IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

CAROLINE BEHREND, et al.	:	CIVIL ACTION
	:	
v.	:	
	:	
COMCAST CORPORATION, et al.	:	NO. 03-6604

MEMORANDUM

Padova, J. **January 7, 2010**

I. INTRODUCTION

Presently before the Court in this antitrust suit alleging violations of Sections 1 and 2 of the Sherman Act, 15 U.S.C. §§ 1, 2, is the Plaintiffs' Amended Motion for Class Certification. On May 3, 2007, the Court granted a motion to certify the class. However, following the decision of the United States Court of Appeals for the Third Circuit in In re Hydrogen Peroxide Antitrust Litig., 552 F.3d 305 (3d Cir. 2008) ("Hydrogen Peroxide"), we granted Comcast's motion to reconsider the certification decision and the putative Class ("the Class") filed the pending Amended Motion.

The only certification issue that remains in dispute is the requirement of Fed. R. Civ. P. 23(b)(2) that common issues of law and fact predominate.[1] To support its certification arguments, the Class has propounded the expert reports of Dr. Michael Williams[2] and Dr. Hal Singer.[3] Its

[1]In our May 23, 2007 certification decision, we determined that the Rule 23(a) requirements of numerosity, commonality, typicality, and adequacy had been satisfied by the Class. We also determined that the Class had satisfied the Rule 23(b)(3) requirement of superiority. Comcast does not contest these determinations, which we incorporate by reference.

[2]Dr. Williams is the director of ERS Group, an economic and financial consulting firm specializing in complex business litigation and regulation. He holds a Ph.D. in economics from the University of Chicago and was previously employed as an economist with the Antitrust Division of the Justice Department. (Expert Decl. of Michael Williams, Ph.D. ¶ 1 ("Williams Decl.").)

[3]Dr. Singer is President of Empiris LLC, an economic consulting firm. He holds a Ph.D. in economics from Johns Hopkins University. His economic expertise is antitrust, industrial

damages expert, Dr. James McClave, has also submitted reports to show class-wide damages.[4] Comcast has responded with the expert reports of Dr. Tasneem Chipty[5] and Dr. David J. Teece.[6] The experts' opinions raise substantial issues of fact and credibility that we are required to resolve to decide the pending motion. See Peroxide, 552 F.3d at 316 (stating that the requirements of Rule 23 are not merely "pleading rules" and an "overlap between a class certification requirement and the merits of a claim is no reason to decline to resolve relevant disputes when necessary to determine whether a class certification requirement is met"). Having rigorously analyzed the expert reports, as well as the testimony presented by the parties during a four-day evidentiary hearing, we conclude that the Class has met its burden to demonstrate that the element of antitrust impact is capable of

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organization and regulation. (Class Cert. Decl. of Dr. Hal Singer ¶ 6 ("Singer Class Cert. Decl."). He has worked as an economist for the U.S. Securities and Exchange Commission and the Army Corps of Engineers, as well as for private economic consulting firms, and has taught microeconomics and international trade at the undergraduate level. (Id. ¶ 8.)

[4]Dr. McClave has a Ph.D. in statistics and has taught at the university level for 20 years. He is an expert in the field of econometrics, which is the application of statistical and mathematical methods to economic issues. He is currently the President and CEO of Info Tech, Inc., which provides consulting and software development services associated with antitrust analysis. (Corrected Expert Decl. of Dr. James T. McClave at 1-2 ("McClave Decl.").)

[5]Dr. Chipty is Vice President of CRA International, an economic and business consulting firm. She specializes in economics and industrial organization. She holds a Ph.D. in economics from the Massachusetts Institute of Technology. She has taught at MIT, The Ohio State University, and Brandeis University and served as a consultant to the Department of Justice and the Federal Communications Commission. (Decl. of Dr. Tasneem Chipty in Reply to Plaintiffs' Amended Motion to Certify the Philadelphia Cluster Class at 1 ("Chipty Decl.").)

[6]Dr. Teece holds a Ph.D. in economics from the University of Pennsylvania. He is the Tusher Professor of Global Business and Director of the Institute for Management, Innovation and Organization at the University of California at Berkley. He has also taught at Stanford University and Oxford University. He is also Director and Vice Chairman of LECG, LLC, an expert services firm specializing in the application of economic and financial analysis to legal and policy issues. (Expert Report of David J. Teece, Ph.D. at 6 ("Teece Report").)

proof at trial through evidence that is common to the class rather than individual to its members, and that there is a common methodology available to measure and quantify damages on a class-wide basis.

II. STANDARD OF REVIEW

A. Class Certification

In order to obtain class certification, a party must satisfy the four prerequisites of Rule 23(a) and show that the action can be maintained under at least one of the provisions of Rule 23(b).[7] Amchem Prods., Inc. v. Windsor, 521 U.S. 591, 613-14 (1997). The Class in this case seeks certification under Rule 23(b)(3), which provides that certification is permissible if "the court finds that the questions of law or fact common to class members predominate over any questions affecting only individual members, and that a class action is superior to other available methods for fairly and efficiently adjudicating the controversy." Fed. R. Civ. P. 23(b)(3). The twin requirements of Rule 23(b)(3) are referred to as the predominance and superiority requirements. Comcast concedes that the Class satisfied the Rule 23(a) prerequisites and the Rule 23(b)(3) superiority requirement; the sole remaining issue is whether it satisfies the predominance requirement of Rule 23(b)(3).

Class certification is only appropriate "if the trial court is satisfied, after a rigorous analysis," that each requirement of Rule 23 has been met. Gen Tel. Co. of Sw. v. Falcon, 457 U.S. 147, 161 (1982). "Class certification is an especially serious decision, as it 'is often the defining moment in class actions (for it may sound the "death knell" of the litigation on the part of plaintiffs, or create

[7]Rule 23(a) provides that class certification is permissible only if "(1) the class is so numerous that joinder of all members is impracticable, (2) there are questions of law or fact common to the class, (3) the claims or defenses of the representative parties are typical of the claims or defenses of the class; and (4) the representative parties will fairly and adequately protect the interests of the class." Fed. R. Civ. P. 23(a).

unwarranted pressure to settle nonmeritorious claims on the part of the defendants).'" In re Constar Int'l Inc. Sec. Litig., 585 F.3d 774, 780 (3d Cir. 2009) (quoting Newton v. Merrill Lynch, Pierce, Fenner & Smith, Inc., 259 F.3d 154, 162 (3d Cir. 2001)).

The United States Court of Appeals for the Third Circuit has recently clarified what is meant by "rigorous analysis." Rigorous analysis requires "'a thorough examination of the factual and legal allegations,'" Hydrogen Peroxide, 552 F.3d at 316 (quoting Newton, 259 F.3d at 167), and the resolution of all legal or factual disputes relevant to Rule 23 by a preponderance of the evidence to "make findings that each Rule 23 requirement is met or is not met," id. at 320. In other words, we must find, based on "all relevant evidence and arguments presented by the parties," that "the evidence more likely than not establishes each fact necessary to meet the requirements of Rule 23." Id. The district court's findings, while conclusive with respect to class certification, do not bind the fact-finder on the merits. Id.; see also In re New Motor Vehicles Can. Exp. Antitrust Litig., 522 F.3d 6, 24 (1st Cir. 2008); In re Initial Pub. Offering Sec. Litig., 471 F.3d 24, 41 (2d Cir. 2006) ("In re IPO"); Unger v. Amedisys, Inc., 401 F.3d 316, 323 (5th Cir. 2005).

Although a district court inquires into the merits of the case insofar as "arguments that go to the merits of a plaintiff's cause of action . . . also implicate the class certification decision," Jackson v. Se. Pa. Transp. Auth., 260 F.R.D. 168, 184 (E.D. Pa. 2009), such an inquiry is merely preliminary. Hydrogen Peroxide, 552 F.3d at 317. A plaintiff need not establish by a preponderance of the evidence the merits of its claims at the class certification stage, and any inquiry into the merits that is not necessary to a Rule 23 decision is precluded. Jackson, 260 F.R.D. at 184 (citing Newton, 259 F.3d at 166-67, and Hydrogen Peroxide, 552 F.3d at 317-18). However, the movant must do more than "assur[e] . . . the court that it intends or plans to meet the requirements" of Rule 23. Hydrogen

Peroxide, 552 F.3d at 318; see also Wachtel v. Guardian Life Ins. Co., 453 F.3d 179, 186 (3d Cir. 2006) (holding that there must be "full and clear articulation of the litigation's contours at the time of class certification").

As with other matters relating to Rule 23 requirements, "[e]xpert opinion . . . calls for rigorous analysis." Hydrogen Peroxide, 552 F.3d at 323, 325 ("Rule 23 calls for consideration of all relevant evidence and arguments, including relevant expert testimony of the parties."). A district court must not uncritically accept expert opinion testimony "as establishing a Rule 23 requirement merely because [it] holds the testimony should not be excluded, under Daubert or any reason." Id. at 323. Performing a rigorous analysis may require the district court to weigh conflicting expert testimony at the certification stage and determine whether an expert's opinion is persuasive or unpersuasive. Id. at 323, 324 (noting that "a district court may find it unnecessary to consider certain expert opinion with respect to a certification requirement, but it may not decline to resolve a genuine legal or factual dispute" relevant to class certification); see also In re IPO, 471 F.3d at 42 (disavowing an earlier holding "that an expert's testimony may establish a component of a Rule 23 requirement simply by being not fatally flawed"); Blades v. Monsanto Co., 400 F.3d 562, 575 (8th Cir. 2005). The court must resolve expert disputes to the extent necessary to determine whether a Rule 23 requirement has been satisfied even if the dispute implicates the credibility of one or more experts. Id. at 324.

B. Rule 23(b)(3) Predominance Requirement

Predominance requires that "'[i]ssues common to the class must predominate over individual issues.'" Hydrogen Peroxide, 552 F.3d at 311 (quoting In re Prudential Ins. Co. Am. Sales Practice Litig., 148 F.3d 283, 313-14 (3d Cir. 1998)). The district court must "consider whether plaintiff's

legal claim, if plausible in theory, 'is also susceptible to proof at trial through available evidence common to the class.'" Jackson, 260 F.R.D. at 184 (quoting Hydrogen Peroxide, 552 F.3d at 325). The district court's analysis of predominance "is especially dependent upon the merits of a plaintiff's claim," Constar, 2009 WL 3462032 at *3, since "the nature of the evidence that will suffice to resolve a question determines whether the question is common or individual." Hydrogen Peroxide, 552 F.3d at 311 (quoting Blades, 400 F.3d at 566). Accordingly, "'a district court must formulate some prediction as to how specific issues will play out in order to determine whether common or individual issues predominate in a given case.'" Id. (quoting In re New Motor Vehicles Can. Exp. Antitrust Litig., 522 F.3d 6, 20 (1st Cir. 2008)).

Notwithstanding the Supreme Court's observation that "[p]redominance is a test readily met in certain cases alleging consumer or securities fraud or violations of the antitrust laws," Amchem, 521 U.S. at 625, the district court should not "relax its certification analysis, or presume a requirement for certification is met, merely because a plaintiff's claims fall within one of those substantive categories." Hydrogen Peroxide, 552 F.3d at 322. Therefore, "the court should not suppress 'doubt' as to whether a Rule 23 requirement is met -- no matter the area of substantive law. Id. "'If proof of the essential elements of the cause of action requires individual treatment, then class certification is unsuitable." Id. at 311 (quoting Newton, 259 F.3d at 172).

To prevail on its antitrust claim, the Class must prove the following elements: (1) violation of § 1 of the Sherman Act; (2) individual injury or impact resulting from that violation; and (3) measurable damages. Hydrogen Peroxide, 552 F.3d at 311. At the class certification stage, the Class must establish that common proof will predominate with respect to each of these elements. Weisfeld v. Sun Chem. Corp., 210 F.R.D. 136, 141 (D.N.J. 2002). With respect to antitrust impact, the Court

of Appeals for the Third Circuit has explained:

> Individual injury (also known as antitrust impact) is an element of the cause of action; to prevail on the merits, every class member must prove at least some antitrust impact resulting from the alleged violation. In antitrust cases, impact often is critically important for the purpose of evaluating Rule 23(b)(3)'s predominance requirement because it is an element of the claim that may call for individual, as opposed to common, proof. Plaintiffs' burden at the class certification stage is not to prove the element of antitrust impact, although in order to prevail on the merits each class member must do so. Instead, the task for plaintiffs at class certification is to demonstrate that the element of antitrust impact is capable of proof at trial through evidence that is common to the class rather than individual to its members. Deciding this issue calls for the district court's rigorous assessment of the available evidence and the method or methods by which plaintiffs propose to use the evidence to prove impact at trial.

Hydrogen Peroxide, 552 F.3d at 311-12 (citations omitted).

III. COMMON EVIDENCE OF ANTITRUST IMPACT

The Class asserts that it can establish its antitrust claims through the following common evidence of antitrust impact applicable to all class members:

- Comcast's swaps and transactions in the relevant geographic market,[8] the

[8]The swaps and acquisitions include the following actions taken by Comcast:

- The April 1998 acquisition of Marcus Cable and its 27,000 cable subscribers located in Harrington, Delaware, which is part of the Philadelphia DMA.
- The June 1999 acquisition of Greater Philadelphia Cablevision, Inc., a subsidiary of Greater Media, Inc., and its 79,000 cable subscribers located in Philadelphia.
- The January 2000 acquisition of Lenfest Communications, Inc. and more than 1.1 million cable subscribers located in Berks, Bucks, Chester, Delaware, and Montgomery counties in Pennsylvania, and New Castle County in Delaware.
- The January 2000 acquisition of Lenfest's ownership interests in Garden State Cablevision L.P. and its 212,000 customers located in Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Mercer, and Salem counties in New Jersey, which is part of the Philadelphia DMA.
- The December 2000 swap agreement with AT&T, wherein Comcast obtained cable systems and approximately 770,000 subscribers, including subscribers located in Eastern Pennsylvania (Berks and Bucks counties) and New Jersey. In exchange, AT&T obtained cable systems and approximately 700,000 Comcast subscribers located in Chicago and elsewhere around the country.

Philadelphia designated marketing area ("DMA"), eliminated competition, resulting in increased prices for expanded basic cable subscribers;

- Comcast's clustering of the Philadelphia DMA led to higher expanded basic cable rates throughout the DMA, affecting all class members;
- Comcast's clustering strategy made it profitable for Comcast to deny access to its regional sports programming content, Comcast SportsNet Philadelphia ("CSN Philadelphia"), to DirecTV and EchoStar, its direct broadcast satellite ("DBS") competitors, resulting in decreased DBS penetration in the Philadelphia DMA, which led to increased expanded basic cable prices to all class members;
- Comcast's clustering has impaired the ability of overbuilders (rival wireline providers of multichannel video programming service), such as competitor RCN, to effectively compete in the Philadelphia DMA, resulting in higher rates paid by all class members; and
- widely accepted common methodologies are available to measure and quantify damages on a class-wide basis.

- The January 2001 swap agreement with Adelphia Communications Corp., wherein Comcast obtained cable systems and approximately 464,000 subscribers located primarily in the Philadelphia area and adjacent New Jersey areas. In exchange, Adelphia received Comcast's cable systems and subscribers located in Palm Beach, Florida and Los Angeles, California.
- The April 2001 swap agreement with AT&T, wherein Comcast obtained cable systems and approximately 595,000 subscribers, including subscribers located in Pennsylvania and New Jersey.
- The August 2006 swap agreement with Time Warner in connection with the Adelphia bankruptcy, wherein Comcast obtained cable systems and approximately 41,000 subscribers in the Philadelphia DMA.
- The August 2007 acquisition of Patriot Media and its 81,000 cable subscribers located in New Jersey, within the Philadelphia DMA.

(Mem. in Supp. of Pls' Am. Mot. for Cert. of the Philadelphia Class at 9; Williams Decl. ¶ 108.) Dr. Williams opines that the relevant product market is multichannel video programming services distributed by multichannel video programming distributors ("MVPDs"), including cable companies, local exchange carriers ("LECs")[9], and DBS providers. (Williams Decl. ¶ 22.) He states that the relevant geographic market is the Philadelphia DMA. (Id. ¶ 27.) Dr. Williams attempts to show that Comcast possesses market power in the relevant geographic market and product market by conducting a market structure analysis. He then conducts a market performance analysis to determine the results of Comcast's attaining and maintaining its market power. In his market structure analysis, Dr. Williams examines the effects of the swaps and acquisitions on Comcast's market share, the level of market concentration in the Philadelphia DMA, and barriers to entry. (Id. ¶ 111.) In his market performance analysis, Dr. Williams examines Comcast's alleged ability to charge rates above those that would prevail in the absence of the alleged anticompetitive conduct. (Id. ¶ 126.)

A. The Geographic Market

Dr. Williams states seven bases to support his conclusion that the relevant geographic market is the Philadelphia DMA.

1. Denial of access to CSN Philadelphia is based on the Philadelphia DMA

Dr. Williams' first economic explanation for his geographic market description follows from his analysis of the effect of Comcast's denial of CSN Philadelphia to the DBS providers. Dr. Williams finds that Comcast had an economic incentive to deny CSN Philadelphia to the DBS

[9] LECs are traditional telephone companies such as Verizon, which offers its fiber optic video service in competition with Comcast's expanded basic cable service. They are also referred to by some of the experts as incumbent local exchange carriers or "ILECs".

providers because of the percentage of subscribers it maintained in the Philadelphia DMA. He reasons that if Comcast had a sufficiently small percentage of subscribers in the Philadelphia DMA, it would not be profitable for the company to deny access to the DBS providers because the loss in forgone revenue on sales of CSN Philadelphia to the DBS providers would be greater than the gain in revenue on sales of multichannel video programming service to the incremental number of subscribers who would have switched to DBS had Comcast not denied access to CSN Philadelphia. Dr. Williams finds that Comcast's increase in its percentage of subscribers in the Philadelphia DMA through swaps and acquisitions made it profitable for Comcast to deny DBS providers access to CSN Philadelphia. He also finds that econometric evidence shows that, all else equal, denying access to CSN Philadelphia reduced DBS penetration rates in the Philadelphia DMA, and that, all else equal, reductions in DBS penetration rates led to higher rates for expanded basic cable service throughout the Philadelphia DMA. (Id. ¶¶ 28-29.)

2. Effect of ownership by a large multi-system operator

Dr. Williams' second economic basis for his geographic market definition follows from his analysis of how a cable system's rates change, all else equal, when it is owned by a large multi-system operator ("MSO") or becomes part of a cluster. He states that econometric evidence shows that, all else equal, cable systems affiliated with a large MSO generally have higher rates than other cable systems. Williams contends that a number of the cable systems acquired or swapped by Comcast in the Philadelphia DMA were not affiliated with a large MSO prior to becoming affiliated with Comcast, which was a large MSO. (Id. ¶ 30.) He states that econometric evidence also shows that, all else equal, cable systems owned by an MSO that are located in a geographic "cluster" generally have higher rates than other cable systems. Comcast's swaps and acquisitions in the

Philadelphia DMA created such a cluster. Thus, Comcast's conduct led to rates being increased or maintained above the level that would prevail in the absence of that conduct throughout the Philadelphia DMA. (Id.)

Comcast disputes this portion of Dr. Williams' opinion, arguing that it is not supported by fact. It asserts that large portions of the Philadelphia DMA were already controlled by clustered MSOs before the swaps and acquisitions. The class certification record demonstrates that large portions of the DMA were, in fact, already controlled by MSOs. For example, Comcast acquired substantial cable assets in the DMA through its purchase of Lenfest, itself a large, clustered MSO.[10] (Williams Reply Decl. fig.5.) Acquisitions and swaps from AT&T, Adelphia and Time Warner also brought systems into Comcast ownership that were previously part of large MSOs. See footnote 8, supra. This does not, however, impeach Dr. Williams' assertion that the end result of the swaps and acquisitions created an antitrust impact in the relevant geographic market. The fact that parts of the

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[10]Williams conceded on cross-examination that Lenfest was already a substantial, clustered cable system before it was acquired by Comcast:

Q But even prior to the Adelphia transaction or any of the other deals, Comcast and Lenfest (ph), closed in January of 2000, right?
A That's correct.
Q Comcast was a substantial cable cluster, at that time?
A After the Lenfest acquisition?
Q Before.
A Sure, Comcast had substantial properties in the Philadelphia DMA before the Lenfest transaction.
Q And Lenfest was a substantial cable cluster, at the time, right?
A Lenfest had, yeah, they have approximately a million customers.

. . .

Q So, Lenfest had 1.1 million subscribers that, even just standing alone today, Lenfest would be one of the largest cable clusters today?
A They certainly are a large cable company, yes, sir.

(N.T. 10/15/09 at 37:13-25; 38:16-19.)

DMA were already clustered does not eliminate the possibility that creating an even larger cluster had anticompetitive effects. As Dr. Williams asserts in his market performance analysis, consolidating the Philadelphia cluster from the cable properties previously owned by these MSOs and other smaller cable companies permitted Comcast to charge supra-competitive prices for expanded basic cable service in the geographic market.

3. Overbuilders

The third explanation that Dr. Williams provides for his geographic market definition follows from his analysis of how a cable system's rates change, all else equal, when it faces competition from overbuilders. His economic analysis shows that Comcast's alleged anticompetitive conduct in the Philadelphia DMA reduced the extent of competition provided by overbuilders in the Philadelphia DMA. He states that econometric evidence shows that reductions in overbuilding cause cable rates to increase, all else equal. Thus, Comcast's conduct led to rates being increased or maintained above the level that would prevail in the absence of that conduct throughout the Philadelphia DMA. (Williams Decl. ¶ 31.)

4. Benchmark competition

Dr. Williams' fourth basis follows from an analysis of how "benchmark competition" affects cable rates. Benchmark competition occurs when competition in a market is enhanced by the actions of regulators, firms, and/or customers in comparing the performance of different companies. He opines that both cable regulators and cable customers rely on, and cable companies engage in, benchmark competition. In his opinion, Comcast's swaps and acquisitions in the Philadelphia DMA reduced the degree of benchmark competition. Reductions in benchmark competition, all else equal,

cause cable rates to increase. Thus, Comcast's conduct led to rates being increased or maintained above the level that would prevail in the absence of that conduct throughout the Philadelphia DMA. (Id. ¶ 32.)

5. Industry participants use DMAs

Fifth, Dr. Williams opines that industry participants characterize competition between MVPDs as occurring in DMAs. (Id. ¶ 33.)

6. Clustering

The sixth basis for Dr. Williams' conclusion follows from an economic analysis that demonstrates how swaps and acquisitions by an MSO that cause clustering can reduce overbuilding and lead to higher profits and higher rates. He opines that Comcast's swaps and acquisitions in the Philadelphia DMA created such a cluster. Thus, Comcast's conduct led to rates being increased or maintained above the level that would prevail in the absence of that conduct throughout the Philadelphia DMA. (Id. ¶ 34.)

7. Increased bargaining power

Finally, Dr. Williams bases his geographic market definition on an economic analysis that demonstrates how a cable provider's increasing the number of its cable systems or clustering its cable systems can increase its bargaining power and lead to higher profits and higher rates. He opines that Comcast's swaps and acquisitions in the Philadelphia DMA increased its number of cable systems and created such a cluster. Thus, Comcast's conduct led to rates being increased or maintained above the level that would prevail in the absence of that conduct throughout the Philadelphia DMA. He opines that a hypothetical monopolist of MVPD services in the Philadelphia

DMA would find it profitable to impose a small but significant and nontransitory increase in price ("SSNIP"). (Id. ¶ 35.)

Comcast's expert, Dr. Teece, disagrees with Dr. Williams' opinion that the Philadelphia DMA is the proper geographic market. Dr. Teece notes that the Third Amended Complaint defines the relevant geographic market as the Comcast Philadelphia cluster, not the Philadelphia DMA. (Teece Reply Decl. To Class Cert. ¶ 8 ("Teece Reply Decl.").) He goes further to propose that the relevant geographic market for expanded basic cable service is inherently local and may be as small as individual households because, in the MVPD industry, there is no demand-side substitutability between adjacent geographic areas. This is because consumers are extremely unlikely to move to a different franchise area because of higher cable prices or lower quality service. (Id. ¶ 9.) However, because it is impractical to define a market at the household level, Teece opines that the FCC calculates market share using franchise area.[11] (Id.) He concedes that the DMA level may be appropriate to assess regional sports programming, because interest in regional sports roughly approximates the DMA. However, he asserts, such issues are distinct from the allegations of the Third Amended Complaint. (Id. ¶ 11.)

According to Dr. Teece, six of Dr. Williams' seven economic bases for his market definition

[11]In its decision approving the sale of Adelphia cable assets to Time Warner and Comcast, the FCC stated that "[c]onsistent with our precedent, we find that the relevant geographic unit for the analysis of competition in the retail distribution market is the household." (Ex. D27 ¶ 81.) Since cable companies generally operate in non-overlapping territories and do not compete with each other in the distribution markets they serve, the FCC determined that the transactions before it would not reduce the number of competitive alternatives available to the vast majority of households. Id. The FCC explained, however, that "because it would be administratively impractical and inefficient to analyze a separate relevant geographic market for each individual customer," it aggregated relevant geographic markets in which customers face similar competitive choices." (Id. ¶ 81 n.282.)

are nothing more than a restatement of the conduct that he claims is anticompetitive. (Id. at 16.) He opines that none of these bases provide an adequate explanation for asserting that the Philadelphia DMA is the proper geographic market because (1) there is substantial variation in the MVPD choices available to individual consumers in the Philadelphia DMA including DBS and FiOS; (2) there is substantial variation in MVPD subscriber shares across the DMA; and (3) variations in cable prices across local areas indicates variation in competitive conditions across the DMA. (Id. ¶¶ 19-29.)

We conclude that Dr. Williams' geographic market definition is susceptible to proof at trial through available evidence common to the class. Dr. Teece's focus on the individual household is not supported by the record. Setting the geographic market at a unit that small would be both impractical and inefficient. Thus, in its examination of cable markets, the FCC aggregates relevant geographic markets in which customers face similar competitive choices. The conduct at issue here centers on Comcast's attempt to acquire substantially all of the cable systems in the Philadelphia DMA. Because the record evidence shows that consumers throughout the DMA can face similar competitive choices and suffer the same alleged antitrust impact resulting from Comcast's clustering conduct in the Philadelphia DMA, we find that it can be the appropriate geographic market definition.

B. Market Structure Analysis

In his market structure analysis, Dr. Williams concludes that Comcast's swaps and acquisitions in the Philadelphia DMA eliminated actual or potential competition in the relevant market. Through clustering, achieved via the swaps and acquisitions, Comcast increased its share of the relevant market, leading to higher rates throughout the Philadelphia DMA. Dr. Williams

asserts that Comcast's clustering strategy made it profitable for it to deny DBS providers access to CSN Philadelphia, that the inability of DBS providers to offer CSN Philadelphia reduced their penetration rates in the Philadelphia DMA, and that the reduction in DBS penetration in the Philadelphia DMA caused increases in the rates for expanded basic cable service paid by Comcast's subscribers throughout the Philadelphia DMA. According to Dr. Williams, Comcast's clustering also created an antitrust barrier to the entry of competitors, including overbuilders, and reduced or eliminated benchmark competition, resulting in higher rates paid by Comcast's subscribers throughout the Philadelphia DMA. (Williams Decl. ¶ 108.) Williams suggests that this analysis shows that consumer harm was not limited to only those Comcast subscribers located in franchise areas in which overbuilding was likely to occur but for the alleged anticompetitive conduct. Rather, he asserts that the alleged anticompetitive conduct resulted in higher rates for all Comcast subscribers throughout the Philadelphia DMA, and that Comcast's anticompetitive conduct injured all class members, because the swaps and acquisitions removed competitors, raised entry barriers, and enabled Comcast to acquire, maintain, and exercise monopoly power throughout the Philadelphia DMA. (Id. ¶¶ 109-10.)

Williams opines that, as a result of its swaps and acquisitions, Comcast was able to increase its market share in the Philadelphia DMA from 23.9% in 1998 to a high water mark of 77.8% in the second quarter of 2002, ending at 69.5% in 2007. As a result of Comcast's swaps and acquisitions, its Herfindahl-Hirschman Index ("HHI") increased from a value of 1,833 in 1998 to a range between 6,148 to 6,178 in the second quarter of 2002, ending in the range between 5,069 to 5,263 in 2007.[12]

[12]The HHI is defined as the sum of the squares of the market shares of the firms in the relevant market. In a monopoly, there is only one firm with 100 percent market share, so the HHI

Dr. Williams opines that there exist substantial antitrust barriers to entry into the relevant market because MVPD providers, both wire-based and satellite, incur substantial sunk capital costs in building their networks and must spend significant resources on advertising. He reports that the FCC has determined that entry barriers may include: (1) strategic behavior by an incumbent designed to raise its rival's costs, (2) local and state level regulations which may cause new entrants to incur a delay in gaining access to local public rights-of-way facilities; and (3) technological limitations. (Id. ¶ 118.)

Finally, Dr. Williams concludes that the swaps and acquisitions allocated the geographic market because Comcast competed with cable companies that previously operated in the Philadelphia DMA for both (1) the award of original cable franchises and (2) the purchase of cable systems in the Philadelphia DMA. (Id. ¶ 121.)[13] He opines that the market allocations have diminished competition in the Philadelphia DMA and, because the market allocations were subject to the non-compete agreements, Comcast has the means, from an economic perspective, of enforcing the market allocations by contract, making reentry unlikely. (Id. ¶¶ 120-24.)

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equals 100x100 = 10,000. This is the largest value the HHI can attain. In a market with two equal-sized firms, HHI equals 50x50 + 50x50 = 5,000. If the two firms had shares of 80 percent and 20 percent, the HHI would equal 80x80 + 20x20 = 6,800, which is greater than the HHI with two equal-sized firms. As a general principle, for any given number of firms, the HHI is lowest when the firms are of equal size. In a market with hundreds of small firms, the HHI would be close to zero. (Williams Decl. at 29 n.57.)

[13]Williams cites the following as examples of this competition: (1) AT&T and Comcast were competitors for the assets of Media One before the two competitors agreed to end the bidding process and enter into the agreement that resulted in Comcast acquiring Lenfest; (2) in 1995, Comcast considered Lenfest and Mediacom to be rival bidders for the Marcus' Eastern Shore Systems; and (3) in evaluating Cablevision systems in Ohio, Massachusetts, and Michigan, Comcast stated that bidders may include Charter, MediaOne, Adelphia, RCN, Time Warner, Charter, Insight, and Cox. (Williams Decl. ¶ 121.)

We accept in part and reject in part Dr. Williams' market structure analysis as proof of antitrust impact that can be shown by evidence common to the class. First, we reject his market allocation contention based upon the assertion that the acquired cable companies that previously operated in the Philadelphia DMA competed with Comcast for the award of original cable franchises. Dr. Williams' "elimination of competition in the award of initial franchises" theory is not relevant to a market structure analysis for this Class's claims because almost all of the original franchise bids occurred well before the commencement of the class period on December 1, 1999. (Teece Reply Decl. ¶ 148; Besen Decl. ¶¶ 24-25; N.T. 10/26/09 at 121:3-7.[14]) For example, the franchises in the City of Philadelphia were awarded in 1995. Once the franchises were awarded, which was prior to the class period, there was no further competition for these awards. Accordingly, the theory of class-wide impact based upon elimination of competition in the award of initial franchises is based on events that fall outside the class period.

Second, we reject Williams' contention that the non-compete clauses contained in the acquisition agreements made reentry by the acquired firms into the Philadelphia DMA unlikely because this theory is not fully supported by the record or the case law. While the acquisition agreements contained non-compete clauses, the swap transactions did not. Further, as Comcast points out, the time periods contained in those non-compete agreements were limited and the Class has not shown that a single counter-party ever sought to reenter the DMA after a non-compete agreement expired. More significantly, non-compete agreements executed upon the sale of a

[14]Dr. Teece testified that "these franchises were all given out, at least 98 percent of them were given out before the class period and so there's no fundamental change in any way because of the transactions with respect to original franchise rights." N.T. 10/26/09 at 121:3-7.

business are generally not recognized as antitrust violations. See Eichorn v. AT&T Corp., 248 F.3d 131, 145 (3d Cir. 2001) (stating that, as early as 1899, courts have recognized that covenants not to compete are not violations of § 1 of the Sherman Act; covenants not to compete executed upon the legitimate transfer of ownership of a business are ancillary restraints on trade and, so long as these covenants are reasonable in scope, there is no antitrust violation under the rule of reason).

With those caveats, we conclude that the Class has demonstrated that Dr. Williams' market structure analysis is susceptible to proof at trial through available evidence common to the class.

C. Market Performance Analysis

In his market performance analysis, Dr. Williams concludes that Comcast's rates for expanded basic cable are higher in the Philadelphia DMA than in other, more competitive DMAs, all else equal. (Williams Decl. ¶ 129.) Williams offers four economic explanations for Comcast's ability to charge higher prices. First, he contends that his economic analysis shows that Comcast's clustering activity made it economically feasible for Comcast to withhold regional sports programming from its competitors, which resulted in reduced penetration rates by DBS firms in the Philadelphia DMA and that reductions in DBS penetration rates cause cable rates to increase, all else equal. (Id. ¶ 128.) Second, he opines that Comcast's clustering activity reduced the extent of competition provided by overbuilders in the Philadelphia DMA, and that a reduction in overbuilding and the threat of overbuilding cause cable rates to increase, all else equal. (Id. ¶ 131.) Third, he asserts that Comcast's clustering activity reduced "benchmark" competition, on which cable customers rely to compare the prices charged by competitors in a market. (Id. ¶¶ 144-62.) Fourth, he asserts that clustering increased Comcast's bargaining power in its negotiations with its content

providers such as cable networks, which allowed Comcast to negotiate lower prices for its content and allowed it to increase cable subscriber rates. (Id. App'x at 2.)

1. Clustering and its effects on the ability of DBS competitors to access regional sports programming

Dr. Williams relies on Dr. Singer's report as a basis for his conclusion that Comcast had an economic incentive to deny CSN Philadelphia to DBS providers because of its percentage of subscribers in the Philadelphia DMA. In his April 10, 2009 report, Dr. Singer opines that "Comcast's unilateral exclusionary conduct with respect to three localized inputs" in the production of MVPD services constituted anticompetitive conduct. (Singer Decl. ¶ 13.) One of the three localized inputs he identifies is Comcast's alleged imposed exclusivity with regard to CSN Philadelphia's programming of local sports.[15]

Dr. Singer's report identifies regional sports programming as a relevant upstream product market, or an "input market." (Id. ¶ 32.) He defines this upstream market as the right to carry televised professional regional sports events such as the Philadelphia 76ers, Flyers and Phillies games. (Id. ¶ 29.) This content, he opines, is impossible to duplicate because there is only one professional franchise for each sport; fans generally follow their local team; and regional sports programming is not interchangeable with national sports programming, such as the NCAA basketball tournament, sports programming from another region, or non-sports programming. (Id.)

According to Dr. Singer, using its control of upstream inputs, "which Comcast secured by

[15]The other two concern Comcast's conduct denying overbuilders access to construction contractors and interfering with their efforts to obtain local permits. We discuss these inputs in our discussion, infra, of overbuilder competition.

virtue of its clustering strategy," Comcast denies downstream rivals, principally the two DBS operators, access to Comcast's affiliated sports programming in the Philadelphia DMA and other markets. (Id. ¶ 64.) This forecloses DBS competitors from regional sports programming, and causes DBS providers to experience significantly lower than expected penetration rates in the Philadelphia DMA.[16] (Id. ¶ 66.) According to Dr. Singer, this demonstrates clear anticompetitive motivation to stifle competition in the downstream market by using market power in the upstream market. (Id. ¶ 68.) He points to evidence that Comcast does not seek to maximize profit in the upstream regional sports network market, but rather restricts output to gain market power vis-a-vis DBS competitors. (Id. ¶ 68.)

Dr. Williams believes that if Comcast had a sufficiently small percentage of subscribers in the Philadelphia DMA, it would not be profitable for the company to deny access to DBS providers because (1) the forgone revenue on sales of CSN Philadelphia to DBS providers would be greater than (2) the gain in revenue on sales of multichannel video programming service to the incremental number of subscribers who would have switched to DBS had Comcast not denied access to CSN Philadelphia. Dr. Williams finds that Comcast's clustering of the Philadelphia DMA made it profitable for Comcast to deny DBS providers access to CSN Philadelphia. (Williams Decl. ¶¶ 28-29.) The resulting reductions in DBS penetration rates in the DMA caused cable rates to increase, all else equal.

Several reports generated by the Federal Communications Commission ("FCC") and the

[16]According to Dr. Singer, the actual DBS penetration rate for Philadelphia as of March 2005 was 10.35%, while the predicted DBS penetration rate was 20.89%. (Singer Decl. ¶ 80 tbl.4.) However, as we discuss below, Dr. Teece shows that the actual DBS penetration rate was 19.2% by the first quarter of 2008. (Teece Report ¶ 48 ex. 4.)

General Accounting Office ("GAO"), as well as academic studies, speak to the issue of whether DBS competition constrains cable prices; however, their results are not uniform. In its January 16, 2009 "Report on Cable Industry Prices," the FCC determined that, while "cable prices decrease substantially when a second wireline cable operator [an overbuilder] enters the market," it does not appear "that DBS effectively constrains cable prices." (Ex. D2 ¶ 3.[17]) The GAO, however, reached a different result in 2003, finding:

> DBS competition is associated with a slight reduction in cable rates as well as improved quality and service. In terms of rates, we found that a 10 percent higher DBS penetration rate in a franchise area is associated with a slight rate reduction – about 15 cents per month. Also, in areas where both primary DBS operators provide local broadcast stations, we found that the cable operators offer subscribers approximately 5 percent more cable networks than cable operators in areas where this is not the case. These results indicate that cable operators are responding to DBS competition and the provision of local broadcast stations by lowering rates slightly and improving their quality. During our interviews with cable operators, most operators told us that they responded to DBS competition through one or more of the following strategies: focusing on customer service, providing bundles of services to subscribers, and lowering prices and providing discounts.

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[17]The data presented to support this assertion are comparisons in a bar graph of average prices for basic cable service in areas with no competition, areas of DBS competition, areas of wireless MVPD competition, areas of low cable penetration, and areas of competition from an overbuilder. While there was little difference between average cable prices in areas of no competition and areas of DBS competition, the study does find lower average cable prices in areas of overbuilder competition. (Ex. D2 at 5.) Dr. Williams criticized this result because the bar graph contains only raw data and does not represent a regression analysis:

> Q Can I ask – can I interrupt you for a second? Are those bar charts that are found on Page 5, are those a good starting point rather than an ending point?
>
> A I would say, yeah, sure, they're a good starting point. I think any – in any statistical analysis you want to look at the raw data and that's what this is, it's the raw data. But when you actually want to draw a scientifically based inference you don't just look at raw tables like this, you conduct a regression analysis.

(N.T. 10/15/09 at 144:3-11.)

(GAO "Issues Related to Competition and Subscriber Rates in the Cable Television Industry," (Oct. 2003) at 11.)

Other GAO reports, issued both before and after the 2003 report, while not making the same claim about DBS competition constraining cable prices, shed further light on the ability of DBS providers to compete with wireline cable companies, the crux of Dr. Singer's theories. In its October 2002 report entitled "Issues in Providing Cable and Satellite Television Services," the GAO concluded that the ability of the DBS companies to provide local broadcast channels was "associated with significantly higher DBS penetration rates." (Ex. D13 at 44; N.T. 10/26/09 at 29:17-30:17.) It found the DBS penetration rate was 32% higher in areas where local channels were available, suggesting "that in areas where local channels are available from both DBS providers, consumers are more likely to subscribe to DBS service, and therefore DBS appears to be more able to compete effectively for subscribers than in areas where local channels are not available from both DBS providers."[18] (Id.) The GAO did not find, however, that DBS companies' provision of local broadcast channels was associated with lower cable prices and, thus, could not reject the hypothesis that provision of local channels has no impact on cable prices.[19] (Id. at 45.) In the GAO's next follow up report published in April 2005, it again focused on the availability of local channels,

[18]The GAO also found that DBS penetration rates were higher in areas that require a relatively higher angle or elevation at which the satellite dish is mounted and is lower in areas where there are more multiple-dwelling units, which are associated with the need of DBS satellites dishes to "see" the satellite. (Ex. D13 at 45.)

[19]However, in the same report, the GAO did find that cable prices were approximately 17% lower in areas where there was overbuilder competition and that higher cable prices are also associated with higher cable channel choice and with whether a cable company is affiliated with one of the ten largest MSOs. (Id. at 45.) We discuss the impact of overbuilder competition on cable prices infra.

determining that it made DBS penetration rates significantly higher. (Ex. D3 at 32.) This report also found that DBS penetration rates are likely to be significantly higher in non-metropolitan areas, a factor the GAO associated with the historical development of satellite service, which had been marketed for many years in smaller and more rural areas. (Id.) As in its 2002 report, in 2005 the GAO found no correlation between DBS companies having access to local stations and lower cable prices. (Id. at 33.)

By analogy, these reports lend some support to Dr. Singer's theory that the foreclosure of DBS competitors to access to regional sports programming caused DBS providers to experience significantly lower than expected penetration rates in the Philadelphia DMA. Regional sports programming, like local broadcast channels, appeals to local audiences. While the reports do not study the effect of DBS foreclosure of access to regional sports programming (or the effect of clustering), if the ability of the DBS companies to provide local broadcast channels is associated with significantly higher DBS penetration rates, it seems appropriate to theorize that the ability to provide local sports coverage would have similar effects.

Surprisingly, this result is supported by Comcast's expert Dr. Teece. In his initial expert report – issued before Comcast had the benefit of examining the Class's DBS foreclosure theory – Dr. Teece reported that

> There have been several economic studies of competition between MVPDs that serve customers in the same geographic area. Many of these studies have concluded that there is significant competition between incumbent cable firms, DBS providers, and ILECs. Some studies have estimated empirically the competitive constraint that DBS imposes on cable system pricing. For example, [the October 2003] GAO study concluded that DBS competition has restricted cable prices. The study found that "as more households subscribe to DBS service, cable operators will ultimately respond by reducing rates." In another study, FCC economists Andrew

> Wise and Kiran Duwadi performed an econometric study of cable system pricing and found that "DBS providers are a constraining factor on quality-adjusted price increases for basic cable services by cable firms." Similarly, an empirical study by Austan Goolsbee and Amil Petrin indicates that "more competition from DBS is correlated with lower cable prices."
>
> Studies have also found evidence of non-price competition between cable and DBS, wireline overbuilders, and ILECs. A GAO study in 2000 found that cable companies responded to competition from DBS by increasing the number of channels offered. Another GAO study found that in areas where both DBS competitors offered local-into-local via satellite the cable provider offered 5 percent more channels. This same study reported that in response to DBS competition, cable operators increased their focus on customer service and provided packages of services for customers. As noted above in Section II.B, Goolsbee and Petrin estimated an annual consumer surplus of $1 billion resulting from quality improvements by cable operators in response to DBS entry.

(Teece Expert Report ¶¶ 68-69.)

The proposition that DBS competition constrains cable prices is supported by the academic articles mentioned by Dr. Teece. Wise and Duwadi conclude that "DBS providers are a constraining factor on quality-adjusted price increases for basic cable services by cable firms." Andrew Stewart Wise and Kiran Duwadi, "Competition Between Cable Television and Direct Broadcast Satellite: The Importance of Switching Costs and Regional Sports Networks," J. Competition L. & E. 694, 701 (2005). Goolsbee and Petrin conclude that the data they examined "suggest that more competition from DBS is correlated with lower cable prices and somewhat higher quality cable." Austan Goolsbee and Amil Petrin, "The Consumer Gains from Direct Broadcast Satellites and the Competition with Cable TV," 72 Econometrica 351, 377 (2004).

Notwithstanding the evidence supporting the theory that DBS competition can constrain cable prices, we conclude that the Class has not demonstrated that Dr. Williams' and Dr. Singer's resulting opinion tying Comcast's clustering activity in the Philadelphia DMA to reduced DBS

penetration rates is susceptible to proof at trial through available evidence common to the class. First, the decision not to license CSN Philadelphia to DBS providers occurred before the class period. Comcast established that it never licensed CSN Philadelphia to DBS companies, either before it established its cluster, during the formation of the cluster, or after clustering had been achieved. At all times since its debut on October 1, 1997, Comcast has distributed CSN Philadelphia programming via a terrestrial delivery network and has never distributed it via a satellite distribution system. See DirecTV, Inc. v. Comcast Corp., 13 F.C.C. 21,822, 21,826 (1998); EchoStar Commc'n Corp. v. Comcast, Corp., 14 F.C.C. 2089, 2093 (1999). Comcast's DBS competitors, DirecTV and EchoStar, sought to negotiate licenses to carry SportsNet between July and December 1997. See id. The decision not to license CSN Philadelphia to DirecTV occurred on September 8, 1997. DirecTV, 13 FCC Rcd at 21826-27. The decision not to license CSN Philadelphia to EchoStar occurred on January 7, 1998. EchoStar, 14 F.C.C. at 2093. Both decisions occurred prior to the class period and before Comcast began clustering cable systems in the Philadelphia region.

Second, the class certification record shows that Comcast's decision to deny access to regional sports programming to DBS competitors was based upon two factors unrelated to clustering. The first factor is that the FCC had specifically permitted Comcast to refuse to supply its DBS competitors with CSN Philadelphia pursuant to the terrestrial exception contained in the Program Access Rules of Section 628 of the Communications Act of 1934, 47 U.S.C. § 548(b).[20] The FCC

[20]We recognize that, in making its decision interpreting the Program Access Rules, the FCC was not engaged in an antitrust analysis of Comcast's decision not to license CSN Philadelphia to the DBS providers and that its regulatory approval does not displace the antitrust laws. See United States v. Radio Corp. of Am., 358 U.S. 334, 346 (1959) (holding that the FCC was not given the power to decide antitrust issues and that its actions do not prevent enforcement of the antitrust laws in federal courts). Thus, the FCC's determination does not in any way control our antitrust analysis.

determined that Comcast's decision to distribute CSN Philadelphia terrestrially was based upon valid business considerations, namely that the cost of terrestrial delivery was significantly less expensive. See DirecTV, Inc. v. Comcast Corp., 15 F.C.C. 22,802, 22,808 (2000); DirecTV, 13 F.C.C. at 21,836; EchoStar, 14 F.C.C. at 2101. The second factor involved Comcast's own competitive disadvantage. Comcast declined to license CSN Philadelphia to its DBS competitors to counter its perceived competitive disadvantage arising from DirecTV's refusal to license NFL Sunday Ticket and other satellite-exclusive content, and attempted to maintain competitive balance by presenting CSN Philadelphia as a cable-only exclusive offering in the Philadelphia DMA. (Chipty Reply Decl. ¶ 19; Teece Decl. ¶ 63 (stating that unique content allows service providers to differentiate their offerings and to provide a more valuable service to consumers, thereby allowing them to compete more effectively for customers).)

Dr. Singer's opinion fails to recognize that Comcast has maintained its policy of distributing CSN Philadelphia only to wireline providers of video services since launching CSN Philadelphia in 1997, well before formation of the Philadelphia cluster. (Chipty Reply Decl. ¶¶ 16-17.) Dr. Singer also fails to recognize that Comcast **does** license CSN Philadelphia – as the Program Access Rules mandate – to other wireline MSOs, including RCN and Verizon, its primary non-satellite competitors in the Philadelphia DMA. Comcast never sought to maintain absolute exclusivity over regional sports programming and has always permitted its non-satellite competitors to license CSN

We cite the FCC's decision only to show that Comcast organized its business relations knowing that it was not required under the Program Access Rules to provide CSN Philadelphia to satellite competitors.

Philadelphia under the Program Access Rules before, during, and once it achieved its cluster. (Teece Reply Decl. ¶¶ 34-36.) Because the DBS providers had no access to CSN Philadelphia before the cluster was formed, while subscribers of the MSOs that Comcast acquired in the swaps and transactions to create the cluster already had access to CSN Philadelphia, the Class has not demonstrated that Dr. Singer's and Dr. Williams' opinions tying Comcast's clustering activity in the Philadelphia DMA to reduced DBS penetration rates are susceptible to proof at trial through available evidence common to the class.

Finally, our conclusion that, on this record, the antitrust impact theory of clustering based on DBS foreclosure is not susceptible to proof at trial through available evidence common to the class is also supported by the data on DBS penetration rates in Philadelphia. Dr. Singer reports that the actual DBS penetration rate for Philadelphia as of March 2005 (the approximate midpoint of the class period) was 10.35%, while the predicted DBS penetration rate was 20.89%. (Singer Report ¶ 80 tbl. 4.) He bases his clustering/DBS foreclosure opinion on this discrepancy. However, Dr. Teece shows that, by the first quarter of 2008, the actual DBS penetration rate was 19.2% , quite close to the predicted rate cited by Dr. Singer. (Teece Reply Decl. ¶ 48 ex. 4.) Dr. Teece's data also show that DBS penetration has experienced higher than average growth during the class period, increasing more rapidly in the Philadelphia DMA (327%) than in the nation as a whole (155%) **after** Comcast's clustering activity had already occurred.[21] (Teece Reply Decl. ¶ 49.) Dr. Teece concludes

[21]The FCC reports that, nationwide, cable operators' share of all MVPD subscribers has also declined relative to the share attained by DBS providers. As of June 30, 2006, cable operators served 68.2% of MVPD subscribers, compared to 69.4% one year earlier. DBS providers saw their share of MVPD subscribers grow during the same period from 27.7% to 29.2%. (Thirteenth Annual Report, Ex. D37 ¶ 169.)

from this data that the "ability of DBS providers to compete successfully with Philadelphia SportsNet suggests that Philadelphia SportsNet may not be essential for DBS providers to compete effectively. It also indicates that Comcast's decision not to license Philadelphia SportsNet to DBS providers did not anticompetitively foreclose DBS providers from competing effectively in the Philadelphia DMA." (Id. ¶ 50).

2. Clustering and its antitrust impact on overbuilder competition

According to Dr. Williams, Comcast's clustering strategy, achieved by acquiring competing cable operators, changed the Philadelphia DMA from one previously not owned by a large MSO, to one that was dominated by a large MSO. He theorizes that

> Econometric studies show that, all else equal, ownership of a cable system by a large MSO (typically defined as one of the ten largest MSOs) generally results in higher rates of approximately 5% to 10%. . . . Excluding swaps, a number of Comcast's acquisitions in the Philadelphia DMA had the effect of changing the ownership of the acquired cable systems from (1) not being owned by a large MSO to (2) being owned by a large MSO. Empirically, since large MSOs are generally clustered, the MSO variable picks up clustering effects.

(Williams Decl. ¶ 52.) He goes on to discuss the clustering effects resulting from the switch to domination by a large MSO as part of his discussion of the relevant geographic market:

> Based on the empirical literature regarding the MSO and clustering effects, Comcast's swaps and acquisitions have caused subscribers to pay higher rates of approximately 7.5% to 14%. These results provide empirical support for the conclusion reached in both the overbuilding and clustering models . . . that clusters lead to higher cable rates. These rate increases are more than a SSNIP [a small but significant and nontransitory increase in price] (generally evaluated with a 5% price increase), despite the fact that Comcast is not the only provider of multichannel video programming service in the Philadelphia DMA, and consequently has less (or at least no more) market power than would a hypothetical monopolist of multichannel video programming service in the Philadelphia DMA to which the SSNIP test applies. Therefore, relative to the rates that would be paid by Comcast's subscribers in the Philadelphia DMA but for the swaps and acquisitions, a hypothetical monopolist of

> multichannel video programming service in the Philadelphia DMA would profitably impose a SSNIP. The relevant geographic market for analyzing Comcast's alleged anticompetitive conduct is, therefore, the Philadelphia DMA.

(Id. ¶ 54.) He concludes that an MSO

> can increase its profits by clustering its cable systems so that they share their boundaries with one another and share as little total boundary as possible with other cable providers serving adjacent areas. Such contiguous clustering is profit-enhancing for an MSO because it reduces the likelihood or amount of overbuilding into its franchise areas.
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> . . .
>
> Clustering also deters overbuilding by enhancing the clustering incumbent's ability to increase the cost and reduce the benefits of overbuilding. Savings from consolidation of plant and equipment and from operating efficiencies flow to the clustering incumbent. Clustering additionally allows the incumbent to charge higher advertising fees. These benefits to clustering increase the incumbent's incentives as well as its financial capacity to expend resources on strategies to block sustainable overbuilding.

(Id. ¶¶ 88, 90.) To reduce the incentive for competitors to overbuild, Williams finds it is optimal for an MSO to arrange its cable systems to minimize boundaries, and the optimal way to accomplish this is to "cluster," i.e. acquire contiguous cable systems. (Id. ¶ 92.)

He goes on to opine that there are several consequences arising from the resulting reduction in overbuilding within the MSO's franchise areas:

- the MSO's total profits are typically higher when there is less overbuilding;
- the monthly rate for cable services paid by a household will typically be higher when (1) an overbuilder does not pass by the household as compared to when (2) an overbuilder does pass by the household due to the reduction in head-to-head competition faced by the MSO;
- the absence of overbuilding within a franchise area can lead to higher rates even for

households in that franchise area that would not have been passed by the overbuilder; and

- the incumbent cable system will optimally reduce the rate it charges subscribers without access to an overbuilder (though by less than it reduces the rates to customers in homes passed by the overbuilder) because the marginal cost of providing service to them is lower than that of the overbuilt households. Accordingly, even partial overbuilding in a franchise area can lead to lower rates throughout the franchise area.

(Id. ¶¶ 93-94.)

Dr. Williams supports his opinions by presenting two economic models of overbuilding. (Williams Decl. App'x II at 107-25; Williams Cl. Reply Decl. App'x I at 13-18.) His first model attempts to analyze the effect of clustering on the impact of overbuilding on profits and prices by comparing situations where incumbent cable franchise areas are interspersed and where they are contiguous. (Williams Decl. ¶ 168.) He asserts that economic evidence supports the assumption that, where franchises areas are interspersed, an incumbent monopolist cable company can drop its rate in areas where it experiences overbuilder competition from an operator in a neighboring franchise, but charge a different price in non-overbuilt areas. (Id. ¶ 181.) He supports his conclusion with evidence that Comcast has instituted a discount called the Comcast Advantage Plan to offer discounts or rate freezes to consumers who agreed not to switch their service to RCN. (Id.) Dr. Williams also theorizes that prices paid by consumers in areas that remain monopolized also fall; this price reduction occurs because the portion of the incumbent cable firm's franchise area that it monopolizes is now shorter in length and so the marginal cost of servicing that portion has fallen,

leading to a reduction in the monopoly price. (Id. ¶ 182.) He opines that the lowest price is achieved with complete overbuilding, i.e., where the entirety of the incumbent cable firm's region is served by both the incumbent firm and an overbuilder. (Id. ¶ 184.) He concludes that it is economically optimal for an overbuilder to overbuild into the incumbent operator's regions because, for small amounts of overbuilding, the incumbent's profits will strictly decrease, the overbuilder's profits will strictly increase, and the prices paid by households will strictly fall, both in the overbuilt region and in the region that remains monopolized. (Id. ¶ 185.)

Because it is easier for an overbuilder to affect the monopolist's price where the monopolist's franchise areas are interspersed, Dr. Williams asserts that the incumbent cable firm will enjoy substantial benefits from clustering its franchise areas through purchases or swaps so that they are contiguous. Where franchise areas are contiguous, Dr. Williams asserts that the incumbent cable firm's decrease in profits is roughly four times lower than where the franchise areas are interspersed. Clustering, he asserts, reduces competition that would otherwise result from optimal overbuilding and, as a consequence, leads to higher profits and higher prices not only in areas where competition is precluded, but also in areas where the incumbent cable firm would have remained a monopolist. This occurs because, given nearby overbuilding, the marginal cost of servicing the non-overbuilt areas falls and the incumbent cable firm is able to price discriminate between the non-overbuilt and overbuilt areas. (Id. ¶ 188.)

In response to Dr. Teece's criticisms of Dr. Williams' first model, which concerns itself only with overbuilding by an incumbent adjacent cable operator,[22] Dr. Williams created a second model

[22]Dr. Teece faulted Dr. Williams' premise that adjacent cable operators would overbuild into another's territory, because it has never in fact happened and the Class offered no proof that it ever

more specifically addressing the experience of overbuilding revealed by the record in this case. In his second model, Dr. Williams provides an economic theory of overbuilding that applies to an overbuilder, such as RCN, whose existing facilities overlay a franchise area served by an incumbent operator, examining the two alternative scenarios of where franchise areas are interspersed and where they are clustered. Williams assumes that an existing cable operator that wishes to overbuild into a neighboring franchise area will build out from its boundary to minimize the cost of building into and servicing the new area. Because an overbuilder entrant has no existing infrastructure, unlike a neighboring MSO that decides to overbuild a neighboring franchise area, it will optimally choose a location from which to begin overbuilding, and it will build outward, in a contiguous fashion, from that point.[23] This "buildout" effect, Williams asserts, gives an incumbent cable operator the incentive to cluster. (Williams Cl. Reply Decl. App'x I at 13.)

Williams' model assumes an operator who is a monopolist within each of two geographically separated franchise areas within a single DMA, that these areas are identical, and that the monopolist's profits in each area are equal. Because the two areas are geographically separated, an overbuilder that begins in one area will not reach the other area for some time, if at all, by the

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happened. He adds that cable overbuilding by a dedicated overbuilder is also rare. Dr. Teece cites data on cable overbuilding in Pennsylvania, New Jersey and Delaware suggesting that when overbuilding does occur, it occurs at similar rates in unclustered cable systems as in large cable clusters during the relevant period. (Teece Reply Decl. ¶¶ 142-45.) He asserts that the data are inconsistent with a theory that clustering deters overbuilding because the data on actual overbuilding does not support the existence of a negative relationship between clustering and overbuilding. (Id. ¶ 147.)

[23]The GAO has recognized that cable overbuilders tend to enter markets that are geographically close in proximity to its other key facilities, such as its headquarters, existing network, or other needed infrastructure. (Ex. D29 at 5.)

buildout effect. For simplicity, Williams assumes that the overbuilder would not reach the second area at all. Consequently, the monopolist would be willing to pay up to the difference between its monopoly profit and its competitive profit to keep the overbuilder out of the franchise area it is threatening to enter, where its competitive profit is the (lower) profit the monopolist would earn if the overbuilder successfully entered and they competed with the aim to maximize profits.

If, on the other hand, the monopolist's two franchise areas are contiguous, i.e., clustered, Dr. Williams theorizes that the monopolist would be willing to pay up to twice the difference between its monopoly profit and its competitive profit to keep the overbuilder entrant out. This is because a successful entrant that builds outward may well overbuild the incumbent's two contiguous franchise areas, reducing profits from monopoly profit in each area to competitive profit in each area. Because its monopoly profit will be threatened in more areas, Williams theorizes that the amount the monopolist will expend to fight the entry of an overbuilder will always be higher where its franchise areas are clustered than where its franchises are interspersed. (Id. App'x I at 16.) From these assumptions, Dr. Williams asserts that his model demonstrates that

> the monopolist may strictly prefer to cluster its franchise areas. When this occurs, there are several effects. First, clustering its franchise areas reduces the likelihood that an entrant attempts to enter. Second, given that an entrant does attempt to enter, clustering its franchise areas reduces the likelihood that the entrant's attempt is successful. Third, clustering its franchise areas increases the monopolist's expected profits without any increase in efficiency. Fourth, under the assumption that successful entry reduces prices, clustering its franchise areas increases the price the monopolist charges its customers on average.

(Id. App'x I at 18.)

Dr. Williams also cites to reports issued by the FCC and the GAO to support his opinion that clustering creates antitrust impact by discouraging overbuilding. The 1992 Cable Act requires the

FCC to issue annual reports that compare rates charged by cable systems facing effective competition with those not facing effective competition. In its annual reports on cable industry rates, the FCC has performed a number of regression analyses on cable rates, using data from 1995 to 2008. Williams asserts that this econometric research provides support for Dr. McClave's damages analysis and his own theories of antitrust impact and market definitions.[24] (Williams Decl. ¶ 133.) He contends that this research also explains in part how Comcast's conduct in this case resulted in cable subscribers in the Philadelphia DMA paying higher rates. Dr. Williams summarizes the reports as follows:

- The FCC reports find that, all else equal, a cable system facing competition from an overbuilder has rates that are generally 5% to 15% lower than rates for cable systems that do not face competition from an overbuilder. This supports the conclusion that Comcast's actions, which reduced the extent of competition provided by overbuilders in the Philadelphia DMA, caused cable rates to increase, all else equal.[25]
- The FCC reports find that, all else equal, a 10% increase in an MSO's total number of

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[24]It is undisputed by the experts that multiple regression analysis is an acceptable and widely recognized statistical tool for measuring antitrust impact. (Chipty Report ¶ 62 ("A regression is the standard econometric technique used in problems like this one, i.e., to adjust for observable differences across cable systems so as to evaluate whether, all else equal, overbuilding is less common or prices are higher in Philadelphia than in otherwise comparable areas."); McClave 5/11/09 Merits Rebuttal Decl. at 2 ("There is one area on which Dr. Chipty and I agree. In my initial Declaration, I showed that damages could be estimated for the class employing the commonly accepted methodology of multiple regression analysis. Dr. Chipty appears to agree, since she also employs a similar methodological approach to estimating damages on a class-wide basis.").)

[25]For example, in the FCC's Thirteenth Annual Report on the cable industry, published January 16, 2009, it found that prices charged by cable systems that did not have effective competition were on average 7.9% higher. (Ex. D37 ¶ 45.)

national subscribers leads to rate increases of approximately 2% to 3%, supporting the conclusion of Dr. Williams' clustering model that increases in the number of cable systems owned by an MSO lead to higher rates.

- The FCC reports find that, all else equal, a cable system in a cluster of cable systems owned by an MSO has rates that are approximately 2.5% higher than rates for cable systems not in such a cluster, supporting the conclusion that Comcast's actions caused cable rates to increase, all else equal.

(Id. ¶ 133.) Dr. Williams also cites to reports issued by the GAO evaluating the effects of several key factors affecting cable rates, using data from 1998 to 2004:

- The GAO reports find that, all else equal, a cable system facing competition from an overbuilder (including LECs) has rates that are approximately 7% to 18% lower than rates for cable systems that do not face competition from an overbuilder. This supports the conclusion that Comcast's actions, which reduced the extent of competition provided by overbuilders in the Philadelphia DMA, caused cable rates to increase, all else equal.
- The GAO reports find that, all else equal, a cable system affiliated with a large MSO has rates that are generally 5% to 9% higher than rates for cable systems not affiliated with a large MSO, supporting the conclusion that Comcast's actions caused cable rates to increase, all else equal.

(Id. ¶ 134.)

Finally, Dr. Williams relies on the following published academic research to support his opinion that clustering creates antitrust impact by discouraging overbuilding:

- An empirical analysis by Clements and Brown (2006) of factors affecting cable rates using data from 2001. They assert that their analysis models cable rates as a function of several independent variables, including whether a cable system is affiliated with one of the ten largest MSOs in the country, the presence of a second wire-based MVPD provider such as an overbuilder or an LEC, per capita income, population density, and the capacity of the cable system in megahertz, and determine that affiliation with a large MSO led to higher cable rates. Specifically, all else equal, the researchers find that a cable system that is affiliated with one of the ten largest MSOs has monthly rates that are on average $2.48 higher (6.9% evaluated at the average monthly rate) than similar systems not affiliated with such an MSO. The authors also find that the presence of a second wire-based MVPD provider lowered monthly rates, all else equal, by $5.63 (approximately 15.7% evaluated at the average monthly rate) relative to similar systems without such competition. (Id. ¶ 135.) Williams asserts that this result is consistent with his own clustering model.
- A study by Savage and Wirth (2005) examining the effect of potential competition from a wire-based MVPD provider such as an overbuilder or ILEC on cable rates and on the number of channels offered by incumbent cable operators. Williams states that Savage and Wirth find that when the probability of entry of an overbuilder rises to 42%, the average cable system provides six more channels, and the monthly revenue per channel declines from $0.77 to $0.66 (a decline of 8.6%), supporting Williams' conclusion that clustering raises rates or reduces the number of channels, all else equal. (Id. ¶ 136.)
- A study by Karikari, Brown, and Abramowitz (2003) examining factors that affect DBS

penetration rates and cable rates. Williams asserts that, consistent with the Clements and Brown study, these researchers find that when a cable system is owned by one of the ten largest MSOs, its monthly rates are approximately 5% higher than similar systems not affiliated with such an MSO, all else equal, again supporting the results of his own clustering model. They also find that the presence of a second wire-based MVPD provider lowers monthly rates, all else equal, by approximately 10% compared to similar systems without such competition. (Id. ¶ 137.)

- A study by Dr. Singer (2002) analyzing whether clustering reduces the likelihood of entry by an overbuilder. Singer finds that the presence of a cluster makes an overbuilder entry less likely, supporting Williams' overbuilding model showing that clusters reduce the likelihood of entry by wire-based MVPD providers, resulting in higher rates, all else equal. (Id. ¶ 138.)
- A study by Emmons and Prager (1997) also examining the effect of competition on cable rates and finding that when an incumbent cable system faces competition from a wire-based rival, its rates are lower, all else equal, by approximately 20%. They also find that as the number of cable systems owned by an MSO increased, its rates increased as well, by approximately 2%, supporting Williams' clustering model. (Id. ¶ 139.)
- A study by Beil, Dazzio, Ekelund, and Jackson (1993) examining factors affecting cable penetration rates and basic cable rates, and determining that wire-based competition lowers basic monthly cable rates by $3.21 and pay channel rates by $1.15. (Id. ¶ 140.)

Together, Williams asserts, these studies provide empirical support for his conclusion that Comcast's conduct resulted in subscribers paying higher cable rates in the Philadelphia DMA and provide

empirical support for his overbuilding and clustering models.[26]

Dr. Williams also bases his opinions on the expert reports submitted by Dr. Singer. In his report, Dr. Singer included a substantial analysis of how Comcast's clustering strategy denied overbuilders access to the relevant market. (Singer Decl. ¶¶ 95-136.) This analysis includes discussion of Comcast's alleged strategy initially to deny overbuilders access to CSN Philadelphia and then, after the FCC ruled it was required to offer CSN Philadelphia to wireline but not satellite competitors, to artificially inflate the price of CSN Philadelphia to those competitors. (Id. ¶¶ 97-110.) Dr. Singer also has analyzed Comcast's alleged interference with overbuilder RCN's efforts to construct rival systems by limiting RCN's access to local contractors through the enforcement of non-compete clauses. (Id. ¶¶ 62-63, 111-12.) Finally, Dr. Singer has analyzed the effect on customers of the Comcast Advantage Plan, through which Comcast offered discounts or rate freezes to consumers who agreed not to switch to RCN, noting that this offer was never made to customers before RCN began to enter the area, or to customers in areas not served by RCN. (Id. ¶¶ 113-18.) Dr. Singer opines that Comcast denied overbuilders such as RCN and Verizon access to"critical local inputs," by restricting access to regional sports programming, entering into exclusive arrangements with cable infrastructure contractors, and interfering with local franchising processes, which impaired the overbuilders' ability to compete effectively with Comcast for MVPD service in the Philadelphia DMA. (Id. ¶ 77.)

With regard to contractors, Singer states that Comcast sought to interfere with RCN's efforts

[26]In addition to the government and academic resources he cites to support his theories, Dr. Williams tabulates data on the responses of incumbent cable operators to entry by an overbuilder, cataloging 26 incidents nationwide of price reductions by cable operators faced with the entry of an overbuilder. (Williams Decl. ¶ 143 tbl.6.)

to construct systems in the Philadelphia suburbs by limiting RCN's access to the local contractors upon which RCN relied to construct, operate, and maintain its competing infrastructure. (Id. ¶ 93.) It did so by entering into and enforcing non-compete clauses with its Philadelphia-area contractors, threatening its contractors with a loss of work in the event that they performed services for Comcast's competitors, and included explicit provisions in its contract that installers not "perform any Contractor Services" in areas where Bell Atlantic, GTE, Conestoga, Commonwealth, or RCN competed with Comcast. (Id.) He opines that there was no compelling justification for this conduct other than as part of a strategy to impede competition in the Philadelphia DMA. (Id. ¶ 94.)

With regard to local franchising processes, Singer states that, despite obtaining approval from the FCC and from nine Philadelphia suburbs, RCN could not obtain approval from the City of Philadelphia to begin construction. He states that Comcast played a central role in pressuring City officials to delay or deny RCN's entry into the Philadelphia market. Citing newspaper and periodical stories as the factual basis for his discussion, Singer states that Comcast lobbied both the Mayor and City Council to block or delay RCN's permit approvals in the City, imploring the City to "use its substantial regulatory powers to monitor and mitigate conditions which might otherwise allow RCN to cherry-pick its way to profitability." (Id. ¶ 130.) Singer reports that these efforts delayed Council action on RCN's application for two and one half years, until RCN considered filing a federal lawsuit or a complaint with the FCC, and leading shortly thereafter to RCN's announcement that it was withdrawing its application to build a competitive cable system in the City of Philadelphia. Finally, Singer cites as evidence that Comcast lobbied against state-wide franchise licensing in Pennsylvania by meeting with lawmakers in March 2006, arguing that a state-wide license would

strip local communities of their power.

Having shown that Comcast acted to limit overbuilder competition, Dr. Singer opines that many academic studies have found that cable prices are lower when overbuilder competition is present. He also describes the analyses conducted by the FCC and the GAO discussed supra, as well as his own academic studies and those of other economists who have studied the effect of overbuilder competition. (Id. ¶¶ 107-08.) Dr. Singer has also compiled sources that he asserts the Class may use as common proof that impaired overbuilder competition leads to a reduction in consumer welfare. (Singer Cl. Decl. at 13 tbl. 5.) He asserts that this evidence indicates that exclusionary conduct toward overbuilders results in higher prices for consumers, and represents evidence common to the class that is relevant for cable customers for whom an incumbent cable company has impaired or thwarted competition from overbuilders and hence caused prices to be elevated above otherwise equilibrium prices. (Id. ¶ 15.)

Dr. Williams, summarizing Dr. Singer's report, states that

> Dr. Singer has found that, consistent with his prior empirical work and the results of the overbuilding model . . . , Comcast's conduct reduced the extent of competition provided by overbuilders in the Philadelphia DMA. Thus, Comcast's anticompetitive actions have caused subscribers to pay higher cable rates, and higher by more than a SSNIP, than those subscribers would have paid but for the effect of Comcast's anticompetitive actions on overbuilders. . . .
>
> In sum, economic analysis shows that Comcast's alleged anticompetitive conduct in the Philadelphia DMA reduced the extent of competition provided by overbuilders in the Philadelphia DMA. Econometric evidence shows that reductions in overbuilding cause cable rates to increase, all else equal. Thus, Comcast's conduct led to rates being increased or maintained above the level that would prevail in the absence of that conduct throughout the Philadelphia DMA.

(Williams Decl. ¶¶ 55-56.)

Dr. Teece challenges the class experts' opinions regarding the effect of clustering on

overbuilding.[27] Dr. Teece opines that cable overbuilding has been limited, not because of clustering activity by incumbent operators, but because it is not a viable business model.[28] Overbuilding, he explains, requires a large fixed capital investment, including head-end equipment, deploying cable networks, and expenses related to acquiring franchises. Also, the overbuilder must offer superior prices or quality compared to the incumbent to attract customers. Taken together, Dr. Teece asserts that these factors imply that overbuilders must achieve significant penetration in the overbuilt area merely to break even. He cites testimony from Gerry Lenfest of Lenfest Communications that an overbuilder needs to acquire half of the incumbent's subscribers to be viable. (Teece Reply Decl. ¶ 148.) He also asserts that this view is consistent with the actual experience of overbuilders in the

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[27] Dr. Teece also challenges the class experts' assumptions that clustering is itself anticompetitive. According to Dr. Teece, rather than being anticompetitive, clustering lowers the cost of deploying advanced services and operating a cable system because more subscribers can be served from a particular head-end or other central facility such as a customer service center. This makes a clustered operator a more effective competitor because it can offer consumers better services at lower cost. (Teece Reply Decl. ¶ 141.) Dr. Williams responds that his report demonstrates that clustering is anticompetitive because it reduces the shared boundaries between two cable companies, a conclusion that Dr. Teece's report supports, since he also finds that overbuilders tend to build in adjacent areas. (Williams Cl. Reply Decl. ¶ 65 (citing Teece Reply Decl. ¶¶ 107-08).) Dr. Williams also notes that the FCC has reached the conclusion that "clustering can present a barrier to entry for the most likely potential overbuilder (i.e., an adjacent cable operator)." (Id. (quoting FCC Thirteenth Annual Report).)

[28] In its 2004 Report on competition from overbuilders, the GAO reported that, in addition to demographic factors, financial obstacles hindered the success of overbuilders. (Ex. D29 at 1.) Its survey of overbuilders determined that they were experiencing financial difficulties, that they were putting off network expansion, and that two companies lacked the resources necessary to adequately service their existing markets. (Id.) The GAO also found that the overbuilder business strategy can be difficult to implement because of their inability to gain access to certain cable networks, difficulty in gaining access to residents of multi-dwelling structures, and difficulties securing continued access to adequate financial resources needed for rapid construction of their networks and to market their services. (Id. at 5.) The GAO concluded that the long-term viability of overbuilders was not clear. (Id. at 28.)

past few years, namely that no overbuilder has ever succeeded in the United States. (Id. ¶ 151.)

In contrast, Dr. Teece explains that large scale overbuilding by LECs in clustered areas has been successful, which further calls into question Dr. Williams' theory that clustering negatively impacts overbuilders. Verizon and AT&T have begun offering video service in many areas across the country in competition with incumbent cable operators and DBS providers. (Id. ¶ 153.) Dr. Teece asserts that this large-scale overbuilding by LECs in already clustered areas indicates that clustering does not anticompetitively deter entry by MVPD competitors.[29] (Id. ¶ 154.)

Dr. Teece also opines that Dr. Williams' and Dr. Singer's conclusions with regard to antitrust impact of overbuilding in the Philadelphia DMA are not based on actual fact. He states that, "even accepting plaintiffs' claim that RCN would have entered additional areas in the but-for world, I have seen no evidence that RCN ever intended to build out the entire Philadelphia DMA. Indeed, Dr. Singer, Dr. Williams, and Dr. McClave all assume that but-for the challenged conduct, RCN would have only overbuilt in five counties—Bucks, Chester, Delaware, Montgomery, and Philadelphia." (Teece Cl. Reply Decl. ¶ 119.) Teece notes that while RCN filed with the FCC to operate an Open Video System ("OVS"), an OVS certification filing is an inadequate basis for assuming that RCN would have entered into these five counties (let alone that RCN would have overbuilt the entire counties). He contends that such a filing does not necessarily indicate the ability to actually

[29]Dr. Teece identifies several reasons why overbuilding by LECs has been more successful than cable overbuilding. First, LECs do not build an entire new network from scratch, but rather upgrade their existing networks to provide the additional data and video services. Second, LECs have no requirement to build out an entire franchise area, but can pick and choose where to most profitably expand their service. Third, LECs have strong economic incentives to overbuild because cable companies have begun to offer competing voice service, and they risk losing telephone customers to cable companies offering to package voice, video and data services. (Teece Reply Decl. ¶ 155.)

overbuild those areas. Thus, a company may file a certification, but never actually proceed. For example, RCN submitted filings to the FCC for OVS certification in Portland, Oregon (and surrounding communities), Seattle, Washington (and surrounding communities), Phoenix, Arizona (and surrounding communities) and South Florida, but has not actually entered any of those areas. (Id. ¶ 120.)

Dr. Teece contends that it is unlikely that RCN would have overbuilt in each of these five counties in the but-for world[30] (much less in all five in their entirety). He bases this contention on the fact that RCN faced financial difficulties during the class period that were unrelated to the challenged conduct, and filed for bankruptcy in 2004; even prior to its bankruptcy, RCN announced in 2001 it was halting expansion plans in Philadelphia, citing softening capital markets; and the record shows that RCN never intended to build out the entire Philadelphia County, and in fact protested when the City of Philadelphia was considering requiring RCN to do so. (Id. ¶ 121.)

Dr. Teece also opines that, even if RCN would have overbuilt all five counties entirely in the but-for world, this would not be sufficient to conclude that the antitrust impact of the challenged conduct would have affected all Comcast customers in the Philadelphia DMA. This is because the five counties account for just a portion of the 18-county Philadelphia DMA; even if RCN would have overbuilt all five counties in their entirety, it would still have offered service to just 20 percent of total households in the DMA. (Id. ¶ 122.) Accordingly, he concludes that "even accepting plaintiffs' theories, the impact of the alleged anticompetitive conduct would vary within the DMA,

[30]The experts use the term "but-for world" to describe the hypothetical conditions that would have prevailed had Comcast not engaged in the allegedly anticompetitive conduct at issue in the case.

depending on the presence (or absence) of RCN overbuilding. Individualized analysis therefore would be required to determine the competitive impact in a local area." (Id. ¶ 123.)

Dr. Williams responds to Dr. Teece by asserting that but for Comcast's alleged anticompetitive conduct, RCN likely would have continued to pursue its strategy of building into other areas in the Philadelphia DMA adjacent to its existing cable infrastructure, beyond the five counties to which he and Dr. Singer conservatively limited their examination. (Williams Cl. Reply Decl. ¶ 13.) Moreover, he reiterates, the economic theories of overbuilding and the empirical evidence presented in his declarations indicate that clustering deters overbuilding. He also refers to econometric evidence showing that, all else equal, (1) competition from overbuilders lowers rates by approximately 10% to 20%; (2) Comcast's conduct reduced the extent of competition provided by overbuilders in the Philadelphia DMA; thus, (3) its anticompetitive actions have caused subscribers to pay higher cable rates, and higher by more than a SSNIP than those subscribers would have paid but for the effect of Comcast's anticompetitive actions on overbuilders; and (4) these rate increases are more than a SSNIP, despite the fact that Comcast is not the only provider of multichannel video programming service in the Philadelphia area, and consequently has less (or at least no more) market power than would a hypothetical monopolist of multichannel video programming service in the Philadelphia area to which the SSNIP test applies. (Id. ¶ 14.)

We conclude, with one caveat, that the Class has met its burden to demonstrate that the anticompetitive effect of clustering on overbuilder competition is capable of proof at trial through evidence that is common to the class. The Class has successfully shown, through Dr. Williams' model, as well as his citations to empirical studies conducted by governmental agencies and private

researchers, that the presence of an overbuilder constrains cable prices. The Class has also shown that Comcast engaged in conduct designed to deter the entry of overbuilders in the Philadelphia DMA, including denying RCN access to the services of cable installation contractors.

We are not persuaded by Dr. Teece's criticism of the overbuilder model based on his assertion that the Class cannot demonstrate that overbuilding is a successful business model. The evidence demonstrates that there has been a historic and continuing presence of overbuilders in the wireline cable industry, and governmental studies finding that overbuilder competition constrains cable prices are further proof that it has been a viable business model. We also are not persuaded by his criticisms based on his assertions that it is unlikely that RCN would have overbuilt in each of these five counties in the but-for world, that its efforts in each of the five counties was limited, and that its efforts in these five counties cannot establish common evidence of impact in the entire eighteen county DMA. What Dr. Teece considers "unlikely," Dr. Singer considers to be the common evidence of antitrust impact, namely that RCN was stymied in its efforts by Comcast's predatory behavior.

In reaching our conclusion on the common impact of clustering on overbuilding, however, we place no reliance on Dr. Singer's opinions regarding Comcast's lobbying activities. Comcast argues that Singer's theory is at odds with the Noerr-Pennington doctrine. See Eastern R.R. Presidents Conference v. Noerr Motor Freight, Inc., 365 U.S. 127 (1961); United Mine Workers of Am. v. Pennington, 381 U.S. 657 (1965) (holding that an individual is immune from antitrust liability for exercising First Amendment right to petition the government). For purposes of class certification, we must consider both whether plaintiff's legal claim is plausible in theory, and, if so,

whether it is also susceptible to proof at trial through available evidence common to the class. Jackson, 260 F.R.D. at 184 (quoting Hydrogen Peroxide, 552 F.3d at 325).

Any aspect of the Class's overbuilder theory of antitrust impact based upon Comcast's lobbying activity is not plausible. While Class counsel contended during his closing argument that Dr. Singer properly considered Comcast's lobbying activities as evidence of its anti-competitive purpose and motives (N.T. 11/16/2009 at 30:15-31:19), "parties who petition the government for governmental action favorable to them cannot be prosecuted under the antitrust laws even though their petitions are motivated by anticompetitive intent." Video Int'l Prod., Inc. v. Warner-Amex Cable Commc'ns, Inc., 858 F.2d 1075, 1082 (5th Cir. 1988); see also Westmac, Inc. v. Smith, 797 F.2d 313, 315 (6th Cir. 1986) ("[G]enuine attempts to influence passage or enforcement of laws are immune from antitrust scrutiny, regardless of the anticompetitive purpose behind such attempts."); Tal v. Hogan, 453 F.3d 1244, 1259 (10th Cir. 2006) (holding that Noerr-Pennington doctrine "exempts from antitrust liability any legitimate use of the political process by private individuals, even if their intent is to eliminate competition") (quoting Zimomra v. Alamo Rent-A-Car, Inc., 111 F.3d 1495, 1503 (10th Cir. 1997)).

3. Clustering and its effects on benchmark competition

Dr. Williams also attempts to establish, through common evidence, that Comcast's clustering activity eliminated "benchmark" competition in the Philadelphia DMA. According to Dr. Williams,

> The theory of benchmark (or yardstick) competition as a means of regulating public utilities was developed in a seminal paper by Andrei Shleifer. Professor Shleifer noted that the practice of benchmark regulation, as exemplified by Medicare's policy of reimbursing a hospital based on the average costs of comparable hospitals, predated his theoretical work, as did other regulatory approaches based on cost comparisons across firms. Professor Shleifer's work gave rise to a substantial

> literature on benchmark competition and contributed to the further development of regulatory practices based on comparative evaluations. The economics literature recognizes that benchmark competition can cause firms to offer lower prices and/or improved service quality.

(Williams Decl. ¶ 144.) In order for benchmark competition to cause firms to lower prices and improve service, there must be comparable firms against which comparisons can be made. Dr. Williams opines that "[s]waps and acquisitions that reduce the number of comparable firms diminish the effectiveness of benchmark competition and can result in an increase in rates." (Id. ¶ 145.) He asserts that both regulators and consumers can and do rely on benchmarks. (Id. ¶¶ 146, 154.) He theorizes, based on a survey showing that cable customers in the Philadelphia DMA reported lower awareness of alternative cable providers in their neighborhoods, that the relative lack of benchmarking information for cable subscribers in the Philadelphia DMA reflects a reduction in benchmark competition. (Id. ¶ 155.) Based on evidence that (1) the FCC recognizes benchmark competition; (2) Comcast monitors the rates of other MSOs and is mindful of how its rate increases are perceived by government officials; (3) local franchise area officials in Los Angeles were concerned with the reduction in benchmark comparisons due to Time Warner's consolidation of the Los Angeles area cable market via the swap transactions with Comcast; (4) the above mentioned survey of cable subscribers' awareness of alternative cable providers shows a lower awareness rate in Philadelphia; (5) customer complaints indicating that when customers are aware of prices charged by other operators in their market they will act on that awareness by complaining to Comcast; and (6) internal Comcast documents showing that Comcast executives use benchmarks; id. ¶ 146-61; Williams concludes that

> Cable regulators and cable customers rely on, and cable operators engage in,

> benchmark competition. Comcast's swaps and acquisitions in the Philadelphia DMA had the effect of removing eight firms that offered comparable benchmarks in terms of rates and service quality. Thus, Comcast's swaps and acquisitions resulted in a reduction in benchmark competition.

(Id. ¶ 162.)

Comcast and its experts dispute the evidence Dr. Williams uses to support his benchmark competition theory. Dr. Teece contends that Dr. Williams' theory that clustering reduces benchmarking and therefore leads to higher cable rates lacks any economic or empirical basis. He explains that there is an implicit assumption in Dr. Williams' theory that benchmarks must be nearby (or even adjacent to a customer's cable system) and that the value of the benchmark depreciates the further one gets from it.[31] However, he contends, Dr. Williams provides no economic or empirical basis for this assumption. (Teece Cl. Reply Decl. ¶ 134.) Further, if benchmarking only depends on the availability of comparable systems, regardless of distance, Dr. Williams does not explain how the challenged transactions removed enough comparable systems such that the ability to benchmark prices is impaired. (Id.)

We agree that Dr. Williams has not provided adequate support for his theory that clustering eliminates benchmarking opportunities for consumers and therefore that elimination of such benchmarks constitutes an anticompetitive effect of clustering that is capable of proof at trial through

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[31]We agree with Dr. Teece that Dr. Williams' theory assumes that, to be effective, benchmarks must be local. Dr. Williams' entire clustering theory of antitrust impact is based on the elimination of adjacent cable companies. His assumption that the importance of benchmarks depreciates with distance is unsupported by empirical evidence. As Dr. Teece explains, if "'benchmarking' leads to lower cable rates and the value of the 'benchmark' depreciates with distance, areas near an adjacent cable operator with lower rates should have lower cable rates than areas towards the center of a cluster. Such areas should also exhibit prices similar to the adjacent cable operator. Dr. Williams has provided no such empirical evidence and I am unaware of any such evidence." (Teece Cl. Reply Decl. ¶ 141.)

evidence that is common to the class. The academic support Dr. Williams provides for his benchmarking theory is taken from the literature on the regulation of franchised monopolies such as public utilities. See Andrei Shleifer, "A Theory of Yardstick Competition," 16 Rand J. Econ. 319 (1985). Dr. Williams' citations to FCC studies concern the reduction in benchmarking opportunities for regulators in the context of the rates of phone companies. (Williams Decl. ¶ 147.[32]) He cites no empirical evidence of similar benchmarking behavior by consumers.[33] While he states that the FCC has "discussed the application of benchmark competition in the cable industry," his quote from his source shows that the FCC discussed benchmark competition in terms of local franchise agencies using benchmark competition, not consumers.[34] (Id. ¶ 149.) In the MVPD industry, however, prices

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[32]He also cites a study from the United Kingdom concerning the reduction in benchmarking opportunity for regulators of water utilities. (Williams Decl. ¶ 148 (citing Simon Cowan, "Competition in the Water Industry," 13 Oxford Rev. Econ. Policy 83, 85 (1997).)

[33]According to Dr. Teece, there is no empirical evidence of the elimination of consumer benchmark competition because it is not a recognized economic theory. He testified,

> I find the whole, this whole argument, your Honor, extremely curious. In the textbooks we recognize actual competition and we recognize potential competition. Now what Dr. Williams has done is create a third category, I believe, for purposes of this case, called benchmark competition. It's true that regulators occasionally benchmark one area against another, but there's no evidence here that there can be competition because if consumers don't know about – even if consumers know about what's going on in another franchise area, they don't have a choice. So it doesn't impact their decisions in any significant way. So this whole notion of elimination of benchmark competition is a new one to me and I believe it doesn't have a proper foundation in antitrust economics and there is no evidence to support that it makes a whit of difference."

(N.T. 10/26/09 at 121:22-122:12.)

[34]Furthermore Dr. Williams' quote from the FCC lacks context. In reviewing the assignment of Adelphia assets to Time Warner, the FCC stated that:

are not regulated by local franchise agencies, except for the price of basic cable services, which is not at issue in this case.[35] (Teece Cl. Reply Decl. ¶ 136.) Since Dr. Williams' antitrust impact theory of reduced benchmarking pertains to consumers using cable rates of adjacent cable operators as a basis for comparison, and not regulators, whether local franchise area regulators use the rates of other areas as benchmarks does not support his theory.[36]

The survey Dr. Williams conducted to gauge consumer benchmarking behavior is also problematic. A research group conducted a survey of 400 respondents in each of the DMAs for Los

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> adjacent service areas can provide a useful benchmark for consumers to compare price and service. . . . We recognized . . . that regulatory efficacy is enhanced when there are a "sufficient number of independent sources of observation available for comparison." We believe that not only regulators, but also consumers, can benefit from the ability to observe how different cable operators are serving proximate areas. **Although benchmarking opportunities may be diminished in certain areas as a result of these transactions, we are unable, based on the record, to quantify any effects on competition that may occur**.

(Ex. D27 ¶ 83 (emphasis added) (internal footnotes omitted).)

[35]While contending that benchmarks have been used by both federal and local regulators to regulate cable rates, Dr. Williams recognizes that federal regulators no longer regulate cable rates. (Williams Decl. ¶ 152.) While he cryptically asserts that local franchise agencies "continue to regulate various aspects of the cable industry, including the renewal of incumbents' franchises and competitive entry" (see id.), he elides over the undisputed fact that local franchise agencies have no authority to regulate expanded basic cable rates.

[36]To the extent there is evidence of consumer benchmarking, it appears to refute rather than support Dr. Williams. He provides an example of Comcast customers comparing their own prices and service quality to other Comcast customers, not to other adjacent cable providers. (Williams Decl. ¶ 159.) His other example pertains to Comcast customers comparing their own service quality to that received by RCN and Verizon FiOS customers, not adjacent MVPDs. (Id. ¶ 160.) As Dr. Teece notes, to the extent that RCN and FiOS constitute benchmarks, they remain in the Philadelphia DMA despite the alleged anticompetitive effects of clustering. (Teece Cl. Reply Decl. ¶ 137.) We find that these examples contradict Dr. Williams' contention that only adjacent cable operators serve as valuable benchmarks for Comcast customers.

Angeles, New York, Philadelphia, and Washington. The results showed that cable customers in the Philadelphia DMA reported only a 12% awareness of alternative cable providers versus 18% for Los Angeles, 39% for New York, and 42% for Washington. Dr. Williams opines that because of the lower concentration of cable system ownership in the non-Philadelphia areas, the survey suggests that the lower awareness of **benchmarking information** possessed by cable subscribers in the Philadelphia DMA reflects a reduction in **benchmark competition**. (Williams Decl. ¶ 155.) However, Dr. Williams does not explain in his report how the lack of knowledge of other cable companies necessarily establishes a reduction in benchmark competition. Nor does the survey provide empirical evidence of the level of consumer benchmarking behavior both before and after Comcast's clustering activity began, to examine any reduction due to clustering. He testified on cross-examination that, other than his survey, he conducted no empirical study showing that consumer benchmarking behavior is reduced by clustering, and conceded that Comcast customers still could and did benchmark against Comcast rates charged in other areas. (N.T. 10/15/2009 at 94:6-14, 17-25; 95:1-6.)

Finally, Dr. Williams' reliance on internal Comcast documents in which Comcast executives compare Comcast rates to immediately adjacent cable operators, to others in the region, and also with national benchmarks (see Williams Decl. ¶ 161), does not provide common evidence supporting his consumer benchmarking theory of antitrust impact. According to Dr. Teece, it is common for any firm to track general industry information, including the prices that other firms charge. (Teece Cl. Reply Decl. ¶ 138.) More importantly, these documents are only evidence that **Comcast itself** tracks the prices of other cable firms, not that consumers do so. Also, the documentary evidence,

comparing regional and national benchmarks, appears to conflict with Dr. Williams' premise that only adjacent cable operators can provide consumer benchmarks.

Accordingly, we conclude that the Class has not demonstrated that the alleged anticompetitive effect of clustering on consumer benchmarking is capable of proof at trial through common evidence.

4. Clustering and its effects on bargaining power

As part of his discussion of the geographic market, Dr. Williams attempted to demonstrate how increasing the number of cable systems or clustering its cable systems in a DMA can increase an MSO's bargaining power with programming content providers (such as television networks) and lead to higher profits and higher rates. He opined that

> swaps and acquisitions can increase the bargaining power of a cable operator relative to the bargaining power of a network. This occurs because the swaps and acquisitions have the effect of decreasing the percentage of the cable operator's revenues attributable to any individual network and increasing the percentage of any individual network's revenues attributable to the cable operator. As a consequence of this enhanced bargaining power, the cable operator becomes more patient and more willing to break off negotiations relative to an individual network.

(Williams Decl. ¶ 100.) As a result, he continues,

> when bargaining power shifts to the cable operator, offers that previously would have been rejected by the network will now be accepted (lowering the cable operator's costs of acquiring programming from the network), and therefore a larger share of the gains from trade in the negotiation will accrue to the cable operator. (In a competitive market, these cost reductions would be passed through to subscribers in the form of lower prices. As discussed below, the FCC has determined that any programming cost reductions that may be associated with clustering have not been passed through to consumers.) Consequently, an immediate implication of an increase in the cable operator's bargaining power is that its profits are expected to increase. Cable rates also can increase as a consequence of an increase in the cable operator's bargaining power.

(Id. ¶ 102.[37])

Dr. Williams supports his bargaining theory of antitrust impact in his clustering model. He theorizes that when a cable operator increases its footprint by increasing the number of franchise areas it operates or when it increases the clustering of its franchises (1) a cable network it negotiates with may become relatively less patient during their negotiations and relatively less likely to break off their negotiations, and (2) the cable operator may become relatively more patient and relatively more likely to break off their negotiations. (Id. ¶ 210.) Where a cable operator swaps a geographically distant franchise for a local franchise, one result might be that the cable operator negotiates over a larger share of its revenue with local networks because it now owns more franchises involved with these local networks. At the same time however, the swap will also increase the fraction of the local networks' revenues involved in the negotiations with the cable operator. To the extent that the cable operator's total revenues are large relative to its revenues involved in local network negotiations, the increase in the fraction of the operator's revenues involved in negotiations with any one local network will be small relative to the increase in the fraction of the local network's revenues that are involved in the negotiations. Consequently, while both the operator and local networks may become less patient during their negotiations, an operator whose total revenues are large relative to its revenues generated through any single local network will likely become relatively more patient than any of the local networks with whom it negotiates.

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[37]We note that in the last sentence of Williams' conclusion that he states only that cable rates "can" increase as a consequence of an increase in the cable operator's bargaining power, and not that he has shown that they actually do. Merely asserting that conduct can cause antitrust impact is insufficient. See Hydrogen Peroxide, 552 F.3d at 318 (stating that the movant must do more than "assur[e] . . . the court that it intends or plans to meet the requirements" of Rule 23).

(Id. ¶ 215.) Therefore, Williams asserts, clustering alone can lead the cable operator to become relatively more patient and relatively more likely to break off negotiations with any network, and can lead local networks to become relatively less patient and relatively less likely to break off negotiations. Given any one of these changes, the bargaining model predicts that a larger share of the surplus will go to the cable operator as its franchises become more clustered. (Id. ¶ 216 (citing Ken Binmore, Ariel Rubinstein and Asher Wolinsky "The Nash Bargaining Solution in Economic Modeling," 17 Rand J. Econ. 176 (1986).) Dr. Williams concludes that by either (1) increasing its footprint or (2) by increasing the clustering of its franchises holding its footprint constant, a cable operator can increase its bargaining power over a cable network. (Id. ¶ 217.)

From these premises, Williams attempts to show that increased bargaining power on the part of a clustered cable operator leads to both higher profits and higher consumer rates. He assumes two scenarios: in the first, the cable network has all of the bargaining power and, as such, can make the cable operator a take-it-or-leave-it offer. In the second, the cable operator has all of the bargaining power and can make the network a take-it-or-leave-it offer. (Id. ¶ 219.) Williams then attempts to demonstrate that both the cable operator's profits and average cable rates are higher when the cable operator has all of the bargaining power than when it has none. To understand why a shift in bargaining power to the cable operator increases subscription rates, he analyzes the gains from trade between the network and the operator.

Dr. Williams theorizes that the gains from trade between the network and the operator depend upon information the cable operator does not have, namely whether the terms secured by the network with its advertisers are favorable or unfavorable for the network, and advances the following

argument:

1. Because the gains from trade between the operator and the network are highest when the network's advertising rates are relatively high, the cable operator must be wary of the network's incentive to falsely claim that its advertising rates are relatively low, a ploy that can allow the network to hide advertising revenue for itself.

2. Consequently, any agreement that the operator and network might be expected to reach when the network's advertising rates are relatively low cannot, when its advertising rates are in fact relatively high, be more attractive to the network than the agreement they are expected to reach when the advertising rates are relatively high; otherwise the network will behave as if its advertising rates were relatively low even when they are not.

3. One way for the operator to ensure honesty from the network during negotiations is to insist on a reduction in the number of households receiving the network's programming when the network claims its advertising rates are relatively low, because such reductions are more costly for the network to accept when its advertising rates are relatively high than when they are relatively low.

4. To the extent that the cable operator has relatively more bargaining power, it will extract additional surplus from the network, both when the network's advertising rates are relatively low and when they are relatively high. But because there is less surplus to extract when the network's advertising rates are relatively low, eventually the additional surplus will be extracted only when the advertising rates are relatively high.

5. Consequently, all else equal, the incentives for the network to falsely claim that its

advertising rates are relatively low generally increase with the surplus the cable operator attempts to extract.

6. But all else is not equal. When the cable operator has more bargaining power, it can increase its surplus while maintaining the network's incentives to honestly reveal when its advertising rates are relatively high. The cable operator can do this by insisting on further reductions in the number of subscribers receiving the network's programming when the network claims its advertising rates are relatively low.

7. As a result, Williams concludes, the more bargaining power the operator has, the fewer subscribers there will be of the network's programming when the network's advertising terms are relatively low. Because profit maximization by the cable operator implies that fewer subscribers are obtained by charging higher monthly subscription rates, Williams claims he has demonstrated that the more bargaining power the operator has, the higher will be the cable operator's subscription rates when the cable operator does not know with certainty the advertising rates paid by advertisers to the network.

(Id. ¶¶ 243-45.)

Dr. Williams' bargaining power model has been criticized by both Dr. Teece and Dr. Chipty. Dr. Teece opines that Dr. Williams' model is based on untested and unverified assumptions. (Teece Cl. Reply Decl. ¶ 155.) He contends that Dr. Williams' assumptions regarding uncertainties about the network's advertising revenue, which are the crux of the model's basis for asserting that **lower** programming costs will lead to **higher** prices to cable subscribers, is wholly unsupported. Dr. Teece labels Dr. Williams' result "perverse and unrealistic," as well as contrary to the assertion contained

in Williams' discussion of the effect of clustering on overbuilding, where he claimed that **lower** costs will lead to **lower** prices for cable customers not passed by an overbuilder. (Teece Reply Decl. ¶ 155 (citing Williams Decl. ¶ 94).)[38]

Dr. Chipty opines that, contrary to Williams' conclusions, bargaining power, if it exists, will serve to benefit consumers through a reduction in Comcast's programming costs, which will be passed on to consumers in the form of either lower prices or improved service. (Chipty Cl. Reply Decl. ¶ 9.c.i.) Bargaining power, Dr. Chipty explains, refers to the leverage in a bilateral bargaining negotiation between a buyer and seller. It is widely believed in the cable television industry that as MSOs become larger and more clustered, they have gained greater power to extract favorable pricing and other terms from unaffiliated suppliers of video programming. She contends, however, that it is far from clear how this phenomenon, even if true, has created any competitive harm to Comcast customers in the Philadelphia Cluster due to Comcast's clustering activity. (Chipty Cl. Reply Decl. ¶ 45.)

First, Dr. Chipty reasons that, in most cases, an MSO's bargaining power is likely to be related to the size of the MSO's total subscriber base, rather than its regional size, as reflected by how those subscribers might be clustered geographically.[39] (Id.) Second, enhanced MSO bargaining power with respect to program service is, she opines, an unlikely source of harm to cable subscribers.

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[38]Dr. Teece also notes that, once confronted with criticisms to his model, Dr. Williams offered no empirical evidence in his subsequently filed Reply Declaration to support his theoretical model. (Teece Supp. Cl. Decl. ¶ 58.)

[39]Dr. Chipty does concede that the way an MSO's subscriber base is clustered is likely to be relevant to negotiations between MSOs and local or regional programmers, while contending that it has no relevance to negotiations with national programmers. (Chipty Cl. Reply Decl. ¶ 45.)

To the contrary, the most likely consequence of MSO bargaining power is lower prices to consumers, in the form of some pass through of cost savings. (Id. ¶ 46.) She does not disagree that greater bargaining power leads to greater profits for the MSO; however, she agrees with Dr. Teece that the claim that greater bargaining power is a factor "allowing the cable company to increase its prices" is highly counterintuitive, rests entirely on the particular assumptions adopted by Dr. Williams, and is unlikely to be particularly robust to even relatively minor changes in these assumptions. She notes that, perhaps for this reason, Dr. Williams himself is more modest in his claims about his model, concluding in the main body of his report only that he demonstrates that "[c]able rates also can increase as a consequence of an increase in the cable operator's bargaining power." (Id. (quoting Williams Decl. ¶ 102).)

We find that the criticisms of Dr. Williams' bargaining power model are aptly drawn. His initial assumption, that cable operators must negotiate with content providers without any knowledge of whether the network's advertizing rates are favorable or unfavorable for the network, is wholly unsupported. His model also appears to imply that this knowledge deficit is unilateral; the model does not consider the possibility that networks may not be fully informed about a cable operator's profitability within its cluster. Dr. Williams' assumption that a cable operator will seek to ensure honesty from a network by insisting on a reduction in the number of households receiving the network's programming when the network claims its advertising rates are relatively low is also unsupported by any evidence that cable operators actually engage in this negotiating conduct. Finally, Dr. Williams' theoretical conclusion that the more bargaining power the operator has, the fewer subscribers there will be of the network's programming when the network's advertising terms

are relatively low is unsupported by any empirical evidence.[40] For these reasons, we conclude that the Class has not met its burden to demonstrate that the anticompetitive effect of clustering on bargaining power is capable of proof at trial through evidence that is common to the class.

VI. COMMON METHODOLOGY FOR DETERMINING DAMAGES

A. Dr. McClave's Report

In his report, the Class's damages expert Dr. James T. McClave opines, based on various studies, that prices in areas of effective competition prove to be consistently and substantially less than the prices paid by class members in the Philadelphia market. (McClave Decl. at 15.) He claims that the results of his analysis are consistent with the Plaintiffs' allegations that the alleged anticompetitive acts had the effect of elevating prices above competitive levels over the entire Philadelphia market and throughout the class period. He states that his analyses establish that the impact of Comcast's anticompetitive conduct was class-wide, since his econometric analysis shows that prices were elevated above competitive levels across all class members and for the entire time

[40]The only authorities Dr. Williams cites to support his bargaining theory and model are the Binmore, Rubinstein and Wolinsky article, which concerns only the first part of the Williams model, and the 13th Annual FCC Report on the status of competition in the MVPD market. Dr. Williams quotes from the 13th Annual Report's discussion of the impact of clustering on overbuilding, that "clustering can present a barrier to entry for the most likely potential overbuilder (i.e., an adjacent cable operator). . . . [W]hile clustering may help reduce programming costs and other expenses, the Commission's findings reflect that these lower costs are not being passed along to subscribers in the form of lower monthly rates." (Ex. D37 ¶ 180.) The FCC's finding that lower programming costs are not being passed along to subscribers does not provide empirical evidence supporting Williams' bargaining theory. The FCC reported that the lower costs associated with clustering were possibly due to the fact that clustering makes cable operators more effective competitors **to LECs**, not better negotiators with content providers, and that clustering can provide a means of improving efficiency, reducing costs, and attracting increased advertising. (Id.) Other than its reference to "lower costs," which is not detailed, the Report does not shed light on Williams' assertion that clustering enhances a cable operator's ability to negotiate with content providers. We read this section of the report only to refer to the competitive advantages of cable operators and LECs.

period. Based on his econometric analysis, he opines that "a conservative estimate of the total economic damages suffered by the class plaintiffs is $875,576,662." (Id.)

McClave conducted his analysis by estimating "benchmark" prices against which to compare actual prices charged during the relevant period in the Philadelphia DMA. "Benchmark prices, also referred to as 'but-for' prices, are prices that are unaffected by the alleged anticompetitive conduct, and, as such, can be used to determine whether the conduct did have the effect of elevating prices, and if so, to what extent." (Id. at 3.) He calculated his benchmark prices by creating a database of Comcast cable prices for expanded basic cable for franchises throughout the United States. (Id. at 4.) He then applied standard econometric methodology to the benchmark sample in order to calculate the benchmark prices to be compared to the Philadelphia market prices. He estimated prices based on a multiple regression model of the benchmark data relating the prices in the benchmark sample to several factors found to influence price. He claims "this analysis tells us what factors influence a competitive price for this video service in circumstances reasonably comparable to those presented here 'but for' the challenged anticompetitive conduct." (Id.)

He reports that his objective was to select a benchmark against which to compare the actual Philadelphia prices by finding a sample of counties that represented a level of competition similar to that which Comcast likely would have faced in the Philadelphia DMA absent its alleged anticompetitive conduct. He therefore identified counties that reflected competitive characteristics he would expect to see in the Philadelphia DMA absent the conduct challenged by the Class. Because the Class alleged that the effects of Comcast's anticompetitive conduct were to deter the entry and constrain the penetration of competitors in the Philadelphia market, including overbuilders,

other cable providers, and DBS providers, he focused on Comcast's level of subscriber penetration, the level of DBS penetration in the market, and the presence of overbuilders in the market. (Id. at 5.) He included counties in his benchmark that: (1) reflected Comcast's alleged national subscriber penetration rate of 40% (which was its approximate midpoint penetration rate in the Philadelphia DMA between its 20% rate in 1998 and its 60% rate in 2008); and (2) were in DMAs where the penetration level for alternative delivery systems ("ADS," defined as DBS, and to a much smaller extent, master antenna systems, and multipoint distribution systems) was at or above the national average of ADS penetration rates in Comcast markets. (Id. at 6-7.) Once a county qualified as a benchmark for a particular year by satisfying these two "screens," it was examined to determine whether or not it had been significantly overbuilt, defined as having two or more wireline companies, each having at least 15% of cable subscribers in the overbuilt area. (Id. at 7.) If the percentage was greater than 15%, then he identified the county as overbuilt. (Id. at 7-8.)

McClave used the benchmark county data to estimate "but-for" prices to compare with actual prices in the Philadelphia DMA using a multiple regression analysis. McClave opines that

> Multiple regression analysis enables one to estimate the relationship between price and other factors found to influence price in the benchmark data, and then to use that relationship to estimate prices in the Philadelphia market as if it shared the properties of the benchmark sample; that is, as if Comcast's subscribers continued to represent less than 40% of households, as if the ADS penetration were at least average, and, in at least five counties, as if Comcast faced competition, as described above.

(Id. at 8.) In his comparison, McClave "assumed that only the five counties that RCN indicated it planned to enter as an overbuilder would have been overbuilt: Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties. The model indicates that the Philadelphia DMA market prices were elevated above the but-for prices in every county-year combination." (Id.) He found that

Philadelphia DMA market prices were elevated above the competitive prices by between 11% and 17% over the relevant period. (Id.) He then compared his results to FCC surveys of prices and concluded that his model was a conservative estimate of the price differentiation. (Id. at 9-13.) He calculated the $875,576,662 amount by which class members were overcharged by applying the appropriate overcharge percentage to the appropriate relevant revenue obtained by Comcast for the expanded basic service in Philadelphia for the class period. (Id. at 13.)

B. Comcast's Experts' Rebuttal

Comcast responds that Dr. McClave's model is unsuitable, from an economic perspective, for estimating alleged damages on a class-wide basis because (1) his damages analysis makes assumptions regarding competitive conditions that would have existed but for the challenged conduct that are unreasonable and inconsistent with the economic evidence, and (2) his analysis does not and cannot take into account relevant differences across members of the class.

1. Whether McClave's use of benchmark counties is appropriate

According to Dr. Teece, Dr. McClave does not explain how his screens of counties representing (1) a Comcast penetration rate of no more than 40% and (2) an ADS penetration rate at or above the national average for other Comcast markets, relate to any of the allegations in the Third Amended Complaint. Dr. Teece assumes that the criteria relate to Dr. Singer's theory that foreclosure of regional sports programming impeded DBS penetration, but opines that Dr. McClave's benchmark counties are not a reliable basis for estimating the alleged impact of Comcast's challenged conduct because there is no economic basis for choosing counties with greater DBS penetration than the national average. Dr. Teece faults Dr. McClave for not identifying

counties at a level similar to that which would have occurred in the Philadelphia DMA in the "but-for" world. He also faults McClave for not considering other factors that likely affect DBS penetration in choosing his benchmark counties. (Teece Class Decl. ¶¶ 167-68.)

Dr. Teece specifically takes issue with Dr. McClave's choice of the national DBS penetration rate as one of the screens for his model. He asks why, if the model is designed to forecast the competitive conditions in the Philadelphia DMA absent the alleged anticompetitive conduct, McClave did not use the far lower prediction of DBS penetration stated by Dr. Singer and adopted by Dr. Williams.[41] According to Dr. Singer, DBS penetration in the Philadelphia DMA would have been only 15.4% in 2005 (compared to DBS's actual penetration of 9.4%) if DBS providers had access to CSN Philadelphia, not the far higher national average. (Id. ¶ 169.) Dr. Chipty also argues that using the national average of DBS penetration rates in other Comcast markets is not appropriate.[42]

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[41]Dr. Teece testified:

> Now, I can speak a little bit more specifically to what Dr. McClave did. As I said, he started off with his benchmarks and those benchmarks though, your Honor, are not but-for worlds that were specified by Dr. Williams. They are basically, in my view, arbitrarily chosen and they don't link to the theories put forward on the liabilities side. For instance, the notion that somehow rather DBS penetration should be at the national level, even Dr. Singer's predictions for the Philadelphia DMA don't even show that. So, I find that that is a serious flaw. It was before and what's been done here.

(N.T. 10/26/09 at 137:9-19.)

[42]Dr. Chipty states that there are only two areas in the country where the incumbent cable operator (1) owns the regional sports network (Philadelphia and San Diego); (2) has the right under FCC regulations to maintain cable exclusivity; and (3) has chosen to do so. (Chipty Reply Decl. ¶ 87.) Rather than acknowledge that the Philadelphia situation is only comparable to San Diego, Dr. McClave's study removes all counties where DBS penetration is below the national average,

Dr. McClave did not specifically address this critique in his subsequent expert submissions. We cannot agree, however, that this critique is aptly drawn. There is no disconnect between Dr. McClave's choice of the national DBS penetration rate of Comcast markets, rather than the predicted DBS penetration rate for the Philadelphia market absent the alleged anticompetitive conduct. Dr. Singer's theory that foreclosure of regional sports programming kept the DBS penetration rate in Philadelphia below its predicted level – as opposed to the much higher national average – represents an entirely different concept from the one used by Dr. McClave. McClave used his national average DBS penetration screen as a descriptor of typical competitive market conditions. The fact that DBS penetration would not have reached the level of national average for Comcast markets in the Philadelphia DMA does not mean that national average DBS penetration, combined with median Comcast share during the class period, do not demonstrate a typical competitive market. Typical competitive markets that would satisfy Dr. McClave's benchmark screens do not have Philadelphia's predicted DBS penetration; by definition they have national average DBS penetration levels for Comcast markets.

With regard to the selection of the less-than-40% Comcast penetration rate screen, Dr. Chipty claims that McClave ignores the fact that, as late as 1999, Comcast was only present in a handful of counties in the DMA, and its overall share of subscribers was only 25%. We find that this criticism is not supported by the record. Chipty chooses 1999 data to attack McClave's use of the less-than-40% figure, but 1999 is only one year after McClave's start point of 1998, when he acknowledges

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whatever the reason. Thus, Chipty concludes, McClave has inappropriately removed counties that have low DBS penetration for reasons that have nothing to do with DBS access to regional sports programming. (Id.)

Comcast's share was 20%. That figure grew to 60% over the next ten years. If Dr. Chipty wanted to show that the 40% figure was an overestimate, her assertion would have been stronger if she could have shown that data from the midpoint of the time frame, 2003, or the average rate over the entire time period, did not correspond to the 40% figure. Dr. Chipty makes no such attempt.[43]

2. McClave's omission of population density from the benchmark model

Dr. Chipty opines that McClave's model overestimates damages because McClave fails to account for differences in demographic characteristics between benchmark counties and Philadelphia, including, for example, population density, and percentage of rental units and detached homes. (Chipty Reply Cl. Decl. ¶ 88.) Dr. McClave stated in his report that he considered using population density, as well as the number of households, as additional cost variables, with higher levels expected to decrease per subscriber costs, but when included in the model these factors

> were either wrong signed (having positive associations with price) or statistically insignificant. This may be attributable to their high degree of correlation with the income factor (in statistical parlance, "multicollinearity"), or residual anti-

[43]Dr. Teece also attacks McClave's choice of the less-than-40% penetration rate sign to identify benchmark counties, asserting that it bears no apparent relationship to the Class's claim that the challenged transactions were anticompetitive. He stated that, while Dr. Williams bases his opinion that clustering was anticompetitive on the ground that clustering minimized boundaries that Comcast shared with other MSOs that could possibly become overbuilders in adjacent areas, Dr. McClave makes no attempt to estimate the likelihood of such entry by adjacent cable operators or the effect that such entry would have had on cable prices. Thus, Dr. Teece suggests, Dr. McClave's benchmark counties methodology bears no relation to the Class's allegation that the swap transactions constituted unlawful horizontal restraint on competition. (Teece Class Decl. ¶¶ 174-75.) We reject this criticism. McClave's use of the less-than-40% Comcast share screen is supported by the evidence that it represents Comcast's approximate share of the Philadelphia DMA at the midpoint of the class period. McClave chose this screen because it allowed for some growth during the class period, but allowed him to focus on markets where Comcast was less likely to have market power than it acquired in the Philadelphia market due to the alleged anticompetitive clustering conduct. (McClave Decl. at 6.)

> competitive effects that remain in the benchmark, or some combination of both. I therefore did not include them in the final model specification.

(McClave Decl. App'x A at 1 n.3.) Chipty criticizes this decision because, from "an industry viewpoint, these variables are widely thought to capture both supply and demand side features of the market, and as such there is no a priori expectation about the direction of effect (or sign on the coefficient). . . ."[44] (Chipty Reply Cl. Decl. ¶ 93.)

In response to Dr. Chipty's criticism, McClave states that population density, which is a demographic variable, is positively correlated with income, a variable he had already included in his model. He opines that including population density leads to a result that is unreliable and counter-intuitive to its relationship to price. (McClave Rebuttal Decl. at 18.) McClave criticizes Chipty's inclusion of the variable in her competing damage models[45] because her population density explanatory variable coefficient has a counter-intuitive positive sign, particularly when median household income has already been included. He reasons that since clustering tends to occur in higher income areas, it may also be capturing some clustering effects. As Comcast itself has argued,

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[44]We note that the GAO, in studying wire-based competition from broadband service providers ("BSPs") stated that "[s]ome of the rate impacts that we found may be due to factors other than the BSP entry, such as population density." (GAO 2004 Report at 5.) However, the report goes on to state that "although [a]ll 6 of the BSPs we interviewed mentioned the size of the market as a key factor that they considered in market selection. . . [o]nly 1 BSP focused its business development toward larger cities. . . . Five BSPs built new infrastructure in medium and smaller cities. They told us they took this approach, in part, because they recognized how difficult it would be to meet construction requirements in a large city." Id. at 17-18. "As a result, nationwide, BSPs serve only about 1 percent of the subscription television market. . . ." (Id. at 28.)

[45]We note that Dr. Chipty has specified numerous models to support her own conclusions on the issue of antitrust impact as well as to impeach Dr. McClave's conclusions. Several of Dr. Chipty's models are variations on the McClave model incorporating alternate variables. Others use different data sources. We do not specifically address each of Dr. Chipty's models, but rather focus on her major criticisms of Dr. McClave's results.

and as has appeared in the published literature, higher population density results in lower costs per subscriber. Thus, he would expect a negative relationship between price and population density, particularly with median household income already accounting for demand's effect on price. He contends that the addition of population density in Dr. Chipty's models only masks the effects of anti-competitive influences on price.[46] (Id. at 30-31.)[47]

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[46]Dr. McClave similarly testified:

Q And did you look at the issue of population density as a possible variable?
A I would say [] population density has been probably the most discussed variable between experts in this case, that there is. I certainly did look at it.
Q Did you determine that it should not be used?
A I did.
Q Why did you determine it should not be used?
A There were basically three reasons. The first several are purely statistical. When population density, when I put it into the model to see whether it was important or not, I had an a priori [] understanding that from, for example, Comcast's submissions to the FCC, that in places where there were lots of people, efficiencies should exist and costs should be less than where there are few people. And so, my a priori expectation, which econometricians have when they're putting models together, was that the relationship between population density and price would be inverse, a negative one. That is, as population density went up, costs would go down and so price would go down.
Q Let me stop you for a second.
A Sure.
Q You talk about having an a priori intuition and expectation. Is that unusual for statisticians, econometricians to approach specifying a model with a priori expectations?
A No, it's not unusual at all. In fact, there are econometrics texts that say that it's something akin to moral obligation for an econometrician to establish such hypotheses and expectations. And then, if the data don't live up to that, to try to understand why.
Q So, now, I interrupted you and I'm sorry, Dr. McClave. Please go on and explain to the Judge why you didn't include the population density?
A When I added population density to the model, it had the opposite sign, it had a positive sign, indicating that prices were going up as population density increased. The concern I had, when I saw that, was number one, it didn't

> conform to what I expected. And number two, I was concerned that one of the reasons that that might have been the case was the challenged behavior in this case. In other words, the cluster. And so, the concern I had about leaving population density in the model is, number one, it didn't conform to economic expectation. And number two, it may be tainted by the very behavior that I am assuming was illegal for the purpose of my analysis, was anti-competitive. And then finally, the last reason, your Honor, was the benchmark and we're going to get into this, I know. But the benchmark that I was using in order to estimate prices into Philadelphia, turned out not to have -- turned out that the population density in Philadelphia was somewhat greater than that in most of the benchmark. And so, we call that needing to extrapolate in statistics and it's something we try to avoid. And so, I preferred the median income variable, because median income was a variable that captured all of Philadelphia, that is my benchmark median incomes range captured all the median income for the counties in this area and Philadelphia. And it had the expected sign. Namely, as median income went up, it had a positive relationship with price. Which again, from my reading and my own expectations of the work in this industry, median income, higher median income probably is correlated or a proxy for more demand for cable. And also, higher median income probably means that the cable companies are having to pay more for their labor. So there are several reasons why median income, to me, made much more sense than population density and that's why it ended up in my model and population density didn't. It had nothing to do, Mr. Goldberg, with whether the damages were higher or lower.

(N.T. 10/13/09 at 58:14-61:7.)

[47]Dr. McClave also opines that the inclusion of population density in Dr. Chipty's competing regression models violates an important statistical principle:

> As Dr. Chipty points out, Philadelphia's population density is significantly greater than in the benchmark. Importantly, the maximum population density in the benchmark is 3,600 population per square mile, while Philadelphia's maximum is more than 11,000 per square mile. This is a consequence of defining a benchmark that is relatively free of clustering, but creates a statistical problem when included in Dr. Chipty's multiple regression models. The problem is that when using the models to estimate the Philadelphia "but for" prices, the models are being used to extrapolate far outside the range of values used to estimate the benchmark. That is, the models are used to estimate prices for counties with population density more than 300% larger than the highest population density in the benchmark. This violates a basic statistical principle of multiple regression analysis that advises against such

We find that Dr. McClave's decision not to include population density is well supported. In addition to his report's explanations and his testimony, he shows that population density is improper by looking at what happens when Dr. Chipty includes demographic variables like population density in her regression models, while also including an income variable. For example, because of demographic variables Dr. Chipty's model shows that, other factors equal, markets with a higher percentage of white non-Hispanic population pay lower cable rates. More importantly, her population density variable shows as positive and statistically significant in one model, and negative and statistically significant in another. (Id. at 19; Ex. P86.)

McClave's decision was also supported by FCC and GAO studies which included population density, but found that the variable was not shown to be statistically significant.[48] (Ex. D2 at 81;

> extrapolation, since it can result in unreliable estimates. This problem is avoided by using median income as the demand factor in the models (as I did), since all counties in the Philadelphia market have median incomes that are within the range of the benchmark sample's median incomes.

(McClave Rebuttal Decl. at 31.) He concludes that, as a result of including population density, Dr. Chipty's models produce unreliable estimates of "but-for" prices in the Philadelphia market, and therefore result in unreliable estimates of economic damages there.

[48]When Dr. McClave used the term "not statistically significant," we asked him:

> THE COURT: What does that mean, not statistically significant? Does that mean that if we lifted that variable out completely, population density, the result wouldn't be different to any significant --
>
> THE WITNESS: Certainly in terms of using it to predict prices, yes. What it literally means, your Honor, you can't reject the hypothesis that the true coefficient, the true weight is zero, that it's in there, but explaining nothing more than random variation.
>
> THE COURT: Okay. That's the engineering aspect of it. A guy like me from the street, what am I to conclude with respect to that? Am I

Ex. D3 at 24, 32; Ex. D13 at 47.) In the FCC study, two regression models examining cable prices in overbuilt markets showed that density and density squared had a coefficient of zero and a t-statistic ranging from only 0.03 to 0.87.[49] (Ex. D2 at 81.) In the GAO studies, regression models from 2002 and 2005 examining the influence of various factors on DBS penetration rates showed that population density had coefficients ranging from -0.0973 to 0.0015 and t-statistics ranging from only 0.0001 to 0.8090. While Dr. McClave conceded on cross-examination that the FCC and GAO had indeed included the variable,[50] it was not statistically significant, and accordingly we find that its inclusion in the governmental studies does not impeach Dr. McClave's decision to omit it.[51]

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to conclude that although population density was included by the GAO in 2002 and 2003, the result would have been the same had it not been included? When I say the same, I mean no significant difference.

THE WITNESS: Right. That's right.

THE COURT: I can conclude that?

THE WITNESS: Absolutely.

(N.T. 10/13/09 at 19:25-20:17.)

[49]The t-statistic, or test statistic, tests whether a variable is statistically significant, i.e., whether it is "just random from the data. As opposed to a real relationship, something that's indicated to be statistically significant. So, there are ways we measure that, they're called T-statistics." (N.T. 10/13/09 at 98:9-12.)

[50]He testified that the FCC's purpose in specifying its regression model was different from his purpose: "These FCC studies in my view, and I think you'll find it in the studies, are exploratory. What is it that's affecting cable prices? They don't go to the next step of saying, and I'm going to use this model to estimate cable prices in some region." N.T. 10/13/09 at 10:23-11:2. He added, "If [his model demonstrates a] wrong sign, then one thing I have to think about that the FCC doesn't is what's the reason for that? I concluded that it may well be, given all the studies about clustering and what Mr. Korpus just asked me about, that it's because of the alleged anti-competitive conduct." (N.T. 10/13/09 at 11:17-22.)

[51]At the evidentiary hearing, the Class introduced an exhibit comparing the McClave damages model with various iterations either suggested by Dr. Chipty's criticisms or models that Dr. Chipty

3. McClave's use of list prices rather than actual prices

In creating his damages model, Dr. McClave compared list prices for expanded basic cable in the Philadelphia DMA with list prices for expanded basic cable in the benchmark counties.[52] Dr. Chipty criticizes McClave's model because it does not take into account the significant amounts of promotions and discounts offered to Comcast customers that effectively lower their price for service below the list price that McClave uses in his model. (Chipty Reply Cl. Decl. ¶ 92.) His justification for using list prices, as opposed to discounted prices offered by Comcast for short periods to customers that, for example, package video, internet and cable services into Comcast's Triple Play plan, is that more than 80% of Comcast's customers continue to pay its list prices for expanded basic cable. (N.T. 10/13/09 at 53:9-10.) Further, discounts are reductions from list prices, and are only offered for temporary periods, after which the price returns to the list price. (Id. at 55:18-21.) McClave testified that:

> So, to get a true picture of price and what was happening to the price, we felt as all of these papers that he cited today, also feel that the only way you're going to get a true picture of price is list price. And there is an assumption, your Honor and I've stated it many times, that these discounts are limited in nature and that they're off list price. So that, if the list price were elevated, the discount prices would have been

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herself specified. McClave's model with the population density variable added still reflected damages in excess of $655 million. (Ex. P82.)

[52]McClave testified:

Q Now, in your model, you used the Comcast list price, right?
A That was my attempt, yes.
Q And the price you used to work out the overcharge does not take any customer discounts into account, right?
A The comparison is list price to list price.

(N.T. 10/13/09 at 52:5-10.)

elevated. There is an assumption in my analysis to that affect [sic].

(Id. at 55:15-23.)[53]

To show why her criticism of using list prices affects whether McClave's model is common evidence of antitrust impact, Dr. Chipty specified several regression models of her own. In one model, she reworked McClave's model, allegedly adding as additional factors (1) discounts off list price and (2) population density. (Chipty Reply Cl. Decl. ¶ 92.) To correct for discounts, Chipty substituted a weighted average price for list price.[54] (Id.) She claims that the introduction of these two additional pieces of information more than halved the magnitude of McClave's findings. (Id. ¶ 94.) In some counties, Chipty's model finds that actual prices are less than the "but-for" price that McClave's model predicts. (Id. ¶ 95.) Thus, she opines that McClave's model, as modified, predicts negative damages. For 2007, her modified model finds that 12 of the 16 counties chosen by McClave would have negative damages, and for 2008 all but one had negative damages. Over the entire scope of the modified model, negative damages are predicted for over one-third of the county-

[53]The fact that discounts are not percentage discounts off of list prices does not change the fact that they are discounts from list prices. While Comcast attempted to impeach Dr. McClave by pointing to the fact that its Triple Play price is a flat price, rather than a percentage discount off list, we find this distinction insignificant. It was undisputed that once a discount program ends, the subscriber's fee for expanded basic cable service returns to list price, barring some other discount they are able to negotiate. Even though the Triple Play price is not a percentage discount, it remains that the program is of limited duration and the subscriber eventually will pay Comcast's list price when the promotional period ends.

[54]Dr. Chipty took her data from the 2008 "Television and Cable Factbook" published by Warren Communications News. (Chipty Reply Decl. at 3 n.9.) Dr. McClave criticized Chipty for using this data, which he asserted was not reliably accurate. (McClave Rebuttal Decl. at 4.) While not accepting McClave's criticism, she nonetheless reworked the model using Comcast billing data rather than Factbook data. (Chipty Supp. Decl. ¶¶ 17-18.) She asserts that using the same Comcast billing data that Dr. McClave used yielded the same results. (Id.)

years.[55] (Id. ¶ 96.) Chipty opines that this information serves to expose the unreliability of McClave's methodology for measuring class-wide impact and damages.

We find that this rebuttal model suffers significant flaws. Dr. Chipty's use of weighted average prices (regardless of their source), rather than list prices in a model to estimate damages, is inappropriate. The model Dr. McClave specified is designed to determine the difference between the list price of expanded basic cable prices in the Philadelphia DMA and the list prices in the benchmark counties. He then uses that difference in list price in a formula he applies to Comcast's revenues to determine the Class's alleged damages. Any discount from list price that Comcast subscribers receive is not accounted for in his model, but rather in his formula when the anticompetitive overcharge is multiplied by Comcast's relevant revenues.[56] Dr. Chipty's use of

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[55]Nonetheless, this model does report positive damages over the class period. (Ex. P82.)

[56]McClave testified:

> Q Does your formula account for the discounts that are given to the class members?
> A Yes.
> Q Explain to the Judge how your formula and I'm being careful, I'm not talking about the multiple regression model, I'm talking about the formula, because it tests their formulaic way of estimating damages class wide.
> A Right.
> Q So, let me step back a second. From your expert opinion, is your formula an appropriate way to reliably estimate damages class wide?
> A Yes.
> Q All right, now, explain to the Judge how your formula takes into account the discounts that are given some of which, Mr. Korpus discussed with you on your cross-24 examination?
> A The short answer is it does it in the revenue.
>
> . . .
>
> So, when I said in answers to questions on cross, what I was trying to say is discounts are taken into account at the multiplication stage. At the stage at which we do this. We don't, we don't pretend that everybody is paying list. We take explicitly into account what people

weighted average prices in her model disrupts this equilibrium because she then, like Dr. McClave, uses the resulting overcharge to calculate damages based on Comcast's revenue. The revenue side of the formula, however, already takes into account any discount from list price because that is revenue that Comcast never received. Because Dr. Chipty's weighted average prices double count the discount, we find it does not impeach Dr. McClave's model.

Chipty has also modified McClave's model by (1) dropping counties outside the Philadelphia DMA where an incumbent cable operator offers CSN Philadelphia, because, she contends, they are the only Comcast counties where the Class's experts would say that DBS competition has been unfairly impaired; and (2) adding two additional explanatory variables into the model, Comcast's share of households measured at the DMA level rather than the county level, and the total number of subscribers served by Comcast in the DMA. (Chipty Reply Cl. Decl. Ex. 7 ("the Exhibit 7 model").) Chipty explains that these two variables reflect different aspects of cluster size. (Id. ¶ 100, Ex. 7.) Chipty then uses the Exhibit 7 model's estimation to attempt to directly calculate the extent of the monopoly overcharge associated with clustering by adding the marginal effect of the total number of Comcast subscribers in the DMA on price and the marginal effect of Comcast's share of DMA subscribers on price for each county-year, using 1999 as a base year. (Id. ¶ 102.) Using this method, the damage results she obtained are either statistically indistinguishable from zero, or they are negative. (Id. ¶ 103.)

We find that the Exhibit 7 model also suffers significant flaws. First, this model is not a

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are paying, including the Triple Play.

(N.T. 10/13/09 at 98:9-25; 101:6-11.)

multiple regression model based on comparing benchmarks to estimate "but-for" prices. It purports to be a direct calculation of the competitive overcharge. Dr. McClave, the only statistician expert either side presented,[57] remarks that this method of measuring a competitive overcharge is a "novel and non-standard formula for calculating damages," which he has never seen applied in any similar form to a calculation of damages.[58] (McClave Cl. Reply Decl. at 13.) He calculates that if the Exhibit 7 model is used correctly to estimate "but-for" prices and damages in the standard manner, her damage estimate would have been $1.186 billion, which is greater than his own damage calculation. (Id. at 14; Ex. P82 (red graph).) Accordingly, we find it does not impeach Dr. McClave's model.

4. Dr. Chipty's B1 model

Basic cable prices are referred to as B1 prices, while expanded basic cable, which includes the B1 service, are referred to as B1/B2/B3 prices. Dr. Chipty next tries to impeach Dr. McClave's model by examining what result would obtain if the McClave model were used to examine the

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[57]Dr. Chipty's expertise is in economics and econometrics, which she defined as the application of statistics to economic issues. (N.T. 10/26/09 at 73:12-15.)

[58]McClave criticizes Chipty's use of the two explanatory variables because they are confounded with other factors in the model:

> Her claim that the two explanatory variables used in her formula – Comcast's number of subscribers and DMA market share – are not confounded with the other factors in the model is demonstrably false. One of the factors in her model is Year, and we know that Comcast's number of subscribers and market share has grown over time. Thus, the Year effect in her model is hopelessly confounded with the two subscriber and market share effects, meaning that the estimates she assumes are un-confounded measures of clustering are not. In fact, the clustering effects are also contained in and measured by the Year effect.

(McClave Cl. Reply Decl. at 14.)

regulated prices of basic cable. She explains:

> Since B1 prices are largely determined by regulation (and excluded from Plaintiffs' product market definition), in reality the putative anticompetitive conduct alleged in the Complaint can have no effect on B1 price. As such, an appropriate damages model would not yield any "overcharge" damages associated with the B1 component of prices. Indeed, any differences between B1 prices in Philadelphia and the rest of Dr. McClave's benchmark sample must be due entirely to differences in costs, demographics, and service offerings that are not captured in Dr. McClave's model (unless of course, Plaintiffs are suggesting that the local franchise authorities in the Philadelphia Cluster are themselves harming consumers by unfairly setting higher B1 prices). Thus, applying Dr. McClave' regression model to B1 prices provides a powerful "falsification" test.
>
> In fact, limiting Dr. McClave's benchmark sample to areas in which B1 rates are regulated (i.e., eliminating the areas that have received an effective competition designation from the FCC) and using his methodology for B1 prices only, Dr. McClave's model "finds" significant overcharges! His analysis run using all prices (B1, B2, and where available B3) purports to show overcharges that range between 11.1 and 17.2 percent over the years 2003 to 2008, with an overall (2000 to 2008) average surcharge of 13.1 percent. By comparison, his analysis, when run using B1 prices only shows overcharges that range between -1.9 and 17.0 percent over the years 2003 to 2008, with an overall (2000 to 2008) average surcharge of 9.8 percent.

(Chipty Supp. Decl. ¶¶ 61-62.) Applying the 9.8% overcharge, she concludes that the McClave model, applied to only B1 prices, would result in $675 million in damages to the Class, accounting for 77% of the total damages found by Dr. McClave. (Id. ¶ 63.) Because, she claims, a properly specified model should find no damages associated with the regulated B1 prices, she concludes that Dr. McClave's methodology fails to capture significant differences between his benchmark sample and the Philadelphia Cluster, and that his damage estimates are divorced from the allegations in the Complaint. (Id.)

We find that Dr. Chipty's B1 model does not impeach the McClave model. First, McClave specified a regression model to test expanded basic cable prices, not basic cable prices. Using his

model to test B1 prices is irrelevant.[59] Second, Dr. Chipty admitted on cross-examination that she applied her model's 9.8% overcharge to Comcast's total relevant revenue, not Comcast's relevant B1 revenue, to come up with her $675 million damage calculation.[60] Moreover, the record demonstrates that, while B1 prices may vary from franchise area to franchise area because they are regulated by each individual local franchise agency, the total price that Comcast charges for B1/B2/B3 services across the Philadelphia DMA remains largely unchanged from franchise area to franchise area. (Ex. P87.) Comcast alters the price of B2/B3 component of its services from franchise area to franchise area to equalize the total price of its combined B1/B2/B3 expanded basic cable service.[61] It is within the B2/B3 section of the total price that the anticompetitive overcharge

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[59]Dr. McClave testified that "I don't expect this model to estimate prices other than the expanded basic prices. If you changed the price to the regulated price, then I would expect other variables to be important and so, it's not my model. (N.T. 10/14/09 at 90:20-23.)

[60]Dr. Chipty testified:

> Q What you're showing, I think what you said right at the end of your discussions, "I was shocked to find," you used the word "shock" "that Dr. McClave's model," which of course he says is not his model, "that Dr. McClave's model shows $675 million worth of damages based on B1 prices only.
> A Based on an overcharge calculated in B1 prices, yes.
> Q You didn't multiply that overcharge on B1 revenues only, did you?
> A No, of course not.

(N.T. 10/26/09 at 104:1-9.)

[61]Dr. McClave testified that Ex. P87 shows this equalization process:

> If you look now at the lower blue -- light blue bars, that's the regulated and it turns out both of these are regulated franchises. So, $11.75 is the regulated price or at least, what Comcast charges. It may be actually less than the regulated price for Haverford and $17.85 is the regulated or basic price in Upper Darby. And the point I'm making with this is the B-1 price doesn't matter, because what Comcast does is

occurs. Accordingly, any application of the McClave model to B1 prices explains nothing.

5. McClave's use of DBS penetration as a screen without separately testing each of Dr. Williams' hypotheses

Finally, we address an issue we raised after the close of evidence for the parties to address in their final arguments: how do we interpret Dr. McClave's damages model if, as we anticipated would occur, we credited at least one but not all of Dr. Williams' four bases for antitrust impact? Having reviewed Dr. McClave's methodology more closely, we are convinced that our decision not to credit William's DBS foreclosure theory of antitrust impact does not impeach Dr. McClave's damages model.

As we explained above, Dr. McClave used the average DBS penetration rate for Comcast markets as a screen to select which counties could serve as benchmarks so that he could compare other Comcast prices with the prices charged in the Philadelphia DMA. Once a county passed his two screens, signifying that it qualified as a proper source for pricing data, McClave then applied his regression model's variables to equalize the county's benchmark data in order to isolate the effect of the anticompetitive conduct on price. His selection of the DBS screen to serve this purpose is entirely unrelated to Dr. Williams' DBS foreclosure theory. It was merely his method of choosing counties to serve as comparators. Any anticompetitive conduct is reflected in the Philadelphia DMA price, not in the selection of the comparison counties. Thus, whether or not we accepted all of Dr.

> add whatever it needs to add to get to its list price. So, it would have had to add a different amount to the $17.85, whatever the difference between that and $52.25 is, then it did when it had to add $11.75 to the $52.25.

(N.T. 10/14/09 at 94:10-21.)

Williams' theories of antitrust impact is inapposite to Dr. McClave's methods of choosing benchmarks. Because we have determined that the national average DBS penetration rate for Comcast markets is a valid screen, we conclude that the McClave model is a common methodology available to measure and quantify damages on a class-wide basis.

IV. CONCLUSION

The Class has demonstrated that the appropriate geographic market can be the Philadelphia DMA, as well as at least one theory of antitrust impact, and a common damages methodology. Having found that the Class has demonstrated that it can establish its antitrust claims through common evidence of antitrust impact applicable to all class members, we accordingly grant the Amended Motion to certify the Philadelphia Class. We conclude that the following class should be certified:

> all cable television customers who subscribe or subscribed at any time since December 1, 1999 to the present to video programming services (other than solely to basic cable services) from Comcast, or any of its subsidiaries or affiliates in Comcast's Philadelphia cluster. The class excludes governmental entities, Defendants, Defendants' subsidiaries and affiliates and this Court.

For the purposes of this class definition, the term "Comcast's Philadelphia cluster" is defined to mean:

> those areas covered by Comcast's cable franchises or any of its subsidiaries or affiliates, located in Philadelphia, Pennsylvania and geographically contiguous areas, or areas in close geographic proximity to Philadelphia, Pennsylvania, which is comprised of the areas covered by Comcast's cable franchises, or any of its subsidiaries or affiliates, located in the following counties: Berks, Bucks, Chester, Delaware, Montgomery and Philadelphia, Pennsylvania; Kent and New Castle, Delaware; and Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Mercer and Salem, New Jersey.

An appropriate Order will be entered.

BY THE COURT:

/s/ John R. Padova
John R. Padova, J.