001%	0.046%	0.012%	0.008%	0.025%	0.008%	0.019%	0.001%	0.019%	0.019%	0.036%	0.036%
737	0.006%	0.034%	0.001%	0.081%	0.019%	0.081%	0.001%	0.024%	0.018%	0.018%	0.035%	0.035%
740	0.004%	0.059%	0.004%	0.004%	0.006%	0.004%	0.005%	0.026%	0.019%	0.019%	0.006%	0.006%
743	0.001%	0.013%	0.001%	0.010%	0.018%	0.010%	0.003%	0.020%	0.007%	0.007%	0.028%	0.028%
744	0.000%	0.009%	0.000%	0.005%	0.011%	0.005%	0.001%	0.008%	0.003%	0.003%	0.014%	0.014%
745	0.003%	0.003%	0.003%	0.003%	0.030%	0.003%	0.002%	0.059%	0.003%	0.003%	0.065%	0.065%
746	0.002%	0.002%	0.002%	0.002%	0.030%	0.002%	0.025%	0.001%	0.017%	0.017%	0.041%	0.041%
747	0.001%	0.001%	0.001%	0.001%	0.049%	0.001%	0.002%	0.040%	0.040%	0.040%	0.050%	0.050%
749	0.001%	0.001%	0.001%	0.001%	0.030%	0.001%	0.028%	0.006%	0.006%	0.006%	0.015%	0.015%
751	0.001%	0.006%	0.004%	0.000%	0.011%	0.000%	0.000%	0.015%	0.004%	0.004%	0.018%	0.018%
752	0.000%	0.011%	0.005%	0.018%	0.010%	0.018%	0.000%	0.017%	0.007%	0.007%	0.021%	0.021%
753	0.001%	0.005%	0.000%	0.000%	0.011%	0.000%	0.000%	0.010%	0.003%	0.003%	0.015%	0.015%
754	0.001%	0.001%	0.001%	0.001%	0.030%	0.001%	0.003%	0.029%	0.016%	0.016%	0.043%	0.043%
755	0.003%	0.029%	0.003%	0.003%	0.038%	0.003%	0.002%	0.055%	0.001%	0.001%	0.064%	0.064%
756	0.002%	0.012%	0.002%	0.002%	0.026%	0.002%	0.001%	0.033%	0.004%	0.004%	0.039%	0.039%
757	0.001%	0.004%	0.004%	0.001%	0.013%	0.001%	0.001%	0.020%	0.009%	0.009%	0.023%	0.023%
758	0.001%	0.001%	0.001%	0.001%	0.034%	0.001%	0.002%	0.035%	0.018%	0.018%	0.023%	0.023%
759	0.002%	0.027%	0.002%	0.002%	0.038%	0.002%	0.002%	0.029%	0.002%	0.002%	0.044%	0.044%
760	0.003%	0.019%	0.003%	0.003%	0.045%	0.003%	0.003%	0.039%	0.004%	0.004%	0.046%	0.046%
762	0.002%	0.005%	0.002%	0.002%	0.027%	0.002%	0.001%	0.026%	0.016%	0.016%	0.038%	0.038%
764	0.018%	0.050%	0.002%	0.057%	0.027%	0.057%	0.001%	0.043%	0.001%	0.001%	0.049%	0.049%
765	0.001%	0.002%	0.001%	0.025%	0.011%	0.025%	0.009%	0.015%	0.004%	0.004%	0.021%	0.021%
766	0.003%	0.003%	0.003%	0.003%	0.046%	0.003%	0.004%	0.043%	0.004%	0.004%	0.046%	0.046%
767	0.002%	0.002%	0.002%	0.002%	0.017%	0.002%	0.004%	0.020%	0.005%	0.005%	0.006%	0.006%
770	0.000%	0.008%	0.002%	0.006%	0.011%	0.006%	0.001%	0.014%	0.009%	0.009%	0.018%	0.018%
771	0.001%	0.001%	0.001%	0.001%	0.037%	0.001%	0.023%	0.022%	0.008%	0.008%	0.047%	0.047%
773	0.001%	0.001%	0.001%	0.001%	0.043%	0.001%	0.001%	0.043%	0.027%	0.027%	0.059%	0.059%
789	0.001%	0.003%	0.002%	0.001%	0.012%	0.001%	0.000%	0.008%	0.002%	0.002%	0.015%	0.015%
790	0.003%	0.007%	0.001%	0.001%	0.011%	0.001%	0.001%	0.016%	0.006%	0.006%	0.020%	0.020%
798	0.011%	0.082%	0.011%	0.011%	0.002%	0.011%	0.003%	0.002%	0.002%	0.002%	0.002%	0.002%

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Table A-2: Standard Errors of Estimated Product Shares - All Products

DMA®	Telco		Telco		Telco		Telco		noVideo		noVideo	
	CableBB	TelcoBB	OtherBB	noBB	CableBB	ATTBB	TelcoBB	OtherBB	CableBB	ATTBB	TelcoBB	noBB
800	0.001%	0.001%	0.001%	0.001%	0.026%	0.022%	0.001%	0.014%	0.001%	0.022%	0.001%	0.036%
801	0.001%	0.004%	0.001%	0.001%	0.018%	0.001%	0.001%	0.008%	0.016%	0.001%	0.016%	0.025%
802	0.003%	0.003%	0.003%	0.003%	0.061%	0.026%	0.001%	0.001%	0.001%	0.026%	0.001%	0.065%
803	0.000%	0.012%	0.000%	0.000%	0.012%	0.007%	0.006%	0.005%	0.006%	0.007%	0.006%	0.016%
804	0.013%	0.029%	0.001%	0.015%	0.018%	0.003%	0.009%	0.001%	0.009%	0.003%	0.009%	0.021%
807	0.000%	0.001%	0.000%	0.000%	0.010%	0.011%	0.007%	0.004%	0.007%	0.011%	0.007%	0.016%
810	0.001%	0.006%	0.001%	0.001%	0.019%	0.001%	0.021%	0.009%	0.021%	0.001%	0.021%	0.028%
811	0.001%	0.002%	0.001%	0.001%	0.020%	0.014%	0.005%	0.008%	0.005%	0.014%	0.005%	0.024%
813	0.001%	0.008%	0.001%	0.001%	0.022%	0.004%	0.018%	0.003%	0.018%	0.004%	0.018%	0.028%
819	0.000%	0.004%	0.000%	0.013%	0.010%	0.002%	0.010%	0.006%	0.010%	0.002%	0.010%	0.015%
820	0.000%	0.009%	0.000%	0.016%	0.011%	0.001%	0.012%	0.005%	0.012%	0.001%	0.012%	0.017%
821	0.001%	0.053%	0.001%	0.053%	0.001%	0.003%	0.029%	0.006%	0.029%	0.003%	0.029%	0.031%
825	0.000%	0.000%	0.000%	0.000%	0.010%	0.008%	0.000%	0.003%	0.000%	0.008%	0.000%	0.014%
828	0.001%	0.007%	0.001%	0.001%	0.017%	0.019%	0.003%	0.010%	0.003%	0.019%	0.003%	0.027%
839	0.000%	0.011%	0.000%	0.000%	0.012%	0.001%	0.008%	0.005%	0.008%	0.001%	0.008%	0.015%
855	0.001%	0.006%	0.001%	0.001%	0.016%	0.012%	0.015%	0.006%	0.015%	0.012%	0.015%	0.024%
862	0.000%	0.006%	0.000%	0.000%	0.010%	0.010%	0.006%	0.003%	0.006%	0.010%	0.006%	0.015%
866	0.001%	0.000%	0.001%	0.001%	0.012%	0.014%	0.008%	0.002%	0.008%	0.014%	0.008%	0.020%
868	0.001%	0.001%	0.001%	0.001%	0.023%	0.022%	0.008%	0.014%	0.008%	0.022%	0.008%	0.033%
881	0.001%	0.004%	0.001%	0.001%	0.013%	0.001%	0.012%	0.004%	0.012%	0.001%	0.012%	0.019%

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Table A-3: Estimated Product Shares - 15 Products

[[BEGIN AT&T AND DIRECTV HIGHLY CONFIDENTIAL INFORMATION]]

[[END AT&T AND DIRECTV HIGHLY CONFIDENTIAL INFORMATION]]

Table A-3

REDACTED - FOR PUBLIC INSPECTION

Table A-3: Estimated Product Shares - 15 Products

[[BEGIN AT&T AND DIRECTV HIGHLY CONFIDENTIAL INFORMATION]]

[[END AT&T AND DIRECTV HIGHLY CONFIDENTIAL INFORMATION]]

Table A-3

REDACTED - FOR PUBLIC INSPECTION

Table A-3: Estimated Product Shares - 15 Products

[[BEGIN AT&T AND DIRECTV HIGHLY CONFIDENTIAL INFORMATION]]

[[END AT&T AND DIRECTV HIGHLY CONFIDENTIAL INFORMATION]]

Table A-3

REDACTED - FOR PUBLIC INSPECTION

Table A-3: Estimated Product Shares - 15 Products

[[BEGIN AT&T AND DIRECTV HIGHLY CONFIDENTIAL INFORMATION]]

[[END AT&T AND DIRECTV HIGHLY CONFIDENTIAL INFORMATION]]

Table A-3

REDACTED - FOR PUBLIC INSPECTION

Table A-3: Estimated Product Shares - 15 Products

[[BEGIN AT&T AND DIRECTV HIGHLY CONFIDENTIAL INFORMATION]]

[[END AT&T AND DIRECTV HIGHLY CONFIDENTIAL INFORMATION]]

Table A-3

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Table A-4: Standard Errors of Estimated Product Shares - 15 Products

DMA®	DTV		DTV		DISH		DISH		Cable		Cable		Telco		Telco		noVideo		noVideo		noVideo	
	CableBB	TelcoBB	TelcoBB	noBB	CableBB	TelcoBB	CableBB	noBB	CableBB	TelcoBB												
500	0.011%	0.012%	0.015%	0.008%	0.009%	0.004%	0.009%	0.009%	0.027%	0.010%	0.027%	0.000%	0.000%	0.015%	0.001%	0.015%	0.001%	0.015%	0.001%	0.011%	0.009%	0.018%
501	0.005%	0.005%	0.005%	0.003%	0.004%	0.004%	0.002%	0.002%	0.025%	0.012%	0.026%	0.003%	0.003%	0.018%	0.007%	0.018%	0.007%	0.011%	0.009%	0.014%	0.009%	0.014%
502	0.017%	0.014%	0.018%	0.009%	0.014%	0.009%	0.018%	0.018%	0.043%	0.012%	0.043%	0.001%	0.001%	0.014%	0.003%	0.014%	0.003%	0.021%	0.013%	0.013%	0.013%	0.023%
503	0.022%	0.028%	0.032%	0.005%	0.016%	0.003%	0.014%	0.014%	0.039%	0.016%	0.048%	0.001%	0.001%	0.014%	0.048%	0.019%	0.048%	0.015%	0.019%	0.019%	0.019%	0.025%
504	0.004%	0.007%	0.010%	0.004%	0.003%	0.003%	0.003%	0.003%	0.023%	0.011%	0.025%	0.000%	0.000%	0.018%	0.016%	0.018%	0.009%	0.007%	0.009%	0.009%	0.012%	0.012%
505	0.005%	0.008%	0.008%	0.004%	0.006%	0.004%	0.006%	0.009%	0.018%	0.005%	0.019%	0.002%	0.002%	0.001%	0.002%	0.001%	0.002%	0.008%	0.006%	0.006%	0.011%	0.011%
506	0.007%	0.009%	0.010%	0.004%	0.004%	0.004%	0.007%	0.007%	0.022%	0.010%	0.025%	0.001%	0.001%	0.012%	0.015%	0.015%	0.015%	0.011%	0.006%	0.006%	0.013%	0.013%
507	0.020%	0.017%	0.025%	0.008%	0.012%	0.008%	0.011%	0.011%	0.032%	0.013%	0.031%	0.001%	0.001%	0.009%	0.001%	0.009%	0.012%	0.012%	0.012%	0.012%	0.020%	0.020%
508	0.006%	0.010%	0.011%	0.005%	0.008%	0.005%	0.011%	0.011%	0.020%	0.010%	0.021%	0.001%	0.001%	0.015%	0.013%	0.013%	0.009%	0.009%	0.009%	0.011%	0.011%	0.011%
509	0.006%	0.014%	0.015%	0.007%	0.014%	0.007%	0.017%	0.017%	0.021%	0.010%	0.025%	0.001%	0.001%	0.015%	0.008%	0.008%	0.020%	0.020%	0.020%	0.020%	0.023%	0.023%
510	0.007%	0.010%	0.011%	0.005%	0.008%	0.005%	0.010%	0.010%	0.020%	0.009%	0.021%	0.000%	0.000%	0.011%	0.011%	0.011%	0.011%	0.016%	0.016%	0.016%	0.016%	0.016%
511	0.005%	0.012%	0.013%	0.004%	0.008%	0.004%	0.011%	0.011%	0.023%	0.011%	0.027%	0.001%	0.001%	0.021%	0.021%	0.021%	0.011%	0.011%	0.011%	0.011%	0.015%	0.015%
512	0.005%	0.011%	0.012%	0.003%	0.006%	0.003%	0.007%	0.007%	0.022%	0.010%	0.020%	0.001%	0.001%	0.021%	0.006%	0.006%	0.011%	0.011%	0.011%	0.011%	0.015%	0.015%
513	0.007%	0.009%	0.011%	0.007%	0.010%	0.007%	0.014%	0.014%	0.020%	0.007%	0.021%	0.002%	0.002%	0.001%	0.003%	0.003%	0.008%	0.008%	0.008%	0.008%	0.013%	0.013%
514	0.011%	0.012%	0.015%	0.004%	0.006%	0.004%	0.007%	0.007%	0.021%	0.010%	0.020%	0.001%	0.001%	0.015%	0.002%	0.002%	0.011%	0.011%	0.011%	0.011%	0.015%	0.015%
515	0.006%	0.011%	0.012%	0.003%	0.007%	0.003%	0.010%	0.010%	0.018%	0.010%	0.019%	0.001%	0.001%	0.010%	0.001%	0.010%	0.009%	0.009%	0.009%	0.010%	0.010%	0.010%
516	0.014%	0.015%	0.019%	0.011%	0.013%	0.011%	0.011%	0.011%	0.032%	0.014%	0.046%	0.001%	0.001%	0.009%	0.040%	0.040%	0.016%	0.016%	0.016%	0.016%	0.022%	0.022%
517	0.010%	0.010%	0.013%	0.007%	0.007%	0.007%	0.005%	0.005%	0.018%	0.008%	0.016%	0.000%	0.000%	0.007%	0.013%	0.013%	0.009%	0.009%	0.009%	0.014%	0.014%	0.014%
518	0.009%	0.014%	0.016%	0.005%	0.011%	0.005%	0.013%	0.013%	0.019%	0.010%	0.018%	0.001%	0.001%	0.006%	0.001%	0.006%	0.011%	0.011%	0.011%	0.011%	0.015%	0.015%
519	0.010%	0.014%	0.016%	0.002%	0.011%	0.002%	0.011%	0.011%	0.028%	0.010%	0.029%	0.001%	0.001%	0.015%	0.011%	0.011%	0.014%	0.014%	0.014%	0.014%	0.019%	0.019%
520	0.017%	0.021%	0.025%	0.013%	0.011%	0.013%	0.019%	0.019%	0.034%	0.013%	0.034%	0.001%	0.001%	0.028%	0.002%	0.028%	0.016%	0.016%	0.016%	0.022%	0.022%	0.022%
521	0.007%	0.007%	0.009%	0.003%	0.002%	0.003%	0.005%	0.005%	0.025%	0.008%	0.025%	0.000%	0.000%	0.023%	0.001%	0.023%	0.008%	0.008%	0.008%	0.009%	0.012%	0.012%
522	0.015%	0.020%	0.020%	0.011%	0.022%	0.011%	0.025%	0.025%	0.049%	0.012%	0.050%	0.001%	0.001%	0.001%	0.002%	0.002%	0.025%	0.025%	0.025%	0.025%	0.026%	0.026%
523	0.007%	0.013%	0.014%	0.009%	0.013%	0.009%	0.017%	0.017%	0.021%	0.010%	0.019%	0.001%	0.001%	0.008%	0.001%	0.008%	0.012%	0.012%	0.012%	0.016%	0.020%	0.020%
524	0.007%	0.011%	0.012%	0.004%	0.009%	0.004%	0.012%	0.012%	0.016%	0.007%	0.013%	0.005%	0.005%	0.013%	0.013%	0.013%	0.007%	0.007%	0.007%	0.010%	0.013%	0.013%
525	0.028%	0.031%	0.040%	0.029%	0.048%	0.029%	0.053%	0.053%	0.032%	0.030%	0.033%	0.003%	0.003%	0.010%	0.006%	0.010%	0.007%	0.007%	0.007%	0.031%	0.032%	0.032%
526	0.015%	0.017%	0.019%	0.017%	0.009%	0.017%	0.018%	0.018%	0.058%	0.026%	0.059%	0.001%	0.001%	0.004%	0.004%	0.004%	0.018%	0.018%	0.018%	0.015%	0.017%	0.017%
527	0.008%	0.010%	0.012%	0.005%	0.010%	0.005%	0.012%	0.012%	0.017%	0.008%	0.016%	0.001%	0.001%	0.006%	0.002%	0.006%	0.010%	0.010%	0.010%	0.014%	0.014%	0.014%
528	0.006%	0.010%	0.011%	0.001%	0.005%	0.001%	0.009%	0.009%	0.019%	0.010%	0.024%	0.000%	0.000%	0.006%	0.015%	0.006%	0.007%	0.007%	0.007%	0.012%	0.012%	0.012%
529	0.006%	0.010%	0.011%	0.007%	0.009%	0.007%	0.013%	0.013%	0.020%	0.007%	0.021%	0.001%	0.001%	0.008%	0.014%	0.008%	0.010%	0.010%	0.010%	0.014%	0.014%	0.014%
530	0.007%	0.017%	0.018%	0.008%	0.016%	0.008%	0.019%	0.019%	0.029%	0.016%	0.032%	0.001%	0.001%	0.020%	0.002%	0.020%	0.010%	0.010%	0.010%	0.018%	0.021%	0.021%
531	0.014%	0.019%	0.019%	0.013%	0.019%	0.013%	0.024%	0.024%	0.042%	0.019%	0.047%	0.009%	0.009%	0.022%	0.045%	0.045%	0.023%	0.023%	0.023%	0.025%	0.031%	0.031%
532	0.007%	0.011%	0.012%	0.006%	0.010%	0.006%	0.012%	0.012%	0.023%	0.014%	0.020%	0.000%	0.000%	0.011%	0.001%	0.011%	0.012%	0.012%	0.012%	0.015%	0.015%	0.015%
533	0.004%	0.005%	0.004%	0.002%	0.005%	0.002%	0.008%	0.008%	0.022%	0.010%	0.023%	0.003%	0.003%	0.004%	0.003%	0.004%	0.009%	0.009%	0.009%	0.012%	0.012%	0.012%
534	0.006%	0.009%	0.010%	0.005%	0.006%	0.005%	0.009%	0.009%	0.019%	0.006%	0.020%	0.000%	0.000%	0.006%	0.003%	0.006%	0.009%	0.009%	0.009%	0.013%	0.013%	0.013%
535	0.008%	0.009%	0.011%	0.005%	0.007%	0.005%	0.009%	0.009%	0.019%	0.008%	0.019%	0.001%	0.001%	0.004%	0.001%	0.004%	0.008%	0.008%	0.008%	0.014%	0.014%	0.014%
536	0.009%	0.016%	0.017%	0.010%	0.013%	0.010%	0.018%	0.018%	0.032%	0.009%	0.034%	0.001%	0.001%	0.006%	0.001%	0.006%	0.014%	0.014%	0.014%	0.020%	0.020%	0.020%
537	0.022%	0.018%	0.027%	0.016%	0.019%	0.016%	0.023%	0.023%	0.027%	0.015%	0.023%	0.002%	0.002%	0.002%	0.004%	0.002%	0.031%	0.031%	0.031%	0.045%	0.045%	0.045%
538	0.009%	0.008%	0.011%	0.005%	0.008%	0.005%	0.010%	0.010%	0.022%	0.012%	0.022%	0.000%	0.000%	0.003%	0.001%	0.003%	0.012%	0.012%	0.012%	0.015%	0.015%	0.015%
539	0.008%	0.008%	0.011%	0.004%	0.005%	0.004%	0.008%	0.008%	0.023%	0.008%	0.023%	0.000%	0.000%	0.016%	0.004%	0.016%	0.007%	0.007%	0.007%	0.011%	0.011%	0.011%
540	0.008%	0.011%	0.013%	0.003%	0.011%	0.003%	0.015%	0.015%	0.026%	0.010%	0.028%	0.001%	0.001%	0.004%	0.001%	0.004%	0.011%	0.011%	0.011%	0.013%	0.013%	0.013%
541	0.010%	0.011%	0.014%	0.009%	0.014%	0.009%	0.018%	0.018%	0.023%	0.011%	0.030%	0.003%	0.003%	0.010%	0.026%	0.012%	0.012%	0.012%	0.014%	0.014%	0.018%	0.018%
542	0.008%	0.008%	0.009%	0.005%	0.008%	0.005%	0.011%	0.011%	0.015%	0.007%	0.011%	0.001%	0.001%	0.004%	0.002%	0.004%	0.013%	0.013%	0.013%	0.019%	0.019%	0.019%
543	0.010%	0.012%	0.010%	0.003%	0.003%	0.003%	0.004%	0.004%	0.033%	0.018%	0.029%	0.001%	0.001%	0.003%	0.028%	0.017%	0.017%	0.017%	0.012%	0.020%	0.020%	0.020%
544	0.008%	0.011%	0.013%	0.005%	0.007%	0.005%	0.010%	0.010%	0.022%	0.010%	0.024%	0.001%	0.001%	0.015%	0.000%	0.015%	0.011%	0.011%	0.011%	0.009%	0.009%	0.015%

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Table A-4: Standard Errors of Estimated Product Shares - 15 Products

DMA®	DTV		DTV		DISH		DISH		Cable		Cable		Telco		Telco		noVideo		noVideo		noBB		
	CableBB	TelcoBB	noBB	noBB	CableBB	TelcoBB	noBB	noBB	CableBB	TelcoBB	noBB												
545	0.017%	0.018%	0.016%	0.012%	0.012%	0.016%	0.021%	0.016%	0.021%	0.016%	0.011%	0.016%	0.004%	0.004%	0.002%	0.019%	0.019%	0.020%	0.026%	0.017%	0.017%	0.018%	0.018%
546	0.012%	0.016%	0.019%	0.010%	0.010%	0.009%	0.015%	0.009%	0.015%	0.026%	0.009%	0.009%	0.004%	0.006%	0.007%	0.012%	0.012%	0.012%	0.007%	0.007%	0.012%	0.012%	0.017%
547	0.010%	0.010%	0.013%	0.006%	0.006%	0.010%	0.014%	0.010%	0.014%	0.021%	0.012%	0.012%	0.001%	0.005%	0.002%	0.013%	0.013%	0.012%	0.002%	0.002%	0.013%	0.018%	0.018%
548	0.005%	0.009%	0.010%	0.004%	0.004%	0.006%	0.002%	0.002%	0.002%	0.023%	0.012%	0.022%	0.001%	0.005%	0.004%	0.005%	0.005%	0.007%	0.004%	0.009%	0.009%	0.009%	0.009%
549	0.021%	0.024%	0.030%	0.015%	0.015%	0.022%	0.022%	0.022%	0.022%	0.033%	0.022%	0.022%	0.024%	0.002%	0.003%	0.031%	0.031%	0.017%	0.007%	0.007%	0.035%	0.035%	0.035%
550	0.017%	0.010%	0.019%	0.013%	0.013%	0.011%	0.018%	0.017%	0.018%	0.038%	0.006%	0.039%	0.025%	0.000%	0.003%	0.008%	0.008%	0.007%	0.001%	0.003%	0.003%	0.003%	0.003%
551	0.008%	0.012%	0.013%	0.007%	0.007%	0.016%	0.017%	0.016%	0.017%	0.025%	0.009%	0.009%	0.025%	0.002%	0.001%	0.010%	0.010%	0.015%	0.001%	0.001%	0.015%	0.019%	0.019%
552	0.016%	0.037%	0.039%	0.052%	0.052%	0.053%	0.015%	0.053%	0.015%	0.095%	0.061%	0.044%	0.104%	0.002%	0.003%	0.005%	0.015%	0.015%	0.005%	0.009%	0.009%	0.009%	0.009%
553	0.018%	0.023%	0.027%	0.008%	0.008%	0.012%	0.016%	0.012%	0.016%	0.042%	0.019%	0.043%	0.043%	0.001%	0.002%	0.016%	0.016%	0.016%	0.002%	0.002%	0.016%	0.035%	0.035%
554	0.010%	0.021%	0.021%	0.007%	0.007%	0.023%	0.022%	0.023%	0.022%	0.058%	0.029%	0.056%	0.056%	0.014%	0.002%	0.020%	0.020%	0.008%	0.002%	0.002%	0.008%	0.022%	0.022%
555	0.006%	0.008%	0.009%	0.005%	0.005%	0.007%	0.009%	0.007%	0.009%	0.025%	0.009%	0.027%	0.027%	0.005%	0.013%	0.013%	0.010%	0.005%	0.005%	0.013%	0.016%	0.016%	
556	0.008%	0.011%	0.014%	0.006%	0.006%	0.008%	0.011%	0.008%	0.011%	0.022%	0.006%	0.020%	0.020%	0.019%	0.010%	0.011%	0.011%	0.011%	0.019%	0.010%	0.011%	0.015%	0.015%
557	0.008%	0.013%	0.015%	0.008%	0.008%	0.010%	0.014%	0.010%	0.014%	0.022%	0.008%	0.024%	0.024%	0.005%	0.017%	0.010%	0.010%	0.010%	0.017%	0.011%	0.010%	0.015%	0.015%
558	0.013%	0.019%	0.016%	0.009%	0.009%	0.016%	0.018%	0.016%	0.018%	0.052%	0.037%	0.028%	0.028%	0.002%	0.013%	0.016%	0.016%	0.022%	0.002%	0.002%	0.019%	0.019%	0.019%
559	0.022%	0.028%	0.035%	0.020%	0.020%	0.048%	0.051%	0.048%	0.051%	0.064%	0.034%	0.067%	0.067%	0.001%	0.003%	0.027%	0.027%	0.027%	0.003%	0.003%	0.027%	0.007%	0.007%
560	0.007%	0.011%	0.011%	0.006%	0.006%	0.010%	0.014%	0.010%	0.014%	0.019%	0.008%	0.020%	0.020%	0.004%	0.004%	0.014%	0.014%	0.008%	0.004%	0.008%	0.016%	0.016%	0.016%
561	0.006%	0.010%	0.011%	0.005%	0.005%	0.010%	0.013%	0.010%	0.013%	0.017%	0.009%	0.017%	0.017%	0.002%	0.003%	0.010%	0.010%	0.010%	0.001%	0.001%	0.010%	0.015%	0.015%
563	0.005%	0.008%	0.009%	0.005%	0.005%	0.009%	0.012%	0.009%	0.012%	0.018%	0.007%	0.020%	0.020%	0.001%	0.001%	0.008%	0.008%	0.010%	0.001%	0.001%	0.008%	0.013%	0.013%
564	0.011%	0.016%	0.018%	0.010%	0.010%	0.017%	0.020%	0.017%	0.020%	0.027%	0.012%	0.028%	0.028%	0.001%	0.001%	0.015%	0.015%	0.012%	0.001%	0.001%	0.015%	0.019%	0.019%
565	0.027%	0.025%	0.035%	0.009%	0.009%	0.010%	0.014%	0.010%	0.014%	0.026%	0.017%	0.019%	0.019%	0.002%	0.003%	0.016%	0.016%	0.010%	0.002%	0.002%	0.016%	0.019%	0.019%
566	0.008%	0.009%	0.009%	0.004%	0.004%	0.009%	0.010%	0.009%	0.010%	0.022%	0.011%	0.022%	0.022%	0.002%	0.002%	0.009%	0.009%	0.012%	0.002%	0.002%	0.009%	0.015%	0.015%
567	0.008%	0.011%	0.013%	0.006%	0.006%	0.009%	0.013%	0.009%	0.013%	0.016%	0.005%	0.021%	0.021%	0.001%	0.001%	0.010%	0.010%	0.011%	0.001%	0.001%	0.010%	0.016%	0.016%
569	0.019%	0.020%	0.027%	0.006%	0.006%	0.027%	0.029%	0.027%	0.029%	0.048%	0.021%	0.049%	0.049%	0.006%	0.003%	0.018%	0.018%	0.027%	0.006%	0.006%	0.018%	0.033%	0.033%
570	0.013%	0.013%	0.014%	0.008%	0.008%	0.010%	0.008%	0.010%	0.008%	0.038%	0.014%	0.038%	0.038%	0.002%	0.002%	0.030%	0.030%	0.013%	0.002%	0.002%	0.018%	0.018%	0.018%
571	0.007%	0.011%	0.013%	0.004%	0.004%	0.009%	0.012%	0.009%	0.012%	0.023%	0.011%	0.024%	0.024%	0.001%	0.001%	0.011%	0.011%	0.009%	0.004%	0.009%	0.012%	0.012%	0.012%
573	0.010%	0.017%	0.019%	0.008%	0.008%	0.015%	0.018%	0.015%	0.018%	0.023%	0.010%	0.024%	0.024%	0.001%	0.001%	0.012%	0.012%	0.014%	0.001%	0.001%	0.012%	0.016%	0.016%
574	0.007%	0.015%	0.016%	0.007%	0.007%	0.018%	0.020%	0.018%	0.020%	0.020%	0.015%	0.022%	0.022%	0.001%	0.001%	0.020%	0.020%	0.013%	0.001%	0.001%	0.016%	0.016%	0.016%
575	0.010%	0.012%	0.014%	0.007%	0.007%	0.012%	0.015%	0.012%	0.015%	0.028%	0.011%	0.038%	0.038%	0.000%	0.000%	0.017%	0.017%	0.016%	0.007%	0.007%	0.016%	0.019%	0.019%
576	0.017%	0.023%	0.026%	0.009%	0.009%	0.009%	0.004%	0.009%	0.004%	0.039%	0.015%	0.041%	0.041%	0.001%	0.001%	0.018%	0.018%	0.011%	0.001%	0.001%	0.018%	0.021%	0.021%
577	0.011%	0.013%	0.015%	0.007%	0.007%	0.011%	0.012%	0.011%	0.012%	0.023%	0.015%	0.025%	0.025%	0.005%	0.005%	0.010%	0.010%	0.013%	0.001%	0.001%	0.013%	0.015%	0.015%
581	0.015%	0.015%	0.007%	0.022%	0.022%	0.029%	0.036%	0.029%	0.036%	0.047%	0.027%	0.049%	0.049%	0.001%	0.001%	0.020%	0.020%	0.027%	0.002%	0.002%	0.027%	0.033%	0.033%
582	0.020%	0.020%	0.003%	0.007%	0.007%	0.021%	0.023%	0.021%	0.023%	0.039%	0.030%	0.023%	0.023%	0.002%	0.003%	0.028%	0.028%	0.025%	0.003%	0.003%	0.028%	0.037%	0.037%
583	0.018%	0.013%	0.015%	0.021%	0.021%	0.021%	0.030%	0.021%	0.030%	0.032%	0.008%	0.007%	0.007%	0.004%	0.009%	0.021%	0.021%	0.025%	0.009%	0.009%	0.025%	0.037%	0.037%
584	0.002%	0.020%	0.020%	0.007%	0.007%	0.029%	0.030%	0.029%	0.030%	0.051%	0.025%	0.051%	0.051%	0.001%	0.001%	0.019%	0.019%	0.025%	0.002%	0.002%	0.019%	0.030%	0.030%
588	0.010%	0.017%	0.018%	0.010%	0.010%	0.014%	0.016%	0.014%	0.016%	0.022%	0.008%	0.023%	0.023%	0.003%	0.003%	0.010%	0.010%	0.016%	0.004%	0.004%	0.016%	0.019%	0.019%
592	0.014%	0.020%	0.019%	0.014%	0.014%	0.030%	0.033%	0.030%	0.033%	0.026%	0.019%	0.018%	0.018%	0.001%	0.001%	0.022%	0.022%	0.028%	0.001%	0.001%	0.022%	0.033%	0.033%
596	0.017%	0.019%	0.024%	0.012%	0.012%	0.016%	0.008%	0.016%	0.008%	0.086%	0.012%	0.087%	0.087%	0.002%	0.002%	0.048%	0.048%	0.018%	0.004%	0.004%	0.018%	0.051%	0.051%
597	0.046%	0.033%	0.055%	0.011%	0.011%	0.021%	0.023%	0.021%	0.023%	0.046%	0.036%	0.046%	0.046%	0.002%	0.002%	0.015%	0.015%	0.008%	0.004%	0.004%	0.008%	0.007%	0.007%
598	0.028%	0.029%	0.039%	0.031%	0.031%	0.035%	0.028%	0.035%	0.028%	0.036%	0.019%	0.030%	0.030%	0.007%	0.005%	0.022%	0.022%	0.024%	0.002%	0.002%	0.022%	0.024%	0.024%
600	0.024%	0.021%	0.030%	0.021%	0.021%	0.009%	0.023%	0.009%	0.023%	0.047%	0.006%	0.047%	0.047%	0.001%	0.001%	0.018%	0.018%	0.022%	0.002%	0.002%	0.018%	0.029%	0.029%
602	0.005%	0.010%	0.011%	0.006%	0.006%	0.008%	0.012%	0.008%	0.012%	0.019%	0.012%	0.019%	0.019%	0.001%	0.001%	0.010%	0.010%	0.010%	0.001%	0.001%	0.010%	0.015%	0.015%
603	0.012%	0.021%	0.024%	0.013%	0.013%	0.030%	0.034%	0.030%	0.034%	0.034%	0.013%	0.034%	0.034%	0.004%	0.003%	0.025%	0.025%	0.024%	0.003%	0.003%	0.025%	0.034%	0.034%
604	0.009%	0.016%	0.018%	0.009%	0.009%	0.021%	0.024%	0.021%	0.024%	0.019%	0.013%	0.009%	0.009%	0.002%	0.003%	0.013%	0.013%	0.019%	0.003%	0.003%	0.013%	0.024%	0.024%
605	0.003%	0.013%	0.013%	0.004%	0.004%	0.015%	0.018%	0.015%	0.018%	0.035%	0.011%	0.038%	0.038%	0.002%	0.002%	0.019%	0.019%	0.015%	0.003%	0.003%	0.015%	0.024%	0.024%
606	0.026%	0.036%	0.043%	0.009%	0.009%	0.046%	0.047%	0.046%	0.047%	0.070%	0.040%	0.076%	0.076%	0.001%	0.001%	0.034%	0.034%	0.007%	0.003%	0.003%	0.007%	0.008%	0.008%

REDACTED - FOR PUBLIC INSPECTION

Table A-4: Standard Errors of Estimated Product Shares - 15 Products

DMA®	DTV		DTV		DISH		DISH		Cable		Telco		Telco		noVideo		noVideo		noBB	
	CableBB	TelcoBB	noBB	noBB	CableBB	TelcoBB	noBB	noBB	CableBB	TelcoBB	noBB	noBB	CableBB	TelcoBB	noBB	noBB	CableBB	TelcoBB	noBB	noBB
609	0.007%	0.009%	0.011%	0.006%	0.008%	0.012%	0.008%	0.012%	0.017%	0.005%	0.019%	0.002%	0.004%	0.002%	0.010%	0.014%	0.010%	0.014%	0.010%	0.014%
610	0.016%	0.014%	0.017%	0.013%	0.012%	0.019%	0.012%	0.019%	0.022%	0.013%	0.016%	0.001%	0.007%	0.002%	0.016%	0.014%	0.016%	0.014%	0.016%	0.020%
611	0.009%	0.017%	0.019%	0.005%	0.012%	0.013%	0.012%	0.013%	0.036%	0.014%	0.045%	0.001%	0.021%	0.038%	0.020%	0.024%	0.020%	0.024%	0.031%	0.031%
612	0.020%	0.020%	0.027%	0.011%	0.023%	0.026%	0.023%	0.026%	0.026%	0.010%	0.028%	0.001%	0.010%	0.003%	0.008%	0.015%	0.008%	0.015%	0.018%	0.018%
613	0.005%	0.010%	0.011%	0.005%	0.008%	0.012%	0.008%	0.012%	0.018%	0.007%	0.021%	0.000%	0.007%	0.012%	0.008%	0.011%	0.008%	0.011%	0.015%	0.015%
616	0.006%	0.007%	0.009%	0.005%	0.008%	0.011%	0.008%	0.011%	0.016%	0.005%	0.021%	0.000%	0.009%	0.014%	0.010%	0.009%	0.014%	0.009%	0.015%	0.015%
617	0.006%	0.006%	0.008%	0.005%	0.005%	0.009%	0.005%	0.009%	0.020%	0.008%	0.022%	0.003%	0.002%	0.002%	0.012%	0.008%	0.012%	0.008%	0.015%	0.015%
618	0.008%	0.009%	0.012%	0.006%	0.007%	0.011%	0.007%	0.011%	0.017%	0.008%	0.020%	0.002%	0.006%	0.005%	0.011%	0.008%	0.011%	0.008%	0.015%	0.015%
619	0.005%	0.015%	0.016%	0.007%	0.015%	0.018%	0.015%	0.018%	0.015%	0.007%	0.015%	0.004%	0.004%	0.003%	0.014%	0.014%	0.014%	0.019%	0.019%	0.019%
622	0.010%	0.011%	0.015%	0.005%	0.007%	0.011%	0.007%	0.011%	0.022%	0.010%	0.024%	0.001%	0.001%	0.002%	0.012%	0.010%	0.012%	0.010%	0.016%	0.016%
623	0.006%	0.008%	0.010%	0.005%	0.007%	0.012%	0.007%	0.012%	0.013%	0.006%	0.019%	0.001%	0.012%	0.014%	0.007%	0.010%	0.007%	0.010%	0.014%	0.014%
624	0.013%	0.013%	0.018%	0.016%	0.020%	0.026%	0.020%	0.026%	0.036%	0.018%	0.053%	0.001%	0.027%	0.048%	0.019%	0.020%	0.019%	0.020%	0.027%	0.027%
625	0.012%	0.012%	0.016%	0.007%	0.010%	0.014%	0.010%	0.014%	0.028%	0.012%	0.030%	0.001%	0.005%	0.001%	0.016%	0.012%	0.016%	0.012%	0.021%	0.021%
626	0.005%	0.015%	0.010%	0.041%	0.028%	0.044%	0.028%	0.044%	0.113%	0.007%	0.113%	0.003%	0.003%	0.005%	0.016%	0.009%	0.016%	0.009%	0.007%	0.007%
627	0.019%	0.019%	0.009%	0.012%	0.028%	0.031%	0.028%	0.031%	0.028%	0.006%	0.066%	0.002%	0.007%	0.004%	0.030%	0.014%	0.030%	0.014%	0.033%	0.033%
628	0.018%	0.017%	0.011%	0.023%	0.033%	0.041%	0.027%	0.041%	0.027%	0.021%	0.021%	0.002%	0.002%	0.005%	0.001%	0.029%	0.001%	0.029%	0.029%	0.029%
630	0.009%	0.014%	0.016%	0.006%	0.010%	0.014%	0.010%	0.014%	0.019%	0.008%	0.021%	0.003%	0.003%	0.003%	0.012%	0.011%	0.012%	0.011%	0.016%	0.016%
631	0.023%	0.029%	0.024%	0.010%	0.040%	0.040%	0.040%	0.040%	0.036%	0.015%	0.006%	0.003%	0.037%	0.006%	0.043%	0.063%	0.043%	0.063%	0.072%	0.072%
632	0.013%	0.017%	0.020%	0.009%	0.016%	0.019%	0.016%	0.019%	0.021%	0.009%	0.022%	0.001%	0.007%	0.002%	0.014%	0.017%	0.014%	0.017%	0.022%	0.022%
633	0.011%	0.012%	0.009%	0.024%	0.024%	0.024%	0.024%	0.024%	0.077%	0.004%	0.078%	0.003%	0.003%	0.003%	0.013%	0.009%	0.013%	0.009%	0.010%	0.010%
634	0.013%	0.018%	0.022%	0.015%	0.020%	0.026%	0.020%	0.026%	0.041%	0.004%	0.042%	0.001%	0.001%	0.002%	0.013%	0.021%	0.013%	0.021%	0.025%	0.025%
635	0.006%	0.008%	0.010%	0.004%	0.005%	0.009%	0.005%	0.009%	0.018%	0.007%	0.019%	0.004%	0.004%	0.004%	0.012%	0.008%	0.012%	0.008%	0.015%	0.015%
636	0.021%	0.020%	0.028%	0.020%	0.019%	0.028%	0.019%	0.028%	0.040%	0.019%	0.042%	0.001%	0.001%	0.002%	0.013%	0.026%	0.013%	0.026%	0.026%	0.026%
637	0.008%	0.013%	0.015%	0.004%	0.011%	0.013%	0.011%	0.013%	0.022%	0.008%	0.023%	0.001%	0.017%	0.020%	0.009%	0.013%	0.009%	0.013%	0.016%	0.016%
638	0.011%	0.013%	0.011%	0.042%	0.036%	0.047%	0.036%	0.047%	0.065%	0.018%	0.066%	0.001%	0.013%	0.003%	0.067%	0.041%	0.067%	0.041%	0.076%	0.076%
639	0.007%	0.020%	0.021%	0.011%	0.022%	0.019%	0.022%	0.019%	0.060%	0.007%	0.065%	0.001%	0.031%	0.019%	0.020%	0.026%	0.020%	0.026%	0.033%	0.033%
640	0.008%	0.013%	0.015%	0.005%	0.009%	0.013%	0.009%	0.013%	0.020%	0.011%	0.023%	0.001%	0.000%	0.001%	0.010%	0.011%	0.010%	0.011%	0.016%	0.016%
641	0.008%	0.009%	0.011%	0.006%	0.006%	0.011%	0.006%	0.011%	0.018%	0.007%	0.020%	0.001%	0.007%	0.004%	0.009%	0.014%	0.009%	0.014%	0.014%	0.014%
642	0.017%	0.024%	0.029%	0.013%	0.015%	0.013%	0.015%	0.013%	0.039%	0.021%	0.006%	0.002%	0.026%	0.028%	0.007%	0.014%	0.028%	0.007%	0.014%	0.014%
643	0.059%	0.057%	0.047%	0.024%	0.019%	0.010%	0.019%	0.010%	0.076%	0.005%	0.005%	0.002%	0.002%	0.005%	0.029%	0.028%	0.029%	0.028%	0.010%	0.010%
644	0.029%	0.028%	0.034%	0.011%	0.038%	0.038%	0.038%	0.038%	0.090%	0.030%	0.092%	0.001%	0.001%	0.003%	0.034%	0.027%	0.034%	0.027%	0.036%	0.036%
647	0.035%	0.034%	0.017%	0.016%	0.012%	0.022%	0.012%	0.022%	0.086%	0.038%	0.093%	0.002%	0.002%	0.004%	0.002%	0.039%	0.002%	0.039%	0.039%	0.039%
648	0.011%	0.012%	0.015%	0.006%	0.012%	0.015%	0.012%	0.015%	0.022%	0.010%	0.022%	0.003%	0.010%	0.006%	0.012%	0.016%	0.010%	0.012%	0.016%	0.016%
649	0.012%	0.013%	0.017%	0.010%	0.015%	0.017%	0.015%	0.017%	0.031%	0.013%	0.034%	0.001%	0.001%	0.001%	0.012%	0.010%	0.012%	0.010%	0.018%	0.018%
650	0.007%	0.008%	0.011%	0.004%	0.008%	0.012%	0.008%	0.012%	0.021%	0.007%	0.022%	0.002%	0.005%	0.005%	0.016%	0.012%	0.005%	0.016%	0.016%	0.016%
651	0.005%	0.011%	0.012%	0.018%	0.018%	0.027%	0.018%	0.027%	0.032%	0.010%	0.038%	0.001%	0.021%	0.002%	0.017%	0.016%	0.002%	0.017%	0.023%	0.023%
652	0.009%	0.009%	0.013%	0.007%	0.009%	0.013%	0.009%	0.013%	0.023%	0.006%	0.025%	0.000%	0.009%	0.017%	0.009%	0.011%	0.009%	0.017%	0.015%	0.015%
656	0.017%	0.015%	0.018%	0.013%	0.020%	0.024%	0.020%	0.024%	0.049%	0.015%	0.055%	0.001%	0.011%	0.054%	0.018%	0.025%	0.018%	0.025%	0.025%	0.025%
657	0.018%	0.027%	0.031%	0.034%	0.019%	0.040%	0.019%	0.040%	0.045%	0.022%	0.042%	0.002%	0.020%	0.004%	0.024%	0.025%	0.004%	0.024%	0.007%	0.007%
658	0.004%	0.008%	0.009%	0.005%	0.008%	0.012%	0.008%	0.012%	0.019%	0.006%	0.020%	0.001%	0.004%	0.017%	0.008%	0.025%	0.011%	0.008%	0.015%	0.015%
659	0.006%	0.009%	0.010%	0.006%	0.009%	0.013%	0.009%	0.013%	0.018%	0.007%	0.019%	0.002%	0.004%	0.004%	0.009%	0.008%	0.004%	0.009%	0.012%	0.012%
661	0.020%	0.017%	0.009%	0.018%	0.049%	0.050%	0.049%	0.050%	0.097%	0.049%	0.099%	0.001%	0.001%	0.002%	0.012%	0.016%	0.002%	0.012%	0.010%	0.010%
662	0.018%	0.029%	0.033%	0.009%	0.050%	0.051%	0.050%	0.051%	0.022%	0.008%	0.005%	0.002%	0.017%	0.005%	0.024%	0.022%	0.005%	0.024%	0.032%	0.032%
669	0.007%	0.009%	0.010%	0.006%	0.008%	0.013%	0.008%	0.013%	0.019%	0.006%	0.020%	0.001%	0.007%	0.002%	0.014%	0.010%	0.002%	0.014%	0.018%	0.018%
670	0.014%	0.016%	0.021%	0.015%	0.017%	0.022%	0.017%	0.022%	0.024%	0.012%	0.022%	0.003%	0.001%	0.003%	0.020%	0.014%	0.020%	0.014%	0.023%	0.023%

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Table A-4: Standard Errors of Estimated Product Shares - 15 Products

DMA®	DTV		DTV		DISH		DISH		Cable		Telco		Telco		noVideo		noVideo	
	CableBB	TelcoBB	noBB	noBB	CableBB	TelcoBB	CableBB	TelcoBB	noBB	noBB	CableBB	TelcoBB	noBB	noBB	CableBB	TelcoBB	noBB	noBB
671	0.006%	0.010%	0.012%	0.004%	0.009%	0.010%	0.013%	0.008%	0.020%	0.002%	0.001%	0.002%	0.001%	0.012%	0.012%	0.018%	0.018%	
673	0.022%	0.032%	0.037%	0.012%	0.026%	0.026%	0.029%	0.022%	0.020%	0.006%	0.002%	0.002%	0.005%	0.015%	0.015%	0.026%	0.026%	
675	0.015%	0.017%	0.021%	0.007%	0.011%	0.011%	0.015%	0.015%	0.034%	0.034%	0.010%	0.013%	0.013%	0.017%	0.015%	0.021%	0.021%	
676	0.011%	0.017%	0.020%	0.007%	0.014%	0.009%	0.017%	0.009%	0.026%	0.026%	0.009%	0.008%	0.008%	0.016%	0.018%	0.024%	0.024%	
678	0.008%	0.011%	0.013%	0.007%	0.009%	0.012%	0.008%	0.010%	0.018%	0.011%	0.007%	0.012%	0.016%	0.010%	0.018%	0.018%	0.018%	
679	0.008%	0.012%	0.014%	0.005%	0.012%	0.014%	0.015%	0.011%	0.018%	0.011%	0.005%	0.007%	0.016%	0.013%	0.015%	0.018%	0.018%	
682	0.013%	0.013%	0.017%	0.009%	0.014%	0.010%	0.018%	0.007%	0.017%	0.011%	0.005%	0.004%	0.016%	0.013%	0.015%	0.018%	0.018%	
686	0.012%	0.014%	0.016%	0.009%	0.010%	0.009%	0.008%	0.007%	0.027%	0.027%	0.004%	0.001%	0.012%	0.010%	0.015%	0.015%	0.015%	
687	0.001%	0.026%	0.026%	0.002%	0.010%	0.004%	0.004%	0.003%	0.002%	0.002%	0.043%	0.044%	0.030%	0.030%	0.030%	0.030%	0.030%	
691	0.016%	0.018%	0.022%	0.009%	0.014%	0.019%	0.019%	0.013%	0.026%	0.026%	0.008%	0.009%	0.013%	0.013%	0.019%	0.019%	0.019%	
692	0.023%	0.025%	0.033%	0.010%	0.023%	0.026%	0.048%	0.013%	0.050%	0.050%	0.001%	0.002%	0.015%	0.022%	0.027%	0.027%	0.027%	
693	0.009%	0.013%	0.016%	0.007%	0.016%	0.018%	0.018%	0.010%	0.024%	0.024%	0.000%	0.020%	0.008%	0.011%	0.015%	0.015%	0.015%	
698	0.018%	0.021%	0.021%	0.012%	0.020%	0.022%	0.053%	0.021%	0.054%	0.054%	0.020%	0.002%	0.013%	0.024%	0.024%	0.024%	0.024%	
702	0.008%	0.013%	0.015%	0.007%	0.011%	0.014%	0.014%	0.007%	0.028%	0.028%	0.016%	0.016%	0.014%	0.021%	0.021%	0.021%	0.021%	
705	0.007%	0.011%	0.013%	0.014%	0.016%	0.021%	0.025%	0.009%	0.025%	0.025%	0.002%	0.012%	0.002%	0.015%	0.023%	0.023%	0.023%	
709	0.009%	0.017%	0.019%	0.012%	0.017%	0.022%	0.026%	0.007%	0.026%	0.026%	0.001%	0.007%	0.009%	0.013%	0.019%	0.019%	0.019%	
710	0.028%	0.038%	0.046%	0.029%	0.023%	0.037%	0.053%	0.032%	0.060%	0.060%	0.002%	0.002%	0.003%	0.007%	0.019%	0.020%	0.020%	
711	0.048%	0.058%	0.068%	0.005%	0.051%	0.051%	0.056%	0.055%	0.008%	0.008%	0.004%	0.008%	0.008%	0.029%	0.023%	0.014%	0.014%	
716	0.016%	0.013%	0.020%	0.011%	0.009%	0.016%	0.033%	0.033%	0.036%	0.036%	0.012%	0.012%	0.013%	0.012%	0.017%	0.017%	0.017%	
717	0.007%	0.020%	0.020%	0.025%	0.046%	0.050%	0.031%	0.026%	0.005%	0.005%	0.018%	0.018%	0.016%	0.016%	0.037%	0.037%	0.037%	
718	0.012%	0.020%	0.023%	0.007%	0.012%	0.017%	0.018%	0.016%	0.012%	0.012%	0.002%	0.002%	0.003%	0.012%	0.015%	0.019%	0.019%	
722	0.010%	0.015%	0.017%	0.009%	0.020%	0.022%	0.027%	0.015%	0.030%	0.030%	0.007%	0.007%	0.009%	0.015%	0.014%	0.020%	0.020%	
724	0.005%	0.009%	0.010%	0.003%	0.013%	0.015%	0.023%	0.015%	0.016%	0.016%	0.029%	0.032%	0.009%	0.018%	0.022%	0.022%	0.022%	
725	0.022%	0.014%	0.014%	0.003%	0.015%	0.017%	0.013%	0.003%	0.037%	0.037%	0.032%	0.041%	0.003%	0.019%	0.020%	0.020%	0.020%	
734	0.008%	0.035%	0.044%	0.027%	0.027%	0.038%	0.030%	0.020%	0.020%	0.020%	0.003%	0.003%	0.005%	0.020%	0.028%	0.034%	0.034%	
736	0.008%	0.020%	0.021%	0.004%	0.035%	0.036%	0.061%	0.005%	0.067%	0.067%	0.001%	0.001%	0.014%	0.025%	0.031%	0.031%	0.031%	
737	0.024%	0.018%	0.030%	0.019%	0.018%	0.015%	0.060%	0.018%	0.081%	0.081%	0.034%	0.034%	0.019%	0.024%	0.031%	0.031%	0.031%	
740	0.002%	0.021%	0.021%	0.002%	0.020%	0.022%	0.066%	0.050%	0.009%	0.009%	0.059%	0.009%	0.009%	0.023%	0.020%	0.020%	0.020%	
743	0.007%	0.010%	0.010%	0.011%	0.017%	0.021%	0.031%	0.011%	0.034%	0.034%	0.013%	0.013%	0.010%	0.020%	0.027%	0.027%	0.027%	
744	0.004%	0.005%	0.007%	0.004%	0.005%	0.004%	0.024%	0.015%	0.025%	0.025%	0.009%	0.009%	0.005%	0.008%	0.013%	0.013%	0.013%	
745	0.004%	0.025%	0.025%	0.005%	0.010%	0.014%	0.031%	0.027%	0.009%	0.009%	0.003%	0.003%	0.005%	0.030%	0.065%	0.065%	0.065%	
746	0.035%	0.025%	0.040%	0.017%	0.017%	0.025%	0.035%	0.024%	0.027%	0.027%	0.002%	0.002%	0.004%	0.030%	0.025%	0.038%	0.038%	
747	0.013%	0.015%	0.019%	0.004%	0.005%	0.010%	0.081%	0.056%	0.089%	0.089%	0.001%	0.001%	0.002%	0.049%	0.053%	0.053%	0.053%	
749	0.041%	0.031%	0.045%	0.024%	0.017%	0.013%	0.082%	0.025%	0.083%	0.083%	0.001%	0.001%	0.002%	0.030%	0.016%	0.016%	0.016%	
751	0.006%	0.013%	0.014%	0.006%	0.010%	0.013%	0.018%	0.007%	0.019%	0.019%	0.006%	0.006%	0.004%	0.011%	0.018%	0.018%	0.018%	
752	0.008%	0.016%	0.016%	0.005%	0.012%	0.012%	0.021%	0.006%	0.012%	0.012%	0.000%	0.000%	0.019%	0.010%	0.020%	0.020%	0.020%	
753	0.010%	0.013%	0.015%	0.006%	0.007%	0.011%	0.017%	0.003%	0.018%	0.018%	0.005%	0.005%	0.010%	0.010%	0.015%	0.015%	0.015%	
754	0.012%	0.025%	0.027%	0.004%	0.027%	0.029%	0.037%	0.003%	0.038%	0.038%	0.001%	0.001%	0.003%	0.030%	0.041%	0.041%	0.041%	
755	0.014%	0.016%	0.012%	0.029%	0.038%	0.036%	0.033%	0.005%	0.005%	0.005%	0.029%	0.029%	0.005%	0.038%	0.055%	0.064%	0.064%	
756	0.008%	0.022%	0.023%	0.012%	0.025%	0.028%	0.024%	0.012%	0.016%	0.016%	0.002%	0.002%	0.003%	0.026%	0.033%	0.039%	0.039%	
757	0.009%	0.019%	0.020%	0.005%	0.012%	0.014%	0.019%	0.011%	0.023%	0.023%	0.004%	0.004%	0.013%	0.020%	0.020%	0.023%	0.023%	
758	0.009%	0.020%	0.019%	0.021%	0.038%	0.042%	0.039%	0.030%	0.045%	0.045%	0.001%	0.001%	0.002%	0.034%	0.035%	0.027%	0.027%	
759	0.022%	0.014%	0.021%	0.011%	0.053%	0.054%	0.060%	0.018%	0.059%	0.059%	0.002%	0.002%	0.004%	0.038%	0.044%	0.044%	0.044%	
760	0.004%	0.046%	0.046%	0.019%	0.068%	0.069%	0.051%	0.035%	0.035%	0.035%	0.019%	0.019%	0.006%	0.045%	0.039%	0.046%	0.046%	
762	0.005%	0.023%	0.023%	0.006%	0.032%	0.032%	0.019%	0.014%	0.004%	0.004%	0.005%	0.005%	0.004%	0.027%	0.026%	0.036%	0.036%	

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Table A-4: Standard Errors of Estimated Product Shares - 15 Products

DMA®	DTV		DTV		DISH		DISH		Cable		Telco		noVideo		noVideo		noBB	
	CableBB	TelcoBB																
764	0.019%	0.020%	0.022%	0.019%	0.027%	0.012%	0.041%	0.002%	0.002%	0.018%	0.050%	0.027%	0.043%	0.049%				
765	0.014%	0.017%	0.021%	0.007%	0.012%	0.015%	0.024%	0.011%	0.033%	0.001%	0.002%	0.025%	0.011%	0.020%				
766	0.011%	0.013%	0.013%	0.001%	0.040%	0.041%	0.039%	0.034%	0.006%	0.003%	0.003%	0.006%	0.046%	0.046%				
767	0.005%	0.011%	0.007%	0.051%	0.074%	0.078%	0.050%	0.005%	0.048%	0.002%	0.002%	0.005%	0.017%	0.007%				
770	0.005%	0.011%	0.016%	0.004%	0.010%	0.013%	0.016%	0.008%	0.019%	0.008%	0.008%	0.007%	0.011%	0.017%				
771	0.026%	0.026%	0.035%	0.028%	0.025%	0.033%	0.055%	0.019%	0.059%	0.001%	0.001%	0.002%	0.037%	0.047%				
773	0.002%	0.023%	0.023%	0.021%	0.024%	0.014%	0.049%	0.010%	0.050%	0.001%	0.001%	0.002%	0.043%	0.056%				
789	0.009%	0.012%	0.014%	0.006%	0.008%	0.012%	0.014%	0.006%	0.012%	0.003%	0.002%	0.002%	0.008%	0.015%				
790	0.008%	0.015%	0.016%	0.005%	0.010%	0.012%	0.015%	0.008%	0.014%	0.007%	0.007%	0.011%	0.016%	0.020%				
798	0.001%	0.002%	0.001%	0.002%	0.004%	0.004%	0.011%	0.018%	0.021%	0.082%	0.021%	0.002%	0.004%	0.003%				
800	0.015%	0.020%	0.019%	0.009%	0.011%	0.007%	0.046%	0.019%	0.048%	0.001%	0.006%	0.026%	0.022%	0.034%				
801	0.008%	0.012%	0.011%	0.008%	0.011%	0.015%	0.024%	0.011%	0.023%	0.004%	0.004%	0.018%	0.016%	0.024%				
802	0.030%	0.029%	0.035%	0.036%	0.016%	0.040%	0.024%	0.012%	0.012%	0.003%	0.006%	0.061%	0.026%	0.065%				
803	0.010%	0.011%	0.015%	0.005%	0.008%	0.012%	0.017%	0.007%	0.017%	0.012%	0.002%	0.012%	0.009%	0.016%				
804	0.013%	0.013%	0.004%	0.012%	0.011%	0.009%	0.045%	0.021%	0.041%	0.029%	0.015%	0.018%	0.010%	0.021%				
807	0.005%	0.008%	0.008%	0.004%	0.007%	0.003%	0.021%	0.010%	0.022%	0.001%	0.002%	0.010%	0.013%	0.016%				
810	0.013%	0.015%	0.019%	0.013%	0.017%	0.022%	0.025%	0.010%	0.026%	0.006%	0.002%	0.019%	0.021%	0.027%				
811	0.010%	0.012%	0.012%	0.012%	0.015%	0.018%	0.023%	0.011%	0.023%	0.002%	0.003%	0.020%	0.014%	0.024%				
813	0.018%	0.018%	0.024%	0.015%	0.015%	0.022%	0.027%	0.008%	0.029%	0.008%	0.002%	0.022%	0.019%	0.028%				
819	0.006%	0.009%	0.010%	0.004%	0.007%	0.010%	0.021%	0.007%	0.024%	0.004%	0.013%	0.010%	0.011%	0.015%				
820	0.006%	0.010%	0.011%	0.004%	0.008%	0.011%	0.017%	0.005%	0.019%	0.009%	0.016%	0.011%	0.012%	0.016%				
821	0.001%	0.036%	0.036%	0.002%	0.019%	0.017%	0.006%	0.003%	0.002%	0.001%	0.053%	0.001%	0.030%	0.030%				
825	0.008%	0.007%	0.010%	0.005%	0.005%	0.006%	0.022%	0.007%	0.023%	0.000%	0.003%	0.010%	0.008%	0.013%				
828	0.011%	0.017%	0.019%	0.012%	0.012%	0.018%	0.027%	0.017%	0.029%	0.007%	0.002%	0.017%	0.019%	0.026%				
839	0.011%	0.011%	0.014%	0.006%	0.007%	0.008%	0.021%	0.006%	0.022%	0.011%	0.000%	0.012%	0.008%	0.015%				
855	0.017%	0.016%	0.015%	0.016%	0.013%	0.020%	0.021%	0.013%	0.014%	0.006%	0.002%	0.016%	0.018%	0.024%				
862	0.007%	0.012%	0.013%	0.006%	0.010%	0.014%	0.017%	0.009%	0.018%	0.006%	0.001%	0.010%	0.011%	0.015%				
866	0.010%	0.015%	0.017%	0.008%	0.013%	0.016%	0.020%	0.010%	0.021%	0.000%	0.002%	0.012%	0.016%	0.020%				
868	0.017%	0.021%	0.025%	0.018%	0.026%	0.030%	0.033%	0.018%	0.034%	0.001%	0.001%	0.023%	0.023%	0.032%				
881	0.006%	0.012%	0.013%	0.006%	0.014%	0.017%	0.012%	0.009%	0.007%	0.004%	0.002%	0.013%	0.012%	0.019%				

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Table A-5: Descriptive Statistics for Estimated Pre-Merger Shares - 15 Products

[[BEGIN AT&T AND DIRECTV HIGHLY CONFIDENTIAL INFORMATION]]

[[END AT&T AND DIRECTV HIGHLY CONFIDENTIAL INFORMATION]]

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Table A-6: Descriptive Statistics for Availability and Price Data from Video and Broadband Provider Websites: Standalone Video Products

Provider	Average Price	Min Price	Max Price	Std. Dev. Price	Average Channels	Min Channels	Max Channels	Std. Dev Channels
ACE COMMUNICATIONS GROUP	\$40.15	\$19.95	\$59.95	\$15.05	100	14	158	47
AMERICAN BROADBAND COMMUNICATIONS ET AL.	\$16.11	\$6.95	\$40.05	\$10.23	30	5	132	42
BLUE EARTH VALLEY TELEPHONE COMPANY	\$63.25	\$33.95	\$97.95	\$18.27	100	20	200	52
CABLE ONE, INC.	\$45.50	\$29.00	\$62.00	\$16.51	60	20	100	40
CABLEVISION	\$93.77	\$54.95	\$119.95	\$24.86	378	310	420	45
CHARTER COMMUNICATIONS	\$63.65	\$59.99	\$99.99	\$10.43	133	125	200	21
CINCINNATI BELL INC.	\$46.59	\$29.99	\$87.99	\$21.07	201	140	285	53
COGECO	\$72.52	\$62.49	\$92.48	\$9.88	170	100	240	70
COMCAST	\$69.31	\$0.09	\$199.99	\$31.30	129	10	260	83
COX COMMUNICATIONS, INC.	\$65.35	\$35.49	\$90.74	\$19.79	278	120	430	67
E. RITTER COMMUNICATIONS HOLDINGS, INC.	\$76.60	\$17.95	\$113.95	\$32.05	106	23	176	59
EMPIRE TELEPHONE CORPORATION	\$49.27	\$24.95	\$66.90	\$21.76	80	20	142	61
FIDELITY COMMUNICATIONS	\$64.91	\$47.95	\$71.99	\$5.21	93	45	172	28
GRANDE COMMUNICATIONS	\$63.99	\$54.99	\$72.98	\$9.00	188	150	225	38
HIAWATHA BROADAND COMMUNICATIONS, INC.	\$58.08	\$19.99	\$84.53	\$27.92	68	24	106	34
HICKORY TECH CORPORATION	\$68.15	\$19.95	\$121.95	\$33.45	139	29	205	60
MID-RIVERS TELEPHONE COOPERATIVE, INC.	\$53.13	\$22.20	\$75.00	\$23.04	135	22	194	64
NEMONT TELEPHONE COOPERATIVE, INC.	\$45.50	\$15.00	\$79.00	\$29.50	168	21	317	143
NORTHLAND COMMUNICATIONS CORP.	\$74.99	\$74.99	\$74.99	\$0.00	68	54	72	6
NTELOS, INC.	\$69.00	\$60.00	\$78.00	\$9.04	264	243	299	21
RCN	\$62.80	\$59.99	\$64.99	\$2.49	216	216	216	0
SMITHVILLE HOLDING COMPANY, INC.	\$72.45	\$64.95	\$79.95	\$7.72	184	137	230	48
SUDDENLINK COMMUNICATIONS	\$59.26	\$50.00	\$63.00	\$4.95	200	200	200	0
TIME WARNER CABLE, INC.	\$46.98	\$19.99	\$79.99	\$20.08	118	20	300	84
VERIZON COMMUNICATIONS INC.	\$69.99	\$49.99	\$89.99	\$14.58	265	145	390	91
WAVE DIVISION HOLDINGS, LLC	\$64.95	\$64.95	\$64.95	\$0.00	180	180	180	0
WEHCO VIDEO	\$66.54	\$59.95	\$76.95	\$6.85	175	109	296	66
ZITO MEDIA, LP	\$44.63	\$18.95	\$72.09	\$11.35	45	10	101	21

Notes: This table reflects providers whose data had been collected at the time the Katz analysis was performed.

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Table A-7: Descriptive Statistics for Availability and Price Data from Video and Broadband Provider Websites: Standalone

Broadband Products

Provider	Average Price	Min Price	Max Price	Std. Dev. Price	Average BB Speed	Min BB Speed	Max BB Speed	Std. Dev BB Speed
ACE COMMUNICATIONS GROUP	\$43.82	\$24.95	\$59.95	\$9.47	8	1	15	7
AMERICAN BROADBAND COMMUNICATIONS ET AL.	\$81.76	\$30.00	\$155.00	\$26.19	1	0	4	1
BLUE EARTH VALLEY TELEPHONE COMPANY	\$63.62	\$34.95	\$79.95	\$11.32	12	4	40	7
BRIGHT HOUSE NETWORKS, LLC	\$89.00	\$89.00	\$89.00	\$0.00	30	30	30	0
CABLE ONE, INC.	\$73.73	\$46.25	\$100.00	\$21.97	60	5	70	8
CABLEVISION	\$49.95	\$49.95	\$49.95	\$0.00	15	15	15	0
CHARTER COMMUNICATIONS	\$39.99	\$39.99	\$39.99	\$0.00	33	30	60	10
CINCINNATI BELL INC.	\$40.90	\$19.99	\$84.99	\$16.82	19	2	100	24
COGECO	\$53.48	\$37.99	\$199.99	\$22.73	35	1	120	31
COMCAST	\$48.33	\$19.99	\$114.95	\$27.02	46	3	150	44
COX COMMUNICATIONS, INC.	\$65.60	\$40.49	\$103.49	\$19.31	52	5	150	48
E. RITTER COMMUNICATIONS HOLDINGS, INC.	\$76.23	\$46.95	\$120.95	\$27.63	25	3	50	16
EARTHLINK	\$39.90	\$33.70	\$45.95	\$4.86	10	2	15	5
EMPIRE TELEPHONE CORPORATION	\$29.95	\$29.95	\$29.95	N/A	6	6	6	N/A
FIDELITY COMMUNICATIONS	\$66.49	\$34.95	\$99.99	\$21.35	23	3	50	16
FRONTIER COMMUNICATIONS	\$57.45	\$34.99	\$74.48	\$14.85	10	5	35	7
GRANDE COMMUNICATIONS	\$49.99	\$34.99	\$64.99	\$11.18	63	15	110	35
HIAWATHA BROADAND COMMUNICATIONS, INC.	\$92.50	\$20.00	\$295.00	\$84.43	175	2	1024	325
HICKORY TECH CORPORATION	\$47.35	\$24.95	\$64.90	\$15.15	5	0	20	4
INTEGRA TELECOM HOLDINGS, INC.	\$68.74	\$44.99	\$99.99	\$23.46	15	1	30	11
INTERNET NEBRASKA CORPORATION	\$51.62	\$22.45	\$179.63	\$33.18	4	1	15	4
MEDIACOM COMMUNICATIONS CORP.	\$58.03	\$34.95	\$139.95	\$22.28	48	3	105	33
NORTHLAND COMMUNICATIONS CORP.	\$42.62	\$29.99	\$107.99	\$28.49	7	6	12	2
NTELOS, INC.	\$297.81	\$34.95	\$749.95	\$265.11	98	6	300	104
OTELCO INC.	\$44.45	\$19.95	\$79.95	\$17.75	6	1	20	6
PLANT TELEPHONE COMPANY	\$44.95	\$34.95	\$59.95	\$9.53	4	1	12	5
RCN	\$45.08	\$29.99	\$59.99	\$6.98	58	10	110	33
SMITHVILLE HOLDING COMPANY, INC.	\$64.24	\$39.95	\$94.95	\$20.59	17	1	50	16
SUDDENLINK COMMUNICATIONS	\$49.89	\$35.00	\$127.00	\$24.39	23	1	300	19
TIME WARNER CABLE, INC.	\$40.39	\$14.99	\$79.99	\$16.49	20	2	100	19
VALLEY TELECOM GROUP	\$92.45	\$89.95	\$94.95	\$2.89	10	10	10	0

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Table A-7: Descriptive Statistics for Availability and Price Data from Video and Broadband Provider Websites: Standalone Broadband Products

Provider	Average Price	Min Price	Max Price	Std. Dev. Price	Average BB Speed	Min BB Speed	Max BB Speed	Std. Dev BB Speed
VERIZON COMMUNICATIONS INC.	\$49.36	\$19.99	\$129.99	\$33.89	6	1	15	6
WAVE DIVISION HOLDINGS, LLC	\$64.95	\$39.95	\$89.95	\$18.04	68	5	110	42
WEHCO VIDEO	\$68.70	\$44.95	\$89.95	\$19.21	16	16	16	0
WINDSTREAM CORPORATION	\$49.16	\$4.99	\$56.99	\$6.79	6	3	24	5
ZITO MEDIA, LP	\$52.98	\$25.00	\$105.06	\$18.98	25	3	50	16

Notes: This table reflects providers whose data had been collected at the time the Katz analysis was performed.

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Table A-8: Descriptive Statistics for Availability and Price Data from Video and Broadband Provider Websites: Video-Broadband Bundled Products

Provider	Average Price	Min Price	Max Price	Price	Std. Dev. Price	Average Channels	Min Channels	Max Channels	Std. Dev. Channels	Average BB Speed	Min BB Speed	Max BB Speed	Std. Dev. BB Speed
ACE COMMUNICATIONS GROUP	\$84.60	\$68.90	\$94.90	\$9.52	128	90	158	26	8	8	8	8	0
AMERICAN BROADBAND COMMUNICATIONS ET AL.	\$103.76	\$82.99	\$123.99	\$13.84	120	67	150	35	5	5	2	10	3
BLUE EARTH VALLEY TELEPHONE COMPANY	\$103.43	\$98.95	\$107.95	\$2.16	140	140	140	0	8	8	8	8	0
BRIGHT HOUSE NETWORKS, LLC	\$94.21	\$89.00	\$99.00	\$5.00	156	70	250	90	30	30	30	30	0
CABLE ONE, INC.	\$89.06	\$89.00	\$109.00	\$1.11	100	60	100	2	50	50	5	50	2
CABLEVISION	\$86.20	\$74.95	\$104.95	\$11.39	291	240	370	55	15	15	15	15	0
CHARTER COMMUNICATIONS	\$60.61	\$59.99	\$129.98	\$5.68	125	125	175	5	33	33	30	60	10
COGECO	\$106.66	\$79.99	\$139.99	\$24.96	187	160	225	28	38	38	5	120	30
COX COMMUNICATIONS, INC.	\$94.55	\$59.99	\$123.49	\$18.80	239	10	430	107	18	18	5	25	10
E. RITTER COMMUNICATIONS HOLDINGS, INC.	\$57.95	\$57.95	\$57.95	\$0.00	28	28	28	0	15	15	15	15	0
EMPIRE TELEPHONE CORPORATION	\$81.00	\$81.00	\$81.00	N/A	100	100	100	N/A	6	6	6	6	N/A
FIDELITY COMMUNICATIONS	\$118.80	\$81.99	\$155.99	\$22.82	93	58	172	27	24	24	8	50	16
FRONTIER COMMUNICATIONS	\$77.21	\$54.98	\$134.98	\$18.02	215	190	385	27	10	10	5	25	6
GRANDE COMMUNICATIONS	\$107.99	\$59.99	\$169.99	\$38.69	175	45	275	83	60	60	15	110	31
GREAT PLAINS COMMUNICATIONS, INC.	\$88.99	\$88.99	\$88.99	\$0.00	94	60	95	7	5	5	5	5	0
HIAWATHA BROADBAND COMMUNICATIONS, INC.	\$109.95	\$107.45	\$112.45	\$2.54	90	90	90	0	50	50	50	50	0
HICKORY TECH CORPORATION	\$98.37	\$39.85	\$170.85	\$35.33	139	29	205	60	9	9	1	20	7
INTEGRA TELECOM HOLDINGS, INC.	\$106.89	\$106.89	\$106.89	\$0.00	155	155	155	0	30	30	30	30	0
MEDIACOM COMMUNICATIONS CORP.	\$84.81	\$34.95	\$139.95	\$31.26	80	2	179	38	23	23	3	30	11
NORTHLAND COMMUNICATIONS CORP.	\$92.84	\$79.99	\$107.99	\$14.07	66	31	125	33	9	9	6	12	3
NTELOS, INC.	\$49.95	\$49.95	\$49.95	\$0.00	20	20	21	0	10	10	10	11	0
NTS, INC.	\$79.00	\$79.00	\$79.00	\$0.00	104	104	104	0	17	17	15	20	3
RCN	\$70.62	\$39.99	\$124.99	\$23.52	139	45	216	85	50	50	25	110	27
SUDDENLINK COMMUNICATIONS	\$92.43	\$75.00	\$157.00	\$15.75	200	200	200	0	33	33	15	107	21
TIME WARNER CABLE, INC.	\$92.47	\$64.99	\$129.99	\$21.78	141	20	300	86	19	19	3	30	9
VERIZON COMMUNICATIONS INC.	\$99.16	\$69.99	\$134.99	\$21.87	264	145	390	77	4	4	1	7	2
WAVE DIVISION HOLDINGS, LLC	\$119.90	\$94.90	\$144.90	\$18.04	180	180	180	0	68	68	5	110	42
WINDSTREAM CORPORATION	\$99.24	\$54.98	\$181.97	\$24.23	259	190	320	50	6	6	3	24	5
WOW!	\$73.82	\$60.00	\$92.00	\$12.16	141	60	200	48	7	7	2	15	6
ZITO MEDIA, LP	\$105.43	\$92.69	\$115.36	\$8.59	60	32	97	20	29	29	10	50	17

Notes: This table reflects providers whose data had been collected at the time the Katz analysis was performed.

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Table A-9: Hedonic Price Regression Results

Variable	Variable Description	Video	Broadband	Bundle
sp1chan_1	Linear spline for number of channels, segment covering 0-100	0.315*** (0.002)		0.877*** (0.010)
sp1chan_2	Linear spline for number of channels, segment covering 100-200	0.185*** (0.001)		-0.399*** (0.007)
sp1chan_3	Linear spline for number of channels, segment covering 200-300	0.321*** (0.001)		0.316*** (0.005)
sp1chan_4	Linear spline for number of channels, segment covering 300+	0.177*** (0.001)		0.271*** (0.001)
sp1bbspd_1	Linear spline for broadband speed (mpbs), segment covering 0-10		0.970*** (0.024)	0.298*** (0.036)
sp1bbspd_2	Linear spline for broadband speed (mpbs), segment covering 10-20		0.532*** (0.022)	1.657*** (0.027)
sp1bbspd_3	Linear spline for broadband speed (mpbs), segment covering 20+		0.542*** (0.003)	0.851*** (0.011)
Observations		286,228	177,656	199,008
R-squared		0.662	0.441	0.426

Notes: Standard errors in parentheses.

* indicates that the coefficient is statistically significant at the ten percent level.

** indicates that the coefficient is statistically significant at the five percent level.

*** indicates that the coefficient is statistically significant at the one percent level.

The regression includes dummy variables for premium channels (HBO, Showtime, Starz, Cinemax, Encore, and Movieplex) and fixed effects for DMA[®]-providers, whose coefficients are not shown here. The backup materials submitted with this paper includes regression output showing all coefficient estimates.

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Table A-10: Time Period for each Source of Data used in Demand Estimation

Data Source	Type of Data	Time Period
AT&T	Subscribers and prices	March, 2014
DIRECTV	Subscribers and prices	March, 2014
NTIA	Broadband providers by census block	June, 2013 (most recent time period available)
Dhar Survey	Subscribers	Survey conducted April 21 - May 2, 2014
Nielsen	Number of households in each DMA®	January, 2014
Nielsen	Number of households in each DMA® with DBS, wired, and OTA video service	February, 2014
Third-party provider websites	Availability and price data by zip code	April, 2014 - June, 2014 (time period varies by provider)

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Table A-11: Descriptive Statistics for Variables used in Demand Estimation

Variable Name	Variable Definition	Type	Obs.	Mean	Std.Dev.	Median	Min	Max
diff_logShare	difference of (log) share product j - (log) share of outside good	D	1792	-0.0251	1.976	0.0796	-16.15	7.074
log_share_jA	(log) within nest share	N	1792	-2.394	1.858	-2.085	-17.49	-0.0580
price	average price index from hedonic regressions	N	1792	78.93	29.97	80.55	14.87	172.2
speed	average broadband speed across providers	X	1792	34.96	40.95	25.59	0	498.2
channels	average number of channels across providers	X	1792	260.8	133.2	283.4	0	508.5
Dish	1 if product has DISH video component, 0 otherwise	X	1792	0.214	0.410	0	0	1
DTV	1 if product has DTV video component, 0 otherwise	X	1792	0.214	0.410	0	0	1
realBundle	1 if product is Cable_CableBB or Telco_TelcoBB, 0 otherwise	X	1792	0.143	0.350	0	0	1
CableBB_Comcast	1 if top cable provider is Comcast and product contains cable BB, 0 otherwise	X	1792	0.140	0.347	0	0	1
CableBB_TWC	1 if top cable provider is TWC and product contains cable BB, 0 otherwise	X	1792	0.0977	0.297	0	0	1
TelcoBB_ATT	1 if top Telco BB provider is ATT and product contains Telco BB, 0 otherwise	X	1792	0.184	0.388	0	0	1
TelcoBB_VZN	1 if top Telco BB provider is Verizon and product contains Telco BB, 0 otherwise	X	1792	0.0474	0.213	0	0	1
CableTV_Comcast	1 if top cable provider is Comcast and product contains cable video, 0 otherwise	X	1792	0.0837	0.277	0	0	1
CableTV_TWC	1 if top cable provider is TWC and product contains cable video, 0 otherwise	X	1792	0.0586	0.235	0	0	1
TelcoTV_ATT	1 if top Telco video provider is ATT and product contains Telco video, 0 otherwise	X	1792	0.0938	0.292	0	0	1
TelcoTV_VZN	1 if top Telco video provider is Verizon and product contains Telco video, 0 otherwise	X	1792	0.0251	0.157	0	0	1
DBS_latitude	DBS*latitude (DBS is 1 if product contains DISH or DTV video and 0 otherwise)	X	1792	16.34	19.16	0	0	47.58
cableTV_CableCov	percentage cable video coverage if product contains cable video, 0 otherwise	X	1792	0.182	0.351	0	0	0.997
cableBB_CableCov	percentage cable BB coverage if product contains cable BB, 0 otherwise	X	1792	0.303	0.410	0	0	0.997
telcoBB_TelcoCov	percentage telco BB coverage if product contains telco BB, 0 otherwise	X	1792	0.322	0.433	0	0	0.990
telcoTV_TelcoCov	percentage telco video coverage if product contains telco video, 0 otherwise	X	1792	0.119	0.244	0	0	0.866
avgChannels	average # of channels in each DMA®	I	1792	304.2	19.54	304.5	234.9	352.9
varChannels	variance # of channels in each DMA®	I	1792	7718	3323	7021	1829	18943
maxChannels	max # of channels in each DMA®	I	1792	435.4	39.32	417.8	320	508.5
avgSpeed	average speed in each DMA®	I	1792	48.95	17.19	46.55	16.63	170.0
varSpeed	variance speed in each DMA®	I	1792	1519	4596	732.1	9.203	51697
maxSpeed	max speed in each DMA®	I	1792	88.63	45.75	82.60	34.09	498.2
latitude	average latitude in each DMA®	I	1792	38.12	5.109	38.82	21.12	47.58
Comcast_DMA	1 if top cable provider is Comcast, 0 otherwise	I	1792	0.391	0.488	0	0	1
TWC_DMA	1 if top cable provider is TWC, 0 otherwise	I	1792	0.273	0.446	0	0	1
ATT_DMA	1 if top Telco video provider is ATT, 0 otherwise	I	1792	0.438	0.496	0	0	1
VZN_DMA	1 if top Telco video provider is Verizon, 0 otherwise	I	1792	0.117	0.322	0	0	1
ATT_BB_DMA	1 if top Telco BB provider is ATT, 0 otherwise	I	1792	0.516	0.500	1	0	1
VZN_BB_DMA	1 if top Telco BB provider is Verizon, 0 otherwise	I	1792	0.133	0.339	0	0	1
avgSpeed_has_Video	avgSpeed if product contains video, 0 otherwise	I	1792	41.95	23.38	42.20	0	170.0
avgSpeed_has_BB	avgSpeed if product contains BB, 0 otherwise	I	1792	34.96	26.46	39.12	0	170.0
varSpeed_has_Video	varSpeed if product contains video, 0 otherwise	I	1792	1302	4288	570.7	0	51697

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Table A-11: Descriptive Statistics for Variables used in Demand Estimation

Variable Name	Variable Definition	Type	Obs.	Mean	Std.Dev.	Median	Min	Max
varSpeed_has_BB	varSpeed if product contains BB, 0 otherwise		1792	1085	3944	392.5	0	51697
maxSpeed_has_Video	maxSpeed if product contains video, 0 otherwise		1792	75.97	52.50	82.60	0	498.2
maxSpeed_has_BB	maxSpeed if product contains BB, 0 otherwise		1792	63.31	55.67	70.01	0	498.2
avgChannels_has_Video	avgChannels if product contains video, 0 otherwise		1792	260.8	108.0	298.8	0	352.9
avgChannels_has_BB	avgChannels if product contains BB, 0 otherwise		1792	217.3	138.5	295.5	0	352.9
varChannels_has_Video	varChannels if product contains video, 0 otherwise		1792	6616	4094	6441	0	18943
varChannels_has_BB	varChannels if product contains BB, 0 otherwise		1792	5513	4478	5613	0	18943
maxChannels_has_Video	maxChannels if product contains video, 0 otherwise		1792	373.2	156.7	417.8	0	508.5
maxChannels_has_BB	maxChannels if product contains BB, 0 otherwise		1792	311.0	199.5	417.8	0	508.5
latitude_has_Video	latitude if product contains video, 0 otherwise		1792	32.68	14.16	37.57	0	47.58
latitude_has_BB	latitude if product contains BB, 0 otherwise		1792	27.23	17.76	35.33	0	47.58

Notes: For Type, D=dependent variable; X=exogenous variable; N=endogenous variable; |=instrument

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Table A-12: Correlation Matrix for Variables used in Demand Estimation

	diff_logShare	price	log_share_JA	speed	channels	Dish	DTV	realbundle	CableBB_Comcast	CableBB_TWC	Telcobb_ATT	Telcobb_VZN	CableTV_Comcast	CableTV_TWC	TelcTV_ATT	TelcTV_VZN	DBS_latitude	CableTV_CableCov	CableBB_CableCov	Telcobb_TelcoCov	TelcTV_TelcoCov	avgChannels	varChannels	maxChannels	
diff_logShare	1																								
price	-0.0108	1																							
log_share_JA	0.765	-0.2654	1																						
speed	-0.2084	0.0483	-0.2725	1																					
channels	-0.2727	0.2037	-0.5509	-0.0747	1																				
Dish	0.028	-0.1583	-0.0388	0.0049	0.2324	1																			
DTV	0.106	0.155	0.044	0.0049	0.0773	-0.2727	1																		
realBundle	0.2595	0.0584	0.1663	-0.0227	0.0878	-0.2132	-0.2132	1																	
CableBB_Comcast	-0.1203	-0.0736	-0.1441	0.5271	-0.0697	-0.014	0.0658	0.0658	1																
CableBB_TWC	-0.0593	0.0335	-0.093	0.1274	-0.0375	-0.0115	-0.0115	0.0537	-0.1325	1															
Telcobb_ATT	0.0444	0.2407	0.0607	-0.054	-0.0337	-0.0165	-0.0165	0.0776	-0.1913	-0.1563	1														
Telcobb_VZN	0.1241	0.1961	-0.0005	-0.1044	-0.0387	-0.0078	-0.0078	0.0364	-0.0899	-0.0734	-0.106	1													
CableTV_Comcast	0.1698	0.2976	0.1457	-0.0727	-0.1177	-0.1578	-0.1578	0.1645	0.1691	-0.0994	-0.0084	-0.0084	1												
CableTV_TWC	0.1512	0.2393	0.1261	-0.1007	-0.1145	-0.1303	-0.1303	0.1358	-0.1005	0.1981	0.0102	0.0102	-0.0754	1											
TelcTV_ATT	-0.2194	-0.087	-0.2404	0.0255	-0.1044	-0.0387	-0.0387	0.1751	0.0031	-0.0026	0.1238	-0.0718	-0.0972	-0.0802	1										
TelcTV_VZN	-0.0296	0.0605	-0.1344	-0.0004	-0.0004	-0.0838	-0.0838	0.0874	-0.0029	-0.0047	-0.0763	0.2159	-0.0485	-0.04	-0.0516	1									
DBS_latitude	0.107	-0.0026	0.0067	0.0063	0.2517	0.5938	0.5938	-0.3481	-0.0022	-0.0029	-0.0439	-0.0087	-0.2577	-0.2127	-0.2743	-0.1369	1								
CableTV_CableCov	0.3021	0.4413	0.2434	-0.1766	-0.2148	-0.2705	-0.2705	0.282	-0.0098	-0.0061	-0.0163	0.0024	0.5896	0.4938	-0.1666	-0.0831	-0.4417	1							
CableBB_CableCov	-0.1534	-0.0662	-0.2219	0.7043	-0.1033	-0.0257	-0.0257	0.1205	0.5525	0.4595	-0.3506	-0.1647	-0.1014	-0.0666	-0.0131	0.0045	-0.0436	-0.0209	1						
Telcobb_TelcoCov	0.1155	0.4329	0.0757	-0.1965	-0.1062	-0.0259	-0.0259	0.1214	-0.2992	-0.2445	0.6262	0.3151	-0.0121	-0.1113	-0.0167	-0.0032	-0.0422	-0.0241	-0.5484	1					
TelcTV_TelcoCov	-0.407	-0.046	-0.4802	0.021	0.5794	-0.2554	-0.2554	0.2662	-0.01	-0.0178	-0.0047	0.0415	0.0139	0.0074	0.1806	0.0038	-0.0539	0.0216	0.0308	0.0103	1				
avgChannels	0.0706	-0.0198	0.0265	0.0814	0.1258	0	0	0	0.0185	0.0098	0.1954	-0.0415	0.0139	0.0074	0.1806	0.0038	-0.0539	0.0216	0.0308	0.0103	0.0365	1			
varChannels	-0.0604	-0.0798	0.0459	-0.046	-0.0199	0	0	0	-0.0614	-0.0318	0.1851	-0.2048	-0.0461	-0.0241	0.1687	-0.156	-0.0016	-0.0136	-0.0193	-0.0095	0.0468	-0.1583	1		
maxChannels	-0.0024	-0.0783	0.0574	0.0317	0.0783	0	0	0	-0.0309	0.0199	0.312	-0.2615	-0.0024	0.151	0.2637	-0.177	-0.0438	0.0026	0.0037	-0.0022	0.0591	0.6222	0.5849	1	
avgSpeed	0.0728	0.0052	0.0207	0.2998	0.0342	0	0	0	0.1853	-0.2197	0.0086	0.0026	0.1391	-0.1666	0.034	0.0123	-0.0089	0.0057	0.0081	0.0049	0.00165	0.2716	-0.1533	0.1058	
varSpeed	0.0287	0.003	0.0099	0.2256	-0.0136	0	0	0	0.0126	-0.0841	-0.0762	0.0221	0.0095	-0.0637	-0.0516	0.0236	0.0138	-0.0043	-0.0061	-0.0025	-0.0018	-0.1085	-0.0307	-0.1074	
maxSpeed	0.0648	0.0087	0.0004	0.2646	0.0025	0	0	0	0.1058	-0.1945	-0.105	0.0247	0.0794	-0.1475	-0.0755	0.0296	0.1117	-0.0018	-0.0026	0.0006	-0.0035	-0.0198	-0.211	-0.126	
latitude	-0.0324	0.0039	0.0004	-0.0234	-0.0594	0	0	0	0.008	-0.039	-0.1587	0.0374	0.006	-0.0296	-0.1068	0.024	0.1143	-0.0108	-0.0154	0.0005	-0.0018	-0.4721	-0.0137	-0.3833	
Comcast_DMA	-0.0062	0.0093	0.0097	0.1105	0.0046	0	0	0	0.5029	-0.2634	0.0032	0.0097	0.3775	-0.1997	0.025	0.0031	0.0018	0.0088	0.0126	0.0082	0.0066	0.0368	-0.1221	-0.0615	
TWC_DMA	-0.0126	0.0147	-0.0198	-0.1228	0.0023	0	0	0	-0.247	0.5363	0.0477	0.0104	-0.1854	0.4067	-0.0089	-0.0024	-0.0083	0.0105	0.015	0.0027	-0.0141	0.0183	-0.0593	0.0372	
ATT_DMA	-0.0312	-0.0621	0.0633	0.028	0.0623	0	0	0	0.0345	0.013	0.3936	-0.1968	0.0259	0.0099	0.3647	-0.1415	-0.0334	0.0056	0.008	-0.0022	0.0481	0.4952	0.4626	0.7228	
VZN_DMA	0.1464	0.0837	-0.0201	0.0084	0.0011	0	0	0	0.0035	-0.003	-0.1731	0.5309	0.0026	-0.0023	-0.1172	0.4405	0.0062	0.0212	0.0302	0.0115	-0.0248	0.0087	-0.3541	-0.4018	
ATT_BB_DMA	-0.0496	-0.0682	0.0317	0.0056	0.0534	0	0	0	0.0035	0.0555	0.4605	-0.2302	0.0026	0.0421	0.3117	-0.1656	-0.0394	0.0002	0.0002	-0.0072	0.0251	0.4244	0.4019	0.6775	
VZN_BB_DMA	0.1393	0.0831	-0.04	0.0014	-0.0092	0	0	0	0.0085	0.0097	-0.1859	0.5702	0.0064	0.0074	-0.1259	0.4101	0.0075	0.0191	0.0272	0.0104	-0.0366	-0.0728	-0.3592	-0.4587	
avgSpeed_has_Video	0.0229	0.3467	-0.2515	0.0271	0.6109	0.1562	0.1562	0.1221	0.0608	-0.1686	-0.0518	-0.0252	0.1926	-0.0479	0.1212	0.0571	0.2485	0.1591	-0.0835	-0.086	0.3954	0.1712	-0.0966	0.0667	
varSpeed_has_BB	-0.021	0.3212	-0.1254	0.6462	-0.1766	-0.046	-0.046	0.2158	0.3332	0.0312	0.2567	-0.1197	0.0336	-0.0941	-0.0136	-0.0088	-0.079	0.0432	0.3954	0.396	-0.0359	0.126	-0.0712	0.0491	
varSpeed_has_Video	0.0241	0.0638	-0.0348	0.142	0.0845	0.0264	0.0264	0.0207	0.0027	-0.0787	-0.075	0.0145	0.0254	-0.0557	-0.039	0.0334	0.0579	0.0216	-0.0202	-0.0172	0.0228	-0.0996	-0.0282	-0.0987	
varSpeed_has_BB	0.0065	0.0659	-0.0236	0.3569	-0.0523	-0.0096	-0.0096	0.0449	0.059	0.0617	-0.0365	0.0504	0.0018	-0.0541	-0.046	0.0154	-0.0049	-0.0128	0.0741	0.0789	-0.0104	-0.0903	-0.0256	-0.0894	
maxSpeed_has_Video	0.029	0.2846	-0.2106	0.0556	0.4746	0.126	0.126	0.0985	0.0349	-0.1673	-0.119	-0.0043	0.1421	-0.0683	0.0118	0.0645	0.2159	0.1234	-0.073	0.0713	0.1149	0.0148	-0.1576	-0.0941	
maxSpeed_has_BB	-0.012	0.279	-0.1142	0.6059	-0.1658	-0.0396	-0.0396	0.1858	0.2702	-0.1012	0.1299	0.1218	0.0206	-0.0997	-0.0658	0.004	-0.0583	0.0403	0.3337	0.3386	-0.039	0.0117	-0.1239	-0.074	
avgChannels_has_BB	-0.0265	0.475	-0.3542	-0.1658	0.8111	0.2102	0.2102	0.1643	-0.0621	-0.0515	-0.0482	-0.0419	0.1242	0.1018	0.1621	0.0653	0.3334	0.2124	-0.1143	-0.1181	0.2034	0.1551	-0.0246	0.0965	
avgChannels_has_Video	-0.0533	0.3807	-0.153	0.5477	-0.2148	-0.0547	-0.0547	0.2564	0.2555	0.208	0.3259	0.1343	-0.0303	-0.0254	-0.0167	-0.0164	-0.0943	0.4678	-0.0522	0.4678	-0.0477	0.1008	-0.016	0.0627	
varChannels_has_BB	-0.069	0.2491	-0.2031	-0.1463	0.5114	0.1407	0.1407	0.11	-0.0833	-0.0561	0.069	-0.157	0.044	0.0476	0.2236	-0.0834	0.2284	0.1285	-0.0921	-0.0862	0.1697	-0.1101	0.6957	0.4069	
varChannels_has_Video	-0.0812	0.2385	-0.0901	0.3865	-0.186	-0.0429	-0.0429	0.2011	0.1528	0.1384	0.3714	-0.0421	-0.0476	-0.0324	0.0571	-0.0903	-0.0708	0.0492	0.3492	0.359	-0.017	-0.0839	0.5301	0.3101	
maxChannels_has_Video	-0.0373	0.4347	-0.3397	-0.1683	0.7974	0.2074	0.2074	0.1621	-0.0702	-0.0483	-0.0128	-0.0879	0.1142	0.1029	0.1939	0.0193	0.3276	0.2063	-0.1165	-0.1185	0.209	0.1338	0.1258	0.2151	
maxChannels_has_BB	-0.0611	0.3656	-0.1454	0.5388	-0.2145	-0.0543	-0.0543	0.2546	0.245	0.2091	0.3178	0.0876	-0.0345	-0.0239	0.0012	-0.0399	-0.0944	0.4609	-0.0535	0.4609	-0.0431	0.0876	0.0823	0.1408	
latitude_has_Video	-0.0499	0.4401	-0.3428	0.2009	0.7322	0.2009	0.2009	0.1571	-0.0597	-0.0619	-0.1189	-0.0236	0.1185	0.0853	0.0852	0.0704									

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Table A-13: Regression Results for Demand Estimation

Variable	Variable Description	Coef.	Std. err.
price	average price index from hedonic regressions	-.0251441***	0.0070339
log_share_jA	(log) within nest share	.5526938***	0.0823615
speed	average broadband speed across providers	.0033892***	0.0012671
channels	average number of channels across providers	.0020727***	0.0007413
Dish	1 if product has DISH video component, 0 otherwise	1.777357***	0.3828941
DTV	1 if product has DTV video component, 0 otherwise	2.442955***	0.4405821
realBundle	1 if product is Cable_CableBB or Telco_TelcoBB, 0 otherwise	.5655113***	0.1427488
CableBB_Comcast	1 if top cable provider is Comcast and product contains cable BB, 0 otherwise	-.3611302***	0.1277757
CableBB_TWC	1 if top cable provider is TWC and product contains cable BB, 0 otherwise	0.1281056	0.139689
TelcoBB_ATT	1 if top Telco BB provider is ATT and product contains Telco BB, 0 otherwise	-.1788016*	0.1057208
TelcoBB_VZN	1 if top Telco BB provider is Verizon and product contains Telco BB, 0 otherwise	.898815***	0.1549605
CableTV_Comcast	1 if top cable provider is Comcast and product contains cable video, 0 otherwise	0.1696558	0.1734529
CableTV_TWC	1 if top cable provider is TWC and product contains cable video, 0 otherwise	0.0674863	0.172248
TelcoTV_ATT	1 if top Telco video provider is ATT and product contains Telco video, 0 otherwise	0.1138203	0.1647239
TelcoTV_VZN	1 if top Telco video provider is Verizon and product contains Telco video, 0 otherwise	1.415838***	0.2505892
DBS_latitude	DBS*latitude (DBS is 1 if product contains DISH or DTV video and 0 otherwise)	-.0138329*	0.00833
cableTV_CableCov	cable video coverage if product contains cable video, 0 otherwise	3.042724***	0.5077859
cableBB_CableCov	cable BB coverage if product contains cable BB, 0 otherwise	.6419396***	0.198786
telcoBB_TelcoCov	telco BB coverage if product contains telco BB, 0 otherwise	1.54679***	0.3225901
telcoTV_TelcoCov	telco video coverage if product contains telco video, 0 otherwise	-0.0011508	0.3277199
_cons	constant	.5844752***	0.1320703
F-stat		128.4704	
Observations		1792	
R-squared		0.6561521	

Notes: * indicates that the coefficient is statistically significant at the ten percent level.
 ** indicates that the coefficient is statistically significant at the five percent level.
 *** indicates that the coefficient is statistically significant at the one percent level.

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**Table A-14: Estimated Product Prices, Pre- and Post-Merger, DMAs[®] inside AT&T Video
Footprint (Katz Table 2)**

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**Table A-15: Estimated Product Shares, Pre- and Post-Merger, DMAs® inside AT&T Video
Footprint (Katz Table 2)**

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**Table A-16: Estimated Changes in Prices and Consumer Surplus, DMAs[®] inside AT&T Video
Footprint (Katz Table 2)**

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Table A-17: Estimated Product Prices, Pre- and Post-Merger, DMAs® outside AT&T Video Footprint (Katz Table 3)

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**Table A-18: Estimated Product Shares, Pre- and Post-Merger, DMAs[®] outside AT&T Video
Footprint (Katz Table 3)**

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Table A-19: Estimated Changes in Prices and Consumer Surplus, DMAs[®] outside AT&T Video Footprint (Katz Table 3)

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Table A-20: DMA® Reference

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Table A-20: DMA® Reference

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Other Attachments Redacted in Their Entirety