

APPENDIX

E

UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK

IN RE ELECTRONIC BOOKS ANTITRUST)
LITIGATION)
_____)

No. 11-md-02293 (DLC)
ECF Case

This Document Relates to:

THE STATE OF TEXAS, et. al.,)
)
Plaintiffs,)
)
v.)
)
HACHETTE BOOK GROUP, INC., et. al.,)
)
Defendants.)
_____)

Civil Action No.

DECLARATION OF ABRAHAM L WICKELGREN, PH.D
REGARDING DAMAGES TO ELIGIBLE CONSUMERS
AND THE PROPOSED PLAN OF ALLOCATION

August 27, 2012

Qualifications

1. I am the Bernard J. Ward Centennial Professor of Law at the University of Texas at Austin School of Law and a Florence Rogatz Visiting Professor at Yale Law School. Prior to coming to Texas, I taught at the Duke and Northwestern law schools and in the economics department at Texas. From 1999-2004, I was a staff economist at the Federal Trade Commission. I have taught antitrust law since 2007.
2. I received an A.B. *cum laude* in applied mathematics/economics from Harvard University in 1991, a J.D. *magna cum laude* from Harvard Law School in 1994, and a Ph.D. in economics from Harvard University in 1999.
3. I have many publications in a variety of peer-reviewed economics journals on antitrust and industrial organization economics topics. I have many publications on the economics of settlement bargaining. A list of my publications is included in my curriculum vitae, which is attached to this declaration as Appendix D. I have also worked on numerous antitrust cases as an economist during my time at the Federal Trade Commission and as a consultant since that time.

Assignment

4. In this matter, Hachette, Harper Collins, and Simon & Schuster have been accused of engaging in a conspiracy, among themselves and others, to fix prices and otherwise restrain trade with regard to their actions surrounding the introduction of the agency model for e-books. I have been asked by the attorneys for the States of Texas, Connecticut, and Ohio (the "Liaison Counsel") to determine whether the settlement reached between the settling states and the settling publishers is fair, adequate and reasonable. I have further been asked to address whether the plan for the distribution of the settlement proceeds to consumers is fair, adequate and reasonable.

Executive Summary

5. My analysis demonstrates that the settlement amount of \$69.04¹ million is fair, adequate and reasonable. In coming to this conclusion, I conducted an analysis of e-book sales data that enabled me to estimate the overcharges that consumers paid as a result of the

¹ The original total amount of the three Settlement Agreements totaled \$70.28 million. However, pursuant to the terms of the Agreements, a total of \$1.24 million is credited back to the Settling Defendants because Minnesota chose not to join these settlements.

participation of the three settling publishers in the conspiracy surrounding the introduction of the agency model. My analysis generated estimated total overcharges as well as estimated overcharges for three different categories of e-books, as explained in detail below. Comparing these calculations to the settlement proceeds, I find that the settlement amount is quite favorable to consumers.

6. I also reviewed the proposed plan for allocating the settlement proceeds to consumers. This plan distributes the proceeds in a manner that corresponds as accurately as possible to what each consumer could have expected to receive from litigation. It accounts both for the differences in the estimated overcharges across different categories of e-books and the differences in the litigation risks associated with the different categories of e-books. As a result, this allocation plan is fair, adequate, and reasonable.

Data used in this Assessment

7. I used the following data to assess the reasonableness of the settlements between the states and the settling publishers. I reviewed complete, weekly retail sales data for all e-books sold by Amazon and Barnes & Noble from January 1, 2008 (before the introduction of the agency model on April 1, 2010) until February 2011. I also reviewed complete retail sales data from Apple's iBookstore from April 1, 2010 until February 2011. This data includes the weekly quantity sold and revenue for each e-book sold. By dividing the weekly revenue by the weekly quantity, I determined the average price each e-book was sold for during the week.
8. I received and reviewed complete, weekly sales data between March 2011 and early December 2011 from Amazon. Barnes & Noble and Apple did not provide data after February 2011.
9. I also reviewed data on the aggregate sales of e-books from Amazon and Barnes & Noble from April 1, 2010 until the end of the claims period, May 21, 2012. This data provides the total number of e-books sold and the total revenue received from the sale of e-books by each defendant publisher in each of three categories: New York Times Bestsellers, front-list e-books and back-list e-books.
10. For the purposes of my analysis, all sales of an e-book were included in the New York Times Bestseller category if the e-book was on the New York Times Bestseller list (fiction, non-fiction or advice) at any time between April 1, 2010 and the end of the claims period. Sales of an e-book were placed in the front-list category if the e-book was never on the New York Times Bestseller list between April 1, 2010 and the end of the claims period, and the sales took place within 12 months of the e-book's release. Sales of

an e-book were categorized as back-list if the e-book was never on the New York Times Bestseller list between April 1, 2010 and the end of the claims period, and the sales took place more than 12 months after the e-book's release.

11. Note that the sales of a given e-book could be categorized as front-list at some times and back-list at other times. If an e-book was ever on the New York Times Bestseller list, however, then all sales were categorized as New York Times Bestseller sales even if a particular sale took place before or after the e-book was on the bestseller list. This is the sales categorization method used in the aggregate data received from Amazon and Barnes & Noble.

Methods used to Calculate Consumer Harm

12. Consumer loss from the conspiracy consists of two main components. First, consumers were harmed by paying higher prices for the e-books that they continued to purchase after the introduction of the agency model. Second, consumers were harmed by not buying (or buying fewer) e-books than they would have bought had e-book prices not increased because of the conspiracy.
13. I estimated the consumer loss from the first component, but not the second. To measure the second component of consumer loss would have required estimating how many e-books consumers would have bought at lower prices and how much value consumers lost as a result of forgoing those purchases. Such an estimate would have been difficult to generate with any degree of certainty based on the data I reviewed. The loss resulting from this second component would also almost certainly have been relatively small compared to losses incurred by paying higher prices.² Because this loss is almost certainly very small, calculating this amount was not necessary to my conclusions.
14. To estimate consumer loss from purchasing higher priced e-books, I determined the magnitude of the price increase caused by the introduction of the agency model and then multiplied this by the number of e-books that consumers purchased.
15. In order to provide a more precise estimate of the loss and to determine each publisher's contribution to that loss, I calculated both the estimated price increase and the quantity purchased separately by publisher and by the three categories of sales (New York Times Bestsellers, front-list, and back-list). To determine the magnitude of each these price

² The loss per e-book has to be strictly less than the amount of the price increase or else the consumer would have bought the e-book.

increases, I engaged in a “but for” or “counterfactual” analysis. As explained below, this involved estimating the e-book prices that would have prevailed in the market absent the conspiracy, the “but for” prices. I then compared these “but for” prices to the e-book prices that actually prevailed under the conspiracy.

16. Calculating the average price increase was complicated by the fact that e-books are not a homogenous product. Different e-books have different values to consumers and are priced differently as a result. Furthermore, the same e-book has a different value to consumers when it is first released as compared to its value later in its life-cycle. Thus, any comparison of the average price of e-books before and after the agency model would combine the effects of the agency model with the effects of a different composition of e-books at different stages of their life-cycle.
17. While this makes comparing the average e-book prices before and after the agency model an invalid measure for estimating the effect of the agency model for most e-books, the New York Times Bestsellers are an exception to this general rule. The reason is that in the pre-agency regime there was almost complete homogeneity in the pricing of New York Times Bestsellers. They were essentially all priced at \$9.99 while they were on the New York Times Bestseller list. (My analysis of pre-agency pricing of New York Times Bestsellers based on the weekly sales data described above showed that the 10th percentile price was \$9.99 and the 90th percentile price was \$10.00.)
18. The “but for” analysis was complicated by the fact that the aggregate data classified an e-book as a New York Times Bestseller for all of its sales if the e-book was on the Bestseller list at any time after the introduction of the agency model. Thus, the appropriate “but for” price had to take into account how e-books that were on the New York Times Bestseller list were priced prior to being on the list and after coming off the list and the relative share of their sales that occurred in each period. Fortunately, my calculations showed that variation in pricing for these e-books prior to their being on the bestseller list and after they came off the bestseller list was small.³ This lack of pricing variation suggested that there is very little potential error using the average price of New York Times Bestsellers prior to the introduction of the agency model.
19. Using this method, I calculated the “but for” price for New York Times Bestsellers to be \$10.11 based on the average price of e-books in this category prior to the introduction of

³ Appendix A provides more detail on this variation and my analysis showing why it was not significant.

the agency model.⁴ Thus, I estimated the consumer loss for the New York Times Bestseller category of e-books as the average price of those e-books post-agency minus the average price of that category of e-books pre-agency (\$10.11) times the total number of e-books sold in that category during the claims period.⁵

20. For e-books that were not New York Times Bestsellers, there was no uniform pricing policy during the pre-agency period. Because of that, I used the following approach to estimate the price increases for non-New York Times Bestsellers. For every e-book that had sales in the four week period before the introduction of the agency model and in the four week period afterwards, I calculated the average sales price of that e-book in both periods.⁶ The difference between the post-agency average price and the pre-agency average price represented the agency price increase for a given e-book. I then calculated a weighted average of this price increase with the weights based on the unit sales of each e-book in the post-agency window. This was done separately for each publisher and separately for front- and back-list e-books. This produced an estimated average price increase, by publisher, for front-list and back-list e-books.
21. This approach to estimating the price increase due to the agency model was reliable because it compared before and after prices for the same (or very similar) products. Because the window used (four weeks on each side of the introduction of the agency model) was fairly narrow, the value of a given e-book to consumers was likely to be similar in both periods.⁷ Therefore, it is reasonable to attribute any difference in price to the introduction of the agency model.
22. The four week window method of estimating the price effects provided a reasonable estimate of how the conspiracy affected e-book prices. By ensuring that I compared the prices of the same products, I generated a relatively unbiased estimate of the price effect due to the agency model.

⁴ This average was \$10.11 rather than \$9.99 because e-books in this category sold at a slightly higher average price when not on the New York Times Bestseller list than they did when they were on the list.

⁵ I calculated the post-agency average prices individually for each publisher in order to allocate the consumer overcharges appropriately across publishers. Because there was so much homogeneity in the pricing of New York Times Bestsellers pre-agency, there was no reason to separately calculate the pre-agency average prices for each publisher.

⁶ I also calculated prices using a window of three weeks before and after the introduction of the agency model. Because the results were quite similar, I based my estimates on the longer, four week window.

⁷ For example, consider an e-book that was newly released three weeks before the introduction of the agency model. The pre-agency price would be the average of its prices in its first, second, and third week after its release. Its post-agency price would be the average of its prices during its fourth, fifth, sixth, and seventh weeks after release. Absent a change in pricing policy, the price of an e-book during this period is unlikely to change dramatically.

23. To calculate the quantity of e-books sold under the agency model during the claim period, I reviewed data from Barnes & Noble and Amazon showing the total quantity of e-books they sold in each of the three categories and for each of the three settling publishers during the period from April 1, 2010 through May 21, 2012. Since I did not review aggregate data from any other retailers, I estimated the total number of e-books sold during the claims period by all retailers based on an estimate of the combined market share of Amazon and Barnes & Noble.
24. I estimated unit market share in two ways. Further details regarding these methods are set forth in Appendix B. Together, these market share data suggest that 85 percent is a reasonable figure for the combined market share of Amazon and Barnes & Noble during the agency model period. Thus, I estimated total e-book sales by all retailers by dividing the units sold by Barnes & Noble and Amazon by 0.85. This resulted in an estimate of approximately 83.8 million e-books across the three settling publishers for all three categories of e-books.

Estimated Damages and the Reasonableness of the Settlement Agreement

25. Using the methods described above, I estimated the consumer overcharges in the settling jurisdictions from the sales of e-books by the three settling publishers for each of the three categories of e-books during the claims period. I estimated the total consumer overcharges to be approximately \$135.79 million. This is the sum of estimated consumer overcharges for each of the three categories:
 - a. New York Times Bestsellers--\$38.66 million;
 - b. Front-list--\$27.73 million;
 - c. Back-list--\$69.40 million.
26. These unadjusted estimates, however, do not provide a reasonable point of comparison for the settlement amount because these estimates do not take into account any discount for litigation risks. While the states' case is quite strong, no case is without litigation risk. These litigation risks are especially significant given the unpredictability of antitrust litigation.
27. Thus, a fair, adequate and reasonable settlement will reflect a discount from the estimated consumer loss based on the fact that the settlement gives consumers a certain recovery whereas consumers run a substantial risk of receiving nothing if the publishers were to win at trial.
28. The appropriate discount to be taken for each class of e-book varies with the difficulty of proving the case. Based on discussions with Liaison Counsel, it is my understanding that

the case is strong for New York Times Bestsellers, slightly less strong for the non-NYT bestseller front-list e-books and least strong for the non-NYT Bestseller back-list e-books. Drawing heavily from discussions with Liaison Counsel, I assigned a percentage range of risk consistent with this evaluation for each of these three components of sales. For NYT Bestsellers, I assigned a percentage range of recovery of between 85 percent and 60 percent. For non-NYT front-list e-books, I assigned a percentage range of recovery of between 75 percent and 50 percent. For non-NYT backlist e-books, I assigned a percentage range of recovery of between 50 percent and 25 percent. When these percentage ranges are applied, the maximum expected recovery would be \$88.36 million; the minimum expected recovery would be \$54.41 million. The midpoint between these maximum and minimum expected recovery estimates is \$71.385 million. The States' recovery is \$69.04 million, which is close to the midpoint in the range of expected recovery. This supports my conclusion that the settlement is fair, adequate, and reasonable.⁸

29. This recovery is even more favorable considering that most economic models of settlement bargaining predict that a plaintiff in a case like this would be unable to obtain even the full expected value of its case (that is, the value discounted for litigation risk) due to the fact that the defendant may have some information that the plaintiff does not (even after discovery) and because it is the plaintiff that has to make the final decision about whether to file suit or accept a settlement.⁹
30. Additionally, the monetary recovery for consumers does not fully capture the true measure of the consumer benefit from this settlement. The settlement also includes an injunction against future conduct of the type that caused the increase in consumer prices, with the attendant benefit of restored competition in the e-book market. Consumers will realize the benefit of this injunction upon its entry, which could be substantially earlier than resolution of this matter against non-settling parties.

Consumer Allocation Methodology

31. Counsel has instructed me that while the settlements are with only three of the five publishers that participated in the agency model conspiracy, consumers of e-books from

⁸ Note that the level and rank ordering of risk reflects the information available at the time of settlement. Further discovery in ongoing litigation against the non-settling Defendants could change the perceptions of success probability associated with each type of e-book.

⁹ See, for example, Warren Schwartz and Abraham L. Wickelgren, *Advantage Defendant: Why Sinking Litigation Costs Makes Negative Expected Value Defenses, but not Negative Expected Value Suits Credible*, 38 *Journal of Legal Studies* 235-253 (2009)

all five publishers will receive compensation. In this section, I evaluate whether the States' Plan of Distribution is fair, adequate and reasonable and provides an appropriate method to calculate the recoveries for each category of e-book to assist this process.

32. In aggregating each consumer's total compensation from her individual e-book purchases, I weighted each category by discounting New York Times Bestsellers by 25 percent, discounting front-list e-books by 40 percent, and discounting back-list e-books by 67 percent. As discussed above, I used these weights because the litigation risk differs across categories. As part of the damages analysis described above, I estimated price increases from the conspiracy separately for each of the five publishers and separately for New York Times Bestsellers and front-list and back-list titles. These price increases will serve as the baseline for determining how much each consumer should receive.
33. Once I determined the weighted estimated overcharges for each category of e-books, I calculated a baseline monetary compensation amount. It was then necessary to convert this monetary recovery per consumer into a percentage of the total consumer settlement amount. Calculating this percentage for every consumer will enable the States to award each consumer this percentage of the total amount of the current settlement. For more details on this procedure, see Appendix C.
34. As Appendix C describes in detail, this approach yields the following compensation amounts per e-book for each e-book category:
 - a. New York Times Bestseller--\$1.32
 - b. Front-list e-book--\$0.36
 - c. Back-list e-book--\$0.25
35. It is important not to run the risk of exhausting the settlement pool before all consumers have been compensated. Thus, these compensation figures were designed to only exhaust approximately 95 percent of the settlement pool. Then, after all claims are filed, any unallocated settlement proceeds can be allocated, pro-rata, to the filing consumers.
36. Counsel has informed me that it may not be technologically feasible to compensate consumers differently for front-list and back-list e-books. If that is the case, then one can use a similar methodology to calculate the compensable overcharge for a combined category of non-New York Times Bestsellers. The compensable overcharge for this combined category would be \$0.30 per e-book.¹⁰

¹⁰ This figure more closely approximates the back-list compensation amount because there were many more back-lists sales than front-list sales in the data I reviewed.

Conclusions

37. I have reviewed the proposed settlement agreements between the states and the three settling publishers and believe them to be fair, adequate, and reasonable. I also believe the proposed method of allocating the settlement amount across consumers is fair, adequate, and reasonable.

Pursuant to 28 U.S.C. §1746, I declare under penalty of perjury that the foregoing is true and correct.

Executed on August 27, 2012



Abraham L. Wickelgren

**Appendix A:
Price Variation among New York Times Bestsellers**

1. As demonstrated in the main body of this declaration, prior to the introduction of the agency model, there was almost no variation in the pricing of New York Times Bestsellers while these e-books were on the bestseller lists. While there was somewhat more variation in pricing for these e-books prior to their being on the bestseller list and after they came off the bestseller list, it was small. The 10th through 30th percentile prices for these e-books before they appear on the bestseller list were both \$9.99. This means that at least 20 percent of these e-books sold at exactly \$9.99. The median price (50th percentile) for New York Times Bestselling e-books prior to making it onto the Bestseller list is \$12.03. The 90th percentile price is \$14.16 (90 percent of the sales of e-books in this category occurred at a price of less than \$14.16 prior to the time when these e-books first appeared on the New York Times Bestseller list).
2. After the e-books came off the best seller list, the 10th percentile price was \$8.36, the 20th percentile price was \$9.35, the median price was \$9.98, and the 90th percentile price was \$10.32.
3. While individually this variation between e-book prices before and after being on the bestseller list was not trivial, it was fairly small compared to the general variation in e-book prices. Furthermore, many of the sales of these e-books, about 40 percent, occurred while these e-books were on the New York Times Bestseller list. During this time there was almost no price variation. This is important because it suggests that the average pricing of e-books that (at some point) appear on the New York Times Bestseller list was not likely to vary that much with the particular e-books in question. Moreover, because the variation in the average price of a group of e-books will always be *much less* than the variation in the prices of individual e-books, this suggests that using the typical pre-agency price for New York Times Bestsellers was a very good approximation for what the price of post-agency New York Times Bestsellers would have been had there been no conspiracy.

Appendix B: Market Share

1. I developed the 85 percent estimate for Amazon and Barnes & Noble's combined market share from two sources of data. First, I reviewed weekly sales data from Amazon, Apple, and Barnes & Noble from the beginning of the agency model conspiracy through February 2011. Second, I reviewed market share information from some publishers by retailer for the 2011 calendar year.
2. From the weekly sales data, I determined the unit market share of Amazon and Barnes & Noble relative to the sales of the three largest e-book retailers during the period for which I had weekly sales data. This did not give total units market shares since this data excluded any sales from the smaller retailers. That said, these smaller retailers comprised less than 5 percent of the market.¹¹ This data indicated that from April 1, 2010 until December 31, 2010, Amazon's unit share of these three was 70 percent and Barnes & Noble's unit share was 21 percent. During the first two months of 2011, Amazon's share dropped to 65 percent and Barnes & Noble's increased to 28 percent. This was consistent with industry reports of Amazon's declining e-book share over time. If, as this data indicated (though I only had two months of data from 2011), Amazon's declining share was largely captured by Barnes & Noble, then this indicated that of the three big retailers, Amazon and Barnes & Noble accounted for about 91 to 92 percent of the unit sales. Assuming that this data omitted approximately three to five percent of the total unit sales that came from smaller retailers, this indicated that the combined market share of Amazon and Barnes & Noble was approximately 87 to 88 percent.
3. The 2011 sales data from the publishers suggested a smaller market share for these two retailers. One publisher's 2011 data has Amazon and Barnes & Noble accounting for a combined 81 percent of their sales. Another publisher's 2011 data has Amazon and Barnes & Noble accounting for a combined 84 percent of their sales. Notice, however, that this is sales market share, not units market share. I need to determine in units market share since I am trying to calculate the total number of units sold given the number of units sold by Amazon and Barnes & Noble. Given that the agency contracts all contain most favored nation clauses, however, the units market shares and the sales market shares should not be that different.
4. Together, these two sources of data suggest that Amazon and Barnes & Noble had a combined market share of approximately 85 percent.

¹¹ Based on information I reviewed from settling publishers, it appears that Apple, Inc. has an approximate market share of 12%.

Appendix C:
Explaining the Consumer Allocation

1. There are two discounts that need to be applied to the overcharge estimates for each category of e-book. First, the overcharge must be discounted for the uncertainty in the overcharge estimations and for litigation risk. Then it must be discounted again because of the partial nature of the settlement, i.e., only three of the five conspiring Publishers have settled and the settlement accounts for 62.3 percent of the total discounted (for litigation risk) consumer loss caused by the conspiracy.

2. To see how the consumer allocation can be implemented, consider the following example. Say that consumer A was overcharged \$10 for New York Times Bestsellers, \$10 for front-list e-books, and \$10 for back list e-books, while consumer B's overcharges are \$20 for New York Times Bestsellers and \$10 for front-list and this consumer purchased no back-list e-books. Both would have an un-weighted aggregate overcharge of \$30. However, based on conversations with Liason Counsel, my understanding is that the case for New York Times Bestsellers is stronger than the case for front-list e-books, which, in turn, is stronger than the case for back-list e-books. Accordingly, it would not be appropriate to give these two consumers the same recovery. If I discount consumer loss from New York Times bestsellers by 25 percent, discount consumer loss from front-list e-books by 40 percent, and discount consumer loss from back-list e-books by 67 percent. Consumer A's aggregated damages would be $\$7.5 + \$6 + \$3.33 = \16.83 , and consumer B's aggregated damages should would be $\$15 + \$6 = \$21$.

3. I can then convert this dollar amount of recovery per consumer into a percentage of the total amount all consumers are entitled to. Once I have this percentage for every consumer, one can award each consumer this percentage of the total settlement amount. To use our simple example, if there are only these two consumers, then consumer A would receive $16.83/37.83$ (approximately 44 percent) of the settlement and consumer B would receive $21/37.83$ (approximately 56 percent). The total settlement will not reflect even the full damages aggregated in this discounted way because consumers can recover from publishers who have not settled, and thus who have not contributed to the compensation pool yet for the overcharges from their e-books. Thus, if the total settlement were \$30 in this example, consumer A would receive $(16.83/37.83) * 30 = \$13.35$, and consumer B would receive $(21/37.83) * 30 = \$16.65$.

4. I applied this methodology to the actual settlement amount and the total estimated damages consumers of all five agency publishers suffered. First note that using the same information and methodology as I used to calculate the estimated consumer loss, I calculated the discounted consumer loss. In consultation with counsel and based on the relative litigation risks, I discounted New York Times Bestsellers by 25 percent, front-list e-books by 40 percent and back-list e-books by 67 percent.¹² This creates an estimated discounted total overcharge for all five agency publishers of \$110.7 million. Because only three of those five publishers have settled at this time, the total settlement amount only reflects the discounted consumer loss from these three publishers. To account for this, I then needed to adjust the monetary compensation based on the percentage of discounted consumer loss that is available in the current settlement. Since the current settlement is \$69.04 million, and the discounted consumer loss is \$110.7 million, each consumer can only receive $\$69.04/\110.7 (about 62.3 percent¹³) of its discounted loss.
5. I estimated the average overcharge (across all five publishers) for each category of e-books to account for the fact that publisher-specific differences calculated using the four week window method for estimating price effects could have been due to the different mix of e-books that the publishers happened to be offering at that time. If this was the case, then an average overcharge was more likely to represent the effect of the conspiracy on a particular e-book than using a publisher-specific overcharge.
6. Given that all e-book consumers will be compensated from the settlement proceeds, even those who purchased e-books from the publishers that have not settled, using an average overcharge also seemed appropriate. Furthermore, this estimate was based on more data than the publisher-specific overcharge estimates.
7. Using an average overcharge figure for each category of e-book, the average overcharge for New York Times Bestsellers is \$2.99 per e-book (the difference between the average price of \$13.10 for New York Times Bestsellers during the agency period and the average price of \$10.11 for these e-books in the pre-agency period) The average overcharge for front-list e-books is \$1.04 and the average overcharge for back-list e-books is \$1.27. These are both calculated using the four

¹² These discount percentages are consistent with the estimated recovery ranges given above. They reflect a 75 percent recovery on New York Times Bestsellers (the range used above was 60 percent to 85 percent), a 60 percent recovery on front-list e-books (the range used above was 50 percent to 75 percent), and a 33 percent recovery on back-list (the range above was 25 percent to 50 percent).

¹³ As discussed above, this is rounded down to ensure that there are sufficient funds to compensate all consumers according to the formula.

week window methodology described above and averaged using the unit weights from the aggregated data from Barnes & Noble and Amazon.

8. I then discounted these overcharges for both litigation risk and partial recovery, as discussed above, to generate the compensable overcharge for each category of e-book. This compensable overcharge assumes that 100 percent of the settlement is distributed to consumers and that every eligible consumer receives a distribution. For New York Times Bestsellers the compensable overcharge is $\$2.99 * .75 * .623 = \1.39 per e-book. For front-list e-books the compensable overcharge is $\$1.04 * .6 * .623 = \0.38 per e-book. For back-list e-books the compensable overcharge is $\$1.27 * .33 * .623 = \0.26 per e-book.¹⁴
9. It would be prudent to reserve five percent of the settlement proceeds until one sees how many claims there are. This way, one does not run the risk of paying too much to earlier filers and not having enough for later filers. Thus, initially, one should award only \$1.32 per New York Times Bestseller, \$0.36 per front-list e-book, and \$0.25 per back-list e-book. Then, after all claims are filed, any unallocated settlement proceeds can be allocated, pro-rata, to the filing consumers.

¹⁴ Again, all the figures are rounded down to guarantee there is enough money to compensate everyone as directed.

Appendix D: Curriculum Vitae of

ABRAHAM L. WICKELGREN
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PROFESSIONAL POSITIONS

Yale Law School, Florence Rogatz Visiting Professor of Law, 2012-2013
University of Texas School of Law, Bernard J. Ward Centennial Professor, 2009-
Duke University School of Law, Visiting Professor, 2008-2009
Northwestern University, School of Law, Assistant Professor, 2006-2009
University of Texas at Austin, Dept. of Economics, Visiting Asst. Professor, 2004-2006
Federal Trade Commission, Bureau of Economics, Staff Economist, 1999-2004

EDUCATION

Harvard University, Ph.D. in Economics June 1999
Harvard Law School, J.D. Magna Cum Laude June 1994. Harvard Law Review 1993-1994
Harvard College, A.B. Cum Laude in Applied Mathematics/Economics June 1991

RESEARCH INTERESTS

Law and Economics, Antitrust, Contracts, Regulation, Settlement

BOOK CHAPTERS

“Option Contracts,” in *Contract Law and Economics* volume of *Encyclopedia of Law and Economics*, B. Bouckaert and Gerrit De Gees eds., Edward Elgar Publishers, January 2011.

“Enforcement Issues in Antitrust”, *Research Handbook on the Economics of Antitrust Law*, Einer Elhauge ed., Edward Elgar Publishers, February 2012.

“Law and Economics of Settlement”, *Research Handbook on the Economics of Tort Law*, Jennifer Arlen ed., Edward Elgar Publishers, Forthcoming.

PUBLISHED AND FORTHCOMING PAPERS

Optimal Antitrust Enforcement: Competitor Suits, Entry, and Post-entry Competition (with Warren Schwartz) , 95 *Journal of Public Economics* 967-972 (2011)

Ex Ante or Ex Post Competition Policy? A Progress Report (with Marco Ottaviani), 29 *International Journal of Industrial Organization* 356-359 (2011)

Standardization as a Solution to the Reading Costs of Form Contracts, 167 *Journal of Institutional and Theoretical Economics* 30-44 (2011)

Chilling, Settlement, and the Accuracy of the Legal Process (with Ezra Friedman), 26 *Journal of Law, Economics, & Organization* 144-157 (2010)

A Right to Silence for Civil Defendants, Forthcoming, 26 *Journal of Law, Economics, & Organization* 91-114 (2010)

Credible Discovery, Settlement, and Negative Expected Value Suits (with Warren Schwartz), 40 **RAND Journal of Economics** 636-657 (2009)

The Perverse Effect of Outside Options on Strategic Delay in Bargaining, 165 **Journal of Institutional and Theoretical Economics** 210-229 (2009)

Why Divorce Laws Matter: Incentives for Non-Contractible Marital Investments under Unilateral and Consent Divorce, 25 **Journal of Law, Economics, & Organization** 80-106 (2009)

Advantage Defendant: Why Sinking Litigation Costs Makes Negative Expected Value Defenses, but not Negative Expected Value Suits Credible (With Warren Schwartz), 38 **Journal of Legal Studies** 235-253 (2009)

No Free Lunch: How Settlement Can Reduce the Legal System's Ability to Induce Efficient Behavior (with Ezra Friedman), 61 **SMU Law Review** 1355 (2008)

Naked Exclusion, Efficient Breach, and Downstream Competition (with John Simpson), 97 **American Economic Review** 1305 (2007)

Bundled Discounts, Leverage Theory, and Downstream Competition (with John Simpson), 9 **American Law and Economics Review** 370 (2007).

Government and the Reverse-Holdup Problem, 9 **Journal of Public Economic Theory** 221 (2007)

The Limitations of Buyer-Option Contracts in Solving the Hold-up Problem, 23 **Journal of Law, Economics, & Organization** 127 (2007)

Bayesian Jurors and the Limits to Deterrence (with Ezra Friedman), 22 **Journal of Law, Economics, & Organization** 70 (2006)

The Inefficiency of Contractually-Based Liability with Rational Consumers, 22 **Journal of Law, Economics, & Organization** 168 (2006)

The Effect of Exit on Entry Deterrence Strategies, 54 **Games and Economic Behavior** 226 (2006)

Managerial Incentives and the Price Effects of Mergers, 53 **Journal of Industrial Economics** 327 (2005)

Affirmative Action: More Efficient than Color Blindness, 10 **Texas Journal on Civil Liberties and Civil Rights** 183 (2005)

Comment on 'Aligning the Interests of Lawyers and Clients', 6 American Law and Economics Review 434 (2004)

A Model of Welfare-Reducing Settlement, 3 Contributions to Economic and Policy Analysis Article 4 (2004)

Innovation, Market Structure, and the Holdup Problem: Investment Incentives and Coordination, 22 International Journal of Industrial Organization 693 (2004)

The State of Critical Loss Analysis: A Reply to Scheffman and Simons (with Daniel O'Brien), 3 Antitrust Source (March 2004)

A Critical Analysis of Critical Loss Analysis (with Daniel O'Brien), 71 Antitrust Law Journal 161 (2003)

Justifying Imprisonment: On the Optimality of Excessively Costly Punishment, 5 American Law and Economics Review 377 (2003)

Damages for Breach of Contract: Should the Government Get Special Treatment?, 17 Journal of Law, Economics, & Organization 121 (2001)

WORKING PAPERS

A Simple Mechanism for Improving "Up or Down" Regulation, Revise and resubmit at Journal of Law, Economics, & Organization

Robust Exclusion Through Loyalty Discounts with Buyer Commitment (with Einer Elhauge)

Anti-Competitive Market Division Through Loyalty Discounts Without Buyer Commitment (with Einer Elhauge)

Approval Regulation with Learning (with Marco Ottaviani), awarded Robert F. Lanzillotti Prize for best paper in antitrust economics at the 2009 International Industrial Organization Conference

A New Angle on Rules versus Standards (with Ezra Friedman)

Economic epidemiology of avian influenza on smallholder poultry farms (with Maciej Boni, Alison Galvani, and Anup Malani)

Settlement and the Strict Liability-Negligence Comparison

Outside Options and the Misuse of the Nash Bargaining Solution in Law and Economics

Ideological Persuasion in the Media (with David Balan and Patrick DeGraba)

Exclusive Dealing and Entry, when Buyers Compete: Comment (with John Simpson)

The Economics of Constitutional Rights and Voting Rules

Unobservable Preparation and the Inevitable Risk of Conflict

PRESENTATIONS

Berkeley Law School, Law and Economics Seminar, February 2012
University of Florida, Antitrust Law and Economics Workshop, February 2012
USC Law School, Law and Economics Seminar, January 2012
Washington University, Conference on Theoretical Law and Economics, November 2011
UCLA Law School, Law and Economics Seminar, October 2011
Northwestern Law School, Law and Economics Seminar, October 2011
Stanford Law School, Law and Economics Lunch Seminar, July 2011
American Law and Economics Annual Meeting, May 2011
International Industrial Organization Conference, April 2011
Center for Competition Policy Annual Conference, Norwich, UK, June 2010
28th Seminar on the New Institutional Economics, Budapest, Hungary, June 2010
American Law and Economics Association Annual Meeting, May 2010
Swiss Federal Institute of Technology, Lecture Series in Law and Economics, March 2010
University of Texas, Law and Economics Seminar, October 2009
American Law and Economics Association Annual Meeting, May 2009
Duke University Game Theory and the Law Conference, May 2009
NBER Mid-Year Meeting, Law and Economics, March 2009
USC, Law School Seminar, October 2008
UCLA, Law and Economics Seminar, October 2008
Duke University, Law School Seminar, October 2008
University of Texas, Law School Seminar, September 2008
Symposium on Antitrust Economics and Competition Policy, Northwestern Univ, Sept 2008
American Law and Economics Association Annual Meeting, May 2008
New York University, Law and Economics Seminar, April 2008
Symposium on Insurance Markets and Regulation, Northwestern University, April 2008
Stanford University, Law and Economics Seminar, March 2008
Yale University, Law, Economics, and Organization Seminar, December 2007
Georgetown University, Law and Economics Seminar, November 2007
University of Virginia, Law and Economics Seminar, October 2007
NBER Summer Institute, Law and Economics, July 2007
Chicago-Kent, Law School Seminar, March 2007
NBER Mid-Year Meeting, Law and Economics, March 2007
University of Chicago, Law and Economics Seminar, January 2007
NBER Summer Institute (Discussant), Law and Economics, July 2006
American Law and Economics Association Annual Meeting, May 2006
University of Texas, Law, Economics and Business Seminar, January 2006
University of Maryland, IO/Theory workshop, October 2005
Northwestern University, Law School Seminar, August 2005
NBER Summer Institute, Law and Economics, July 2005
UBC Summer Conference on Industrial Organization, July 2005
American Law and Economics Association Annual Meeting, May 2005

University of Texas at Austin-ITAM Joint Conference, October 2004
IDEI/ZEI Conference on Regulation of Media Markets, October 2004
University of Texas, Department of Economics Seminar, September 2004
American Law and Economics Association Annual Meeting, May 2004
Stanford Conference on Media and Economic Performance, March 2004
Georgetown University, Department of Economics Seminar, February 2004
University of Southern California, Law School Seminar, January 2004
North American Winter Meeting of the Econometric Society, January 2004
University of Texas, Law School Seminar, November 2003
NBER Summer Institute, Law and Economics, August 2003
North American Summer Meeting of the Econometric Society, June 2003
International Industrial Organization Conference, April 2003.
University of Michigan Law & Economics Seminar, March 2003.
North American Summer Meeting of the Econometric Society, June 2002
American Law and Economics Association Annual Meeting, May 2002
Department of Justice, Economic Analysis Group Seminar, March 2002
ITAM, Business School Seminar, February 2002
Rutgers University, Department of Economics Seminar, November 2001
European Economic Association Annual Meeting, September 2001
North American Summer Meeting of the Econometric Society, June 2001
American Law and Economics Association Annual Meeting, May 2001
Federal Trade Commission, Bureau of Economics Seminar, May 2001
International Atlantic Economic Society Spring Meeting, March 2001
Georgetown University, Department of Economics Seminar, October 2000
Federal Trade Commission, Bureau of Economics Seminar, October 2000
Department of Justice, Economic Analysis Group Seminar, July 2000
Federal Trade Commission, Bureau of Economics Seminar, May 2000
Harvard University, Department of Economics Seminar, October 1998
Harvard University, Department of Economics Seminar, October 1997

PROFESSIONAL SERVICE

Board of Directors, American Law and Economics Association, 2010-2013

Program Committee, American Law and Economics Association 2012 Annual Meeting

Associate Editor *Journal of Industrial Economics*, September 2008 – Present

Associate Editor *International Review of Law and Economics*, February 2012 – Present

Referee for: *American Economic Journal Micro*, *American Economic Journal Public Policy*, *American Economic Review*, *American Law and Economics Review*, *American Political Science Review*, *Antitrust Law Journal*, *BE Journals in Economic Analysis and Policy*, *BE Journals in Theoretical Economics*, *Canadian Journal of Economics*, *Economic Journal*, *Economica*, *Economics*, *Games and Economic Behavior*, *International Journal of Economic Theory*, *International Journal of Industrial Organization*, *International Review of Law and Economics*, *Journal of Economic Behavior and Organization*, *Journal of Economics*, *Journal*

of Economics and Management Strategy, Journal of the European Economic Association, Journal of Industrial Economics, Journal of Institutional and Theoretical Economics, Journal of Labor Economics, Journal of Law and Economics, Journal of Law, Economics, and Organization, Journal of Legal Analysis, Journal of Legal Studies, Journal of Policy Analysis and Management, Journal of Political Economy, National Science Foundation, Oxford University Press, Quarterly Journal of Economics, Quarterly Review of Economics and Finance, RAND Journal of Economics, Review of Economics Studies, Review of Industrial Organization

“Excellence in Refereeing Award”—*American Economic Review*, 2007-2008.

TEACHING EXPERIENCE

UNIVERSITY OF TEXAS SCHOOL OF LAW

Contracts (1L), Spring 2010, Fall 2010, Fall 2011

Antitrust, Spring 2011, Spring 2012

Law and Economics Workshop, Fall 2010, Fall 2011

DUKE UNVERISTY SCHOOL OF LAW

Contracts (1L), Fall 2008

Antitrust, Spring 2009

NORTHWESTERN UNIVERSITY SCHOOL OF LAW

Contracts (1L), Fall 2006 and Fall 2007

Antitrust, Spring 2008

Law and Economics Workshop, Spring 2007 and Spring 2008

UNIVERSITY OF TEXAS AT AUSTIN

Law and Economics (advanced undergraduate), Fall 2004, Spring 2005, Fall 2005

Introduction to Microeconomics (undergraduate), Fall 2005

HARVARD UNIVERSITY—GRADUATE TEACHING FELLOW

Contract Theory (second year Ph.D. course), Fall 1997

Law and Economics (Sophomore Tutorial), Spring 1998