

**UNITED STATES OF AMERICA
BEFORE THE FEDERAL TRADE COMMISSION
OFFICE OF ADMINISTRATIVE LAW JUDGES**

In the Matter of

**1-800 Contacts, Inc.,
a corporation**

Docket No. 9372

Expert Report of Dr. William M. Landes

February 23, 2017

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I. Introduction

A. Qualifications

1. I, William M. Landes, am the Clifton R. Musser Professor Emeritus of Law and Economics at the University of Chicago Law School. I received a Ph.D. in Economics from Columbia University in 1966. Since that time I have taught economics on the faculties of Stanford University, Columbia University, the Graduate Center of the City University of New York, and the University of Chicago. I was a tenured professor at the University of Chicago Law School from 1974 to 2009, when I retired and became a senior lecturer. Since my retirement I have continued to teach a course in trademarks, a seminar on art law and a workshop in judicial behavior.

2. I have published extensively on a variety of topics related to the general subject of economic analysis of law, including intellectual property, litigation and settlements, torts, antitrust, legal procedure, art law and judicial behavior. In the area of intellectual property, I am a co-author with Richard A. Posner of a book entitled *The Economic Structure of Intellectual Property Law* (Harvard University Press, 2003), which contains two chapters on the economics of trademarks.

3. From 1991 to 2000, I served as an Editor of *The Journal of Legal Studies*, and from 1975 to 1992 I served as an Editor of *The Journal of Law and Economics*, both of which are leading academic journals in the field of law and economics. I have served on the editorial advisory board of numerous journals including the *Journal of Cultural Economics*, the *Journal of Empirical Legal Studies* and the *Journal of Legal Analysis*. I served as President of the American Association of Law and Economics in 1992-1993 and I was elected a fellow of the American Academy of Arts and Sciences in 2008.

4. In addition to my academic experience, I have been Chairman and Chairman Emeritus of Lexecon, an economics consulting firm that I co-founded in 1977 with Richard A. Posner and Andrew Rosenfield. Lexecon was later merged with the firm Compass to form Compass Lexecon. A copy of my curriculum vitae is attached as Appendix A to this report. A list of materials I have relied upon in preparing this report is attached as Appendix B.

5. Compass Lexecon bills my time at the rate of \$1500 per hour. Neither Compass Lexecon's compensation nor mine depend on the conclusions reached or the outcome of this case.

B. Assignment

6. Counsel for 1-800 Contacts, Inc. ("1-800 Contacts") has asked me to address the basic economics of trademarks, the economic benefits of trademarks to consumers and firms, and the role of trademark protection in preserving this benefit. Although I have taught the basic trademark course at the University of Chicago Law School for more than ten years and I co-taught antitrust for many years, I am not a lawyer and I am not expressing an opinion as to what the law is. My focus in this report is on the economic benefits and costs of trademarks and trademark protection.

7. My analysis is ongoing, and I reserve the right to supplement or modify my analysis in light of new materials that may become available to me including, but not limited to, other expert witness reports that had not been produced prior to the completion of my report, and supplemental responses to discovery.

C. Summary of Opinions

8. In this report, I conclude the following:

- Trademarks and service marks benefit both consumers and firms.¹ Trademarks provide information to consumers about relevant product and quality attributes that reduce their costs of searching for a given product or service. A firm's trademark also benefits the firm because the greater the information value embedded in the firm's trademark, the lower the consumer's search costs and the more the consumer is willing to pay for the product to compensate for his savings in search costs. In turn, firms that invest in developing and maintaining their marks have greater incentives to maintain the quality of their products in order to preserve the value of the mark.

¹ In this report I use the term trademarks to refer to both trademarks for goods and service marks for services. See Lanham Act, Sections 2 and 3 (§1052 & §1053).

- Trademark protection preserves the benefits that consumers and firms receive from trademarks. Inhibiting the ability of parties to settle trademark litigation could increase the costs of trademark protection and reduce the firm’s ability to protect its trademarks, which will ultimately reduce the firm’s incentives to create the consumer benefits associated with trademarks.
- The Federal Trade Commission’s economic experts fail to properly consider the importance (or benefits) of trademarks.

II. The Economics of Trademarks

9. In this section, I discuss the economics of trademarks and trademark protection. As I explain below, trademarks (including service marks) benefit both consumers and firms. Allowing firms to protect their trademarks helps preserve these benefits, including the incentives for firms to produce consistently high quality products and services that benefit consumers.

A. Trademarks Benefit Consumers By Reducing Search Costs

1. Economic Theory of Consumer Benefits

10. A trademark or service mark is a word, symbol, name, phrase or other signifier adopted by a firm to identify and distinguish its goods or services from goods and services sold by others.² A trademark provides informational benefits to consumers about relevant product and quality attributes that reduce their cost of searching.^{3,4}

² Lanham Act, Section 45 (§1127)

³ For a thorough discussion of the economics of trademarks see Landes, William M., and Richard A. Posner. “Trademark law: an economic perspective.” *The Journal of Law & Economics* 30.2 (1987): 265-309 (“Landes and Posner (1987)”) and William M. Landes and Richard A. Posner, *The Economic Structure of Intellectual Property Law*. Harvard University Press, 2003 at Chapter 7 (“Landes and Posner (2003)”).

⁴ While the economic literature on trademarks incorporates the concept of search costs and the value of time, these concepts are not unique to trademarks and are widely used throughout economic theory. For example, see Stigler, George J. “The Economics of Information.” *The Journal of Political Economy* (1961): 213-225 for the seminal work on search costs and Becker, Gary S. “A Theory of the Allocation of Time.” *The Economic Journal* (1965): 493-517 on the value and cost of time.

11. Consider the following model on the benefits of trademarks. Let the consumer's full price (π) for a good or service equal:⁵

$$\pi = P + H(T, Y) \quad (1)$$

12. The full price (π) equals the sum of the money price (P) and the monetary equivalent of the search costs (H) the consumer incurs in obtaining information about the relevant attributes of the good (including where to buy the good or service, its price, reliability, product warranties and so forth). Assume that H is a function of the product's trademark (T) and other characteristics (Y) such as the consumer's cost of time and the technology available to search for the product or service. A firm can produce information about its product or service through its investment in T, the firm's trademark (or, more accurately, an index of the strength of the firm's trademark where the greater is T, the stronger is the firm's trademark). T is negatively correlated with H and π : an increase in T increases the information about the product to the consumer, reduces search costs (H), and reduces the full price or cost incurred by the consumer (π).⁶ An increase in T, for example, could (1) lower the consumer's cost of identifying the source of the good or service; (2) provide added information about the product itself; (3) or both.

13. This model illustrates that the value of a trademark to consumers is a positive function of the information it provides consumers and its ability to reduce search costs. A simple numerical example illustrates this point. Suppose products A and B are substitutable for each other and have the same money price P equal to \$2. However, the search costs (H) incurred by a consumer to find and identify the important characteristics of A, such as what the good or service does, how it performs, and its quality, also is \$2. In contrast, the firm that produces B has a stronger trademark than the firm that produces A, which reduces the consumer's search cost of identifying and learning about the product qualities of B to \$1. Even though the money price of A and B is the same (= \$2), consumers will choose product B over product A because its full price is lower (\$3 as compared to \$4).

⁵ See Landes and Posner (1987) for the original discussion of this economic model and the theoretical implications.

⁶ More formally, the model assumes that $\partial H / \partial T < 0$.

2. Benefits of Retail Trademarks or Service Marks

14. A retailer's mark (or equivalently its brand name) also provides benefits to consumers in reducing search costs (H in equation (1) above). Consumers generally search across different retailers for the lowest prices and best services which include such things as available inventory, quick delivery, shipping costs, knowledgeable sales personnel, a pleasant shopping experience, the ease of returning merchandise, and follow-on services (e.g. contacting customers when it is time to make another purchase, as 1-800 Contacts does when it estimates that a consumer's supply is running low⁷).

15. A retailer's brand name reduces the consumer's costs of searching in two important ways. First, it identifies the particular good the consumer wants to purchase or the retailer he wants to visit. Second, it identifies the retailer that provides the mix of services the consumer desires both before and after purchasing the good. The retailer's brand name is a shorthand way of providing this information because it enables the consumer to use his prior experience or information acquired from others to distinguish a particular retailer from other retailers without conducting an exhaustive examination of each retailer and the goods and services each provides.

16. In this matter, the trademark at issue ("1-800 Contacts") is the service mark for a retail seller of contact lenses. The economics of trademarks indicates that the service mark "1-800 Contacts" signifies a particular retail seller and distinguishes it from others, which makes it easier and more convenient (lowers search costs H) for a consumer who had a good experience purchasing contact lenses from 1-800 Contacts to locate the firm again and make a repeat purchase. The "1-800 Contacts" mark also lowers the search cost for new customers who may have been referred to 1-800 Contacts by other satisfied consumers.

17. In the model set forth above, the investment 1-800 Contacts makes in developing and maintaining its trademark (T) lowers search costs (H) for consumers. Other things the same, an increase in T lowers the full price (π) the consumer incurs when he buys contact lenses from 1-800 Contacts. If other retailers of contact lenses identified themselves as 1-800 Contacts, used confusingly similar marks to 1-800 Contacts, or used the 1-800 Contacts mark in a confusing way, then search costs (H) would increase because each consumer would have to spend more

⁷ 1-800F_00091871.

time and effort sorting through the various retailers in order to figure out which of the retailers using similar marks actually is the 1-800 Contacts firm that is the party to this case. If all retailers used identical or substantially similar marks to 1-800 Contacts, then the “1-800 Contacts” mark would lose its distinctiveness (so T would not reduce H at all) and would not provide the information benefits to consumers that underlie the economic basis for trademark protection.

3. Experience Goods and Search Goods

18. Trademarks tend to be more valuable for so-called experience goods or services than for so-called search goods or services (or, more accurately, for experience attributes than search attributes of goods or services). I define these two types of goods more explicitly below.

19. Experience goods and services are those for which the important attributes of the good or service are not easily observable prior to purchase (e.g., the taste and quality of a canned food item or the quality of customer service in connection with an exchange, return or missing shipment).⁸ In equation (1) above, consumers’ lack of information about experience goods and services suggests that search costs (H) for such goods and services are higher than for “search” goods and services. This, in turn, implies that trademarks tend to have significant potential to reduce search costs (H) for experience goods and services.

20. Purchasing contact lenses online is an experience service in the sense that a number of important attributes (e.g. whether the product matches its online description, whether the delivery is timely, or whether problems with the product can be easily resolved) cannot be determined before actually purchasing and wearing the contacts.⁹ Now suppose that a previous purchaser had a positive experience purchasing contact lenses from 1-800 Contacts and wants to purchase from 1-800 Contacts again. If other online providers of contact lenses used

⁸ Carlton, Dennis W., and Jeffrey M. Perloff. *Modern Industrial Organization 4th Edition*. (2005) (“Carlton and Perloff”), p. 476.

⁹ It is worth noting that the retail sales of medical devices such as contact lenses have particularly strong experience attributes because, as I understand, consumers are likely to take great care in selecting the source of a medical device for their eyes, and want assurance that they can trust their supplier and will be able to feel safe and confident about their purchase. (See Deposition of Amy Guymon Larson, January 19, 2017 (“Larson Deposition”), at 65:11 – 18 and Expert Report of Ronald C. Goodstein, February 23, 2017, at ¶37). Accordingly, if one has had a good experience with an online seller of contact lenses, the seller’s service mark is likely to be particularly valuable because it enables the consumer to make repeat purchases with minimal search costs.

confusingly similar marks to 1-800 Contacts, the consumer would have to spend time and effort to find the retailer he purchased from in the past. The distinctive 1-800 Contacts mark, however, tells the consumer that he does not have to take the time to investigate the attributes of each retailer but instead can rely on the 1-800 Contacts' mark to indicate that he is buying from the same retailer he purchased from in the past and can expect the same favorable experience with his next purchase of contact lenses as he had with his prior purchase or as a friend or relative or reviewer who recommended 1-800 Contacts had.

21. In contrast to experience goods or services, the important attributes of search goods or services are easily available at negligible cost prior to purchase.¹⁰ In terms of equation (1), search costs (H) for such goods and services tend to be lower than for experience goods, meaning that increasing T will have a smaller impact on lowering H. That is, where consumers can learn about the important attributes of products and services before purchasing them at a negligible expenditure of time, effort and money, a trademark is less valuable in providing information and lowering search costs.

22. A retail store combines both important search and experience attributes. Some attributes are not easily observable prior to making a purchase (e.g., the store's actual return policy, the likelihood that the goods on the shelf are the latest model, the warranty coverage on the goods and even the possibility that goods purchased are defective). Other characteristics are readily observable prior to a transaction simply by visiting the store, e.g. prices, selection of available products and brands, helpfulness of staff, and the checkout process.

23. In contrast, a retailer with an online or telephone-only service such as 1-800 Contacts is less able to provide information about its goods and services that is more readily observable prior to the purchase from a brick-and-mortar retailer. The inability of consumers to walk in and shop at a 1-800 Contacts store implies that the value of its service mark will tend to be higher compared to stores with a physical location because search costs (H) are higher to begin with. As such, a service mark of an online retailer such as 1-800 Contacts will have more

¹⁰ Carlton and Perloff, pp. 475-476.

potential to reduce search costs by signifying attributes of quality and reliability that are otherwise unobservable.¹¹

4. Repeat Customers

24. The economic analysis of trademarks also implies that trademarks are particularly valuable for firms that rely primarily on repeat customers. A consumer that makes a one-time only purchase of a good tends to derive less value from a mark's reduction in search costs because the consumer is unlikely to take advantage of the reduction to find the good or retailer again in the near future. This in turn reduces the information value of the trademark to the firm selling these goods (holding all other benefits constant). The more common it is for consumers to make repeat purchases of the same good or return to a retailer, the more value the trademark tends to be in reducing search costs. Advertising and promoting the trademarked good or retailer not only helps the consumer find the good or retailer in the first place, but also reminds consumers of their positive experience with the good or retailer and increases the likelihood that they will continue to make purchases of that good or from that retailer in the future.

25. Sales to repeat customers are a significant portion of 1-800 Contacts' sales. For example, in 2015 1-800 Contacts estimated that customers ordered, on average, 2.1 times per year¹² and that over 50% of first-time customers reorder within two years.¹³ Table 1 below reports the percentage of recent 1-800 Contacts' revenue that is derived from repeat customers. In the past three years, 1-800 Contacts earned over 80% of revenue from repeat customers both on the Internet and over the phone. Thus, the foregoing economic principles would suggest that 1-800 Contact's service mark has significant value.

¹¹ $\partial H / \partial T$ is large

¹² 1-800F_00056231, at slide 26.

¹³ 1-800F_00047111, at slide 34.

TABLE 1

Percentage of 1-800 Contacts Revenue From Repeat Customers

Channel	Year	New Revenue (\$M)	Repeat Revenue (\$M)	Total Revenue (\$M)	% Repeat Customer
Phone	2013	\$10.70	\$116.87	\$127.56	92%
	2014	\$10.49	\$112.29	\$122.77	91%
	2015	\$10.58	\$117.56	\$128.14	92%
Phone Total		\$31.76	\$346.71	\$378.47	92%
Web	2013	\$65.13	\$312.47	\$377.60	83%
	2014	\$73.96	\$326.30	\$400.26	82%
	2015	\$79.39	\$312.70	\$392.09	80%
Web Total		\$218.48	\$951.47	\$1,169.95	81%
Total	2013	\$75.83	\$429.33	\$505.16	85%
	2014	\$84.45	\$438.59	\$523.03	84%
	2015	\$89.97	\$430.26	\$520.23	83%
Grand Total		\$250.25	\$1,298.18	\$1,548.43	84%

Source: 1-800F_00096387.XLSX; "rollup.web&phone" tab

Note: Total revenue calculated as the sum of new and repeat revenue.

B. Trademarks Provide Value to Firms

26. A mark is a valuable asset of a firm as well as a source of benefit to consumers. For example, Apple has been recently cited as the most valuable global brand with an estimated brand value of over \$178 billion followed by Google with an estimated brand value of \$133 billion.¹⁴ 1-800 Contacts estimates that it has the highest brand awareness of any contact retailer and 20 times the unaided brand recognition of its next online competitor.¹⁵ 1-800 Contacts has also earned high net promoter scores, which measure the proportion of customers who would recommend a firm.¹⁶

27. A trademark's value to a firm is a function of the information it provides consumers and its ability to reduce search costs. Consider again equation (1) but assume now that products A and B each provide value to consumers of \$4, meaning that consumers will be willing to incur costs of up to \$4 for each product. Recall that search costs (H) are \$2 for A and \$1 for B because the firm that produces B has a strong mark that reduces search costs for consumers. In

¹⁴ <http://interbrand.com/best-brands/best-global-brands/2016/ranking/>

¹⁵ 1-800F_00056231, at slides 4 and 10.

¹⁶ See 1-800F_00032427 at slide 34 and 1-800F_00056231 at slide 4.

this example, consumers are willing to pay a nominal price of up to \$3 for product B but only \$2 for product A because product B's trademark is more valuable in lowering search costs. In other words, the firm that produces B is able to charge a higher money price for its product than can firm A while remaining competitive because its trademark is more valuable in reducing search costs. Likewise, the money price of product B (P) is a greater proportion of its full price (π) than it is for product A (75 percent compared to 50 percent).

28. Accordingly, the greater the information value of a firm's trademark or service mark, the lower the search costs the consumer incurs and the greater the monetary price the consumer is willing to pay.¹⁷ In this way, trademarks enable firms to charge a "premium," which gives them an incentive to invest in and develop their trademarks. As explained below, these investments ultimately benefit consumers not only by reducing search costs but providing incentives for firms to produce products of consistently high quality.¹⁸

C. Trademarks Promote Incentives to Produce High and Consistent Quality Products and Services that Benefit Consumers

29. The economics of trademark law indicate that firms that produce products of consistently high quality are best placed to capture the trademark "premium" associated with a trademark's reduction in search costs. This is because inconsistency and poor quality undermine the predictability necessary to lower search costs. Accordingly, trademarks benefit consumers not only by reducing search costs but by giving firms an incentive to provide products and services that benefit consumers.¹⁹

30. When a firm produces a product or provides a service or retail experience of uneven and often poor quality or consistency, consumers cannot rely as much on their prior experience to provide information on their future purchases.²⁰ Instead, the consumer will have to incur added search costs to investigate the product, service or retailer's features before making another purchase despite the existence of an easily identifiable trademark or service mark.

¹⁷ Landes and Posner (2003), pp. 176.

¹⁸ Landes and Posner (2003), pp. 178-179.

¹⁹ Landes and Posner (2003), p. 168.

²⁰ Although the mark may provide information on the average quality of the product, the consumer will have to incur added search costs to discover its actual quality. And this may not be feasible without actually buying the product because prior experience will be a poor predictor of actual quality.

31. For example, if some McDonald's franchises sold cheeseburgers and fries and others sold burritos and beans, the McDonald's mark would not be very useful to consumers in predicting what to expect when deciding to eat at McDonald's. Similarly, if a firm produces products or services that vary widely in quality, consumers cannot rely on the firm's trademark and prior experience to provide information about how the product or service connoted by the mark will perform in the future. If a consumer has great food at McDonald's franchise A and undercooked food at McDonald's franchise B, the McDonald's trademark is less predictive of the quality of food when the consumer is traveling and comes across McDonald's franchise C.

32. Thus, where firms provide products and services that lack uniform attributes or quality, a trademark will have less impact on reducing consumer search costs. This, in turn, undermines the consumer's willingness to pay a premium for the trademarked product or service and to continue purchasing the product. Thus, in order to fully realize the value of its investments in its trademark, a firm has a strong incentive to provide products and services of consistent quality that benefit consumers.

33. Further, a firm that supplies products or services of poor and uneven quality may actually suffer from the information benefits that a trademark provides because it would enable consumers to more easily identify and *reject* the firm's product or service. It follows that, in order to realize the benefits of investments in a trademark, firms have significant incentives to continue to produce consistently high quality products and services to prevent a trademark's signifying effect from working against them.

34. Consistent with these economic principles, 1-800 Contacts incurs significant ongoing costs to maintain and promote its trademark, including recurring annual advertising costs of over \$30 million in recent years.²¹ As of 2011, 1-800 Contacts had incurred cumulative gross advertising expenditures of \$356 million.²² I understand that 1-800 Contacts also believes it is the only online seller of contact lenses that focuses its advertising on TV to promote its brand.²³

35. In order to recoup the benefits of these investments in its trademark, 1-800 Contacts expends significant efforts to maintain the quality and consistency of its services, which include

²¹ 1-800F_00000059.xlsx.

²² 1-800F_00032427, at slide 25.

²³ 1-800F_00056231, at slide 9.

offering free returns including any unused lenses at any time, 24/7 customer service and a guarantee that a person answers every customer call, free shipping and delivery, replacement of torn lenses, the largest inventory of contacts, and a triple order verification process to ensure orders are correct.²⁴ I understand that other online retailers of contact lenses do not provide many of these services at all or to the same degree.²⁵ It follows from the economics of trademarks that 1-800 Contacts makes substantial investments in its brand and provides services attributes for which consumers are willing to pay.

D. Trademarks Limit Competition Less Than Other Forms of Intellectual Property

36. It is worth noting that an important difference between trademark protection and other forms of intellectual or intangible property protection, such as patents and copyrights, is that trademarks protect information about products but not the products themselves. Unlike a patent or copyright, a trademark does not prevent competitors from producing similar or even identical products provided they identify their product with a non-infringing mark.²⁶ Thus, trademark protection for the “1-800 Contacts” mark does not exclude other online or telephone-only sellers of contact lenses and related services from providing the exact same products and the exact same level of services provided by 1-800 Contacts, but rather only prevents these sellers from presenting ads for their services in a way that are likely to create confusion with the “1-800 Contacts” service mark.

E. Trademark Infringement Harms Consumers and Producers

37. The benefits of a trademark – reducing search costs and incentivizing firms to provide products and services of consistently high quality – can be compromised if other firms use the mark in confusingly similar ways. This conduct reduces the information associated with the first firm’s mark, thereby raising consumer search costs. This, in turn, reduces the money price

²⁴ See, e.g. 1-800F_00091871; 1-800F_00056231, at slide 11; and Larson Deposition, at 66:3 – 68:17.

²⁵ See Larson Deposition, at 73:20 – 75:16 and Deposition of Eric Holbrook, January 12, 2017, at 139:14 – 140:20.

²⁶ I put to one side the question of trademark protection for trade dress that includes physical attributes of the product. Such protection only covers non-functional features of the product. The non-functionality requirement means that competitors can produce equivalent products in terms of cost and quality without using the first firm’s trade dress. Thus, this discussion would substitute “equivalent” for “even identical” when the question involves trade dress.

P in equation (1) that consumers are willing to pay for the product (because of the increase in H) and thereby reduces the incentive of the firm to invest in developing a strong trademark in the first place and to produce goods and services of uniform high quality. These harms arise from infringement that is likely to cause consumer confusion. I also discuss in this section another type of trademark harm called dilution that does not involve confusion.²⁷

1. Confusion

38. Trademark infringement occurs when one firm uses another firm's trademark in a way that is likely to cause consumer confusion. Confusion can take several forms. One is source confusion where consumers believe that the trademark owner is the source of a good or service offered by another firm using the confusing trademark. For example, source confusion would occur if a consumer searching for the trademark "1-800 Contacts" sees an advertisement for another firm's website on the search results page and concludes that the other online retailer is owned and run by 1-800 Contacts.

39. Another type of confusion that is close to source confusion relates to sponsorship, affiliation or approval confusion, which occurs when the consumer believes that the seller of a product using the trademark is somehow connected to the original trademark owner. For example, this kind of confusion could occur if a consumer searching for the trademark "1-800 Contacts" sees an advertisement for another firm's website on the search results page and concludes that the other firm is affiliated with or connected to 1-800 Contacts. Even if the consumer eventually recognizes that there is no connection between 1-800 Contacts and the other firm—perhaps after visiting the other firm's website—the consumer's initial confusion increases the time it takes the consumer to find the 1-800 Contacts website; that is, the source confusion raises consumer search costs. This kind of confusion is known as "initial interest confusion". While the cost of such confusion in the form of higher search costs may be small for any individual consumer, it could represent a substantial overall cost (and deadweight loss to consumers) when aggregated across thousands of consumers that search online for contact lenses.

²⁷ See Lanham Act, Sections 32 (§1114); 43(a)(1)(A) (§1125); and 43(c) (§1125) for the statutory provisions on confusion and dilution.

40. Trademark confusion harms consumers in several ways. Confusion negates the trademark's effect of reducing search costs by limiting the extent to which consumers can rely on the trademark to correctly distinguish one seller from others. By increasing consumer search costs, confusion reduces the value of the mark to consumers and the monetary premium they are willing to pay for the trademarked product. This undermines the trademark owner's incentive to invest in the mark and produce goods or services of consistently high quality that benefit consumers.

41. Infringers have a strong economic incentive to use a mark belonging to a firm that has a reputation for producing a consistently high quality product or service. An infringer may be able to obtain the higher price that consumers are willing to pay without incurring the expense of building awareness of the mark and producing products or services of consistently high quality. Further, if consumers have a negative experience with the infringer's product, they are likely to attribute it to the trademark owner. Confusion can reverse the positive signaling effect of the trademark for its owner, undermining the firm's ability to capture a trademark premium and thereby reducing its incentive to continue to provide a high-quality product or service.

2. Dilution

42. Trademark dilution reduces the value of a famous trademark even when consumers correctly perceive that there is no connection between the two firms using similar or even identical trademarks. One version of such harm is called tarnishment and the other blurring.

43. Tarnishment occurs when another firm's use of a trademark sullies the trademark owner's reputation associated with his trademark. For example, suppose firm A has a famous trademark attached to family friendly products or services and firm B opens a theatre with the same name that shows pornographic movies. Even though consumers know there is no connection between the two firms, the association of the trademark with a product that many consumers find objectionable undermines the positive associations that consumers have with the famous mark. In other words, the reputational "capital" that the initial trademark holder has built up over the years through advertising, providing high quality service, and selling high quality family-friendly goods is diminished.

44. The harm from blurring weakens a famous trademark's signaling effect that connects the mark to its owner. Imagine a professional networking website that uses the name 1-800 Contacts, in part, to signal to potential users that this website will help them meet new professional contacts. Initially, there may be confusion over whether the website is affiliated in some way with the seller of contact lenses. In the end, consumers realize there is no connection between the two firms. Still, blurring leads to higher search costs since it takes the consumer a little extra time to realize that the two firms using the identical or substantially similar marks are not connected. This undermines the trademark's value in providing informational benefits, raises search costs, reduces consumers' willingness to pay for the product and reduces the incentives of the owner of the famous mark to invest in high-quality products and services.

45. Although the added search costs may be negligible if one firm blurs another firm's famous mark, the increase in search costs will tend to be greater, the greater the number of firms that blur the famous mark. Conceivably, the once famous trademark could eventually lose its distinctiveness, as consumers no longer associate the mark with the original firm's product or service but instead with many unrelated goods and services. And without distinctiveness, there is no trademark protection.

F. Making Trademark Settlements More Difficult Will Undermine Consumer Benefits from Trademarks

46. I understand that the Federal Trade Commission (FTC) and its economic experts have argued that the settlement agreements at issue in this case harm consumers and should be considered presumptively unlawful. In my opinion, the economics of trademark law and litigation indicate that this antitrust rule would make it more costly to enforce one's trademark and ultimately undermine the benefits of trademarks to consumers and firms.

47. Settlements are generally efficient because they reduce litigation costs. Indeed, the basic economic theory of litigation is that parties will settle when their expected costs of going to trial compared to the costs of settling exceed the difference between the plaintiff and defendant's estimate of the expected returns from going to trial.²⁸

²⁸ See, e.g., Landes, William M. "An Empirical Analysis of Intellectual Property Litigation: Some Preliminary Results, An." *Hous. L. Rev.* 41 (2004): 749 – 776 for a discussion on the economic theory of

48. Limiting a trademark owner’s ability to settle trademark litigation raises the costs of trademark protection. For a trademark owner that cannot settle trademark litigation or cannot do so without risking antitrust liability, the expected costs of trademark enforcement are more likely to reflect the full costs of litigating the case to trial as well as the expected costs of any antitrust liability. This would create an effective “tax” on trademark enforcement that would reduce the trademark owner’s willingness to enforce its trademark. By reducing the extent of trademark enforcement, the antitrust rule will reduce the value of the trademark. That, in turn, will reduce the trademark owner’s incentive to invest in the trademark in the first place, which will reduce the extent to which the mark reduces search costs for consumers and, according to the economic principles set forth above, reduce firms’ incentives to maintain a high quality of their products and services that benefit consumers.

49. Notably, because, as I understand, the antitrust and trademark principles will apply beyond the scope of the advertisements and settlements at issue in this case, increasing the costs of trademark protection by making settlements more difficult will tend to reduce the benefits of trademark protection not only for 1-800 Contacts but for other firms as well. These consequences could be particularly harmful given that I understand from other experts in this case that Internet search practices have been evolving.²⁹

III. **Plaintiff’s Experts Fail to Properly Consider the Benefit of Trademarks**

50. The FTC has submitted three expert reports. In this section, I explain that the reports submitted by Dr. Susan Athey and Dr. David Evans fail to properly consider the benefits of trademarks and the role of the settlements in preserving those benefits.

A. Dr. Athey Overlooks the Benefits of Trademarks

51. Dr. Athey’s report assumes that search costs are higher, less information is available to consumers, and prices of contact lenses are higher as a result of the settlements at issue in this proceeding.³⁰ Specifically she notes that “1-800 Contacts charges a price premium to

settlements and the incentive to settle when litigations costs are high.

²⁹ See, e.g. Expert Report of Dr. Anindya Ghose, February 23, 2017, at ¶¶22-23 and ¶¶34-39 and Expert Report of Howard S. Hogan, February 23, 2017, at ¶¶87-91.

³⁰ Expert Report of Dr. Susan Athey, February 6th, 2017 (“Athey Report”), ¶65 and ¶108.

consumers”³¹ and claims this pricing premium is a result of “online search costs and the low level of consumer information on prices in the online contact lens market”.³² Thus, she concludes that the settlements entered into by 1-800 Contacts and its competitors effectively raise consumer prices. To reach this conclusion, Dr. Athey argues that a difference in services alone cannot explain the price differential and, thus, that 1-800 Contacts’ price premium must be a result of incomplete information.³³

52. Dr. Athey’s conclusions, however, ignore the role of trademarks and the value of trademarks to consumers in reducing search costs. As explained above, a firm operating in a competitive market may still be able to charge a higher money price (P) for its product if its trademark (T) reduces the search costs (H) to consumers, and thus the full price (π) of its product will be still equal to that of its rivals’ products. Specifically, while Dr. Athey has argued that the price premium she calculates is a due to the presence of search costs and a low level of consumer information, this premium is entirely consistent with the positive value consumers receive from the 1-800 Contacts’ trademark.

53. In an Internet context that Dr. Athey admits involves search costs, a trademark such as the 1-800 Contacts trademark can be valuable to consumers as it reduces these search costs. So even if, as Dr. Athey contends, 1-800 Contacts offers the exact same services as all of its online competitors, a positive price premium as measured by Dr. Athey would be entirely consistent with a competitive market in which 1-800 Contacts has a stronger trademark than its rivals (as shown by the simple example above). In fact, there is evidence that 1-800 Contacts has greater brand awareness than its competitors.³⁴ The fact that consumers incur lower search costs because of the strength of 1-800 Contacts’ trademark is consistent with a positive price premium as measured by Dr. Athey. Further, the fact that the market for contact lenses is competitive is not inconsistent with this measured price premium, but rather is, again, consistent with the existence of a trademark that is valuable to consumers. Dr. Athey does not consider this explanation or any benefit from the settlements in preserving these consumer benefits from the 1-800 Contacts’ trademark by protecting that trademark.

³¹ Athey Report, ¶32.

³² Athey Report, ¶51.

³³ Athey Report, ¶51.

³⁴ 1-800F_00056231, at slides 4 and 10.

B. Dr. Evans Dismisses the Benefits of Trademarks

54. Unlike Dr. Athey, Dr. Evans acknowledges the importance and value of trademarks but dismisses their relevance in analyzing the settlements in this proceeding.³⁵ Dr. Evans notes that:

Trademarks help companies convey information to consumers about themselves and their products. They enable companies, for example, to use a brand name to signal to consumers that the company provides a high quality product or offers particular attributes that consumers care about. Protecting trademark rights encourages investment in this sort of brand-building activity, which in turn generates valuable market information, promotes competition and ultimately benefits consumers. Moreover, trademark policy prevents the spread of misinformation as when a company claims falsely that it produces the same brand of a competitor or tries to confuse consumers into thinking they do by using similar words.³⁶

Dr. Evans also acknowledges, as I explained above, that trademarks inhibit competition less than other forms of intellectual property: “A trademark isn’t like a song where the artist can demand a royalty from anyone who uses it.”³⁷ Dr. Evans notes, consistent with my opinions in this report, that it “would harm competition if companies like Pepsi couldn’t protect their brand names from encroachment by competitors.”³⁸

55. Dr. Evans nevertheless concludes that there are “no procompetitive benefits” from the settlements.³⁹ Dr. Evans claims that restricting the ability to display ads in response to a search for a competitor’s trademark is no different than not allowing a competitor to choose a physical location near a rival or requiring exclusivity from a wholesale distributor so that it does not distribute a rival product.⁴⁰ However, neither of these examples is relevant because they do not involve any potential consumer confusion, as is the case with the behavior at issue in this proceeding. Locating in proximity to a rival or asking a distributor to represent a rival product does not require the use of a competitor’s trademark to divert customers that were initially

³⁵ I note that Dr. Evans cites my work regarding the economics of trademarks in which I outlined the principles set forth elsewhere in this report (Expert Report of David S. Evans, February 6th, 2017 (“Evans Report”), fn. 322).

³⁶ Evans Report, ¶292.

³⁷ Evans Report ¶ 294.

³⁸ Evans Report ¶ 296.

³⁹ Evans Report, ¶301.

⁴⁰ Evans Report, ¶297.

looking for the original competitor's product.⁴¹ Accordingly, Dr. Evans' conclusion that the settlements have no procompetitive value appears to be based on his assumption that the advertisements prohibited by the settlements would not have caused consumer confusion and a legal conclusion that the settlements "are not necessary to prevent rivals from infringing on 1-800 Contacts keywords in the ad texts."⁴² That is not an issue on which I have opined, but I do not see any evidence in Dr. Evans' report for that premise.

IV. Conclusion

56. Trademarks and service marks benefit both consumers and firms. Trademarks provide information to consumers about relevant product and quality attributes that reduce their cost of searching for a given product or service. These marks in turn benefit firms because the greater the information value embedded in a firm's trademark, the lower is the consumer's search costs implying the consumer is willing to pay more for the product to compensate for this savings in search costs. Only firms that maintain the consistency and quality of their products and services can preserve the value of the mark and command a price premium, meaning that trademarks create incentives for firms to create products and services that benefit consumers. Trademark protection preserves these benefits that consumers and firms receive from trademarks. Restricting trademark owners' ability to settle trademark cases will increase the costs and lower the frequency of trademark enforcement, thereby reducing trademark protection and, in turn, the value of the trademarks that creates incentives for firms to compete in ways that benefit consumers.

Pursuant to 28 U.S.C. § 1746, I state, under penalty of perjury, that the foregoing is true and correct to the best of my knowledge, information, and belief. Executed on this 23rd day of February, 2017, in Chicago, Illinois.



William M. Landes

⁴¹ I note that, similar to trademark protection, it is well established in the economic literature that exclusive dealing restrictions are not necessarily anticompetitive (see, e.g. Carlton and Perloff, p. 668) and serve as another example of when certain restrictions actually benefit consumers.

⁴² Evans Report, ¶34.

Appendix A: Curriculum Vitae of Dr. William M. Landes

WILLIAM M. LANDES

FEBRUARY 2017

Clifton R. Musser Professor of Law & Economics, Emeritus
Senior Lecturer (2008-2016)
The University of Chicago

ADDRESS

The University of Chicago
The Law School
1111 East 60th Street
Chicago, Illinois 60637
(773) 702-9606
w-landes@uchicago.edu

Compass Lexecon
332 S. Michigan Ave.
Chicago, Illinois 60604
(312) 322-0219

EDUCATION

Ph.D., COLUMBIA UNIVERSITY: Economics, 1966

B.A., COLUMBIA UNIVERSITY: 1960

ACADEMIC EMPLOYMENT

THE UNIVERSITY OF CHICAGO, The Law School: Clifton R. Musser Professor of Law & Economics Emeritus since 4/09; Clifton R. Musser Professor of Law & Economics (7/92-3/09); Clifton R. Musser Professor of Economics (7/80-7/92); Professor of Economics (1/74-6/80).

FORDHAM UNIVERSITY, School of Law: 19967 Bacon-Kilkenny Chair of Law for a Distinguished Visiting Professor, 8/96–12/96.

NATIONAL BUREAU OF ECONOMIC RESEARCH, INC.: Research Staff (1973-1979); Research Associate (1969-1973); Research Fellow (1968-1969); Research Assistant (1962 - 1963).

CITY UNIVERSITY OF NEW YORK, Graduate Center (1972 - 1974): Associate Professor of Economics.

COLUMBIA UNIVERSITY (1969 - 1972): Associate Professor of Economics.

THE UNIVERSITY OF CHICAGO (1966 - 1969): Assistant Professor of Economics.

STANFORD UNIVERSITY (1965 - 1966): Assistant Professor of Economics

AREAS OF SPECIALIZATION

Economic Analysis of Law
Intellectual Property
Art Law
Industrial Organization
Antitrust

ACADEMIC HONORS AND PROFESSIONAL AFFILIATIONS

President's Fellowship, Columbia University, 1962-1963.
Ford Foundation Doctoral Dissertation Fellowship, 1963-1964.
I.B.M. Watson Fellowship, 1964-1965.
Ansley Award Nomination, Economics Department, Columbia University, 1966.
Member, American Economic Association
Editorial Board, *Journal of Cultural Economics*, 2003-
Editor, *The Journal of Law and Economics*, 1975-1991,
The Journal of Legal Studies, 1991-2000
Member, Panel on Legislative Impact on the Courts, National
Academy of Sciences, 1977-1979
Member, Mont Pelerin Society
Research Advisory Committee, U.S. Sentencing Commission, 1986-88
Adviser, Restatement of the Law, Third, Unfair Competition
Council of Economic Advisers, American Enterprise Institute
Board of Editors, Intellectual Property Fraud Reporter
Member, Scientific Committee of A Bibliography of Law and Economics with
abstracts of the European, non-English literature, Ruiksuniversiteit-Gent, Belgium, 1990
Member, Committee of Patronage of the Erasmus Project in Law and Economics,
Ruiksuniversiteit-Gent, Belgium, 1990
Member, Academic Advisory Council, The Locke Institute, 1990-
Member, American Law and Economics Association,
Executive Vice President, 1991 - 1992
President, 1992 - 1993
Advisory Board, Law and Economics Abstracts, 1996 –
Editorial Board, *Journal of Cultural Economics*, 2004 –
Editorial Advisory Board, *Journal of Empirical Legal Studies*, 2004 –
Fellow, American Academy of Arts and Sciences, 2008

PUBLICATIONS

BOOKS AND MONOGRAPHS

Essays in the Economics of Crime and Punishment, edited with Gary S. Becker,
National Bureau of Economic Research (1974).

The Economic Structure of Tort Law, co-authored with Richard A. Posner, Harvard Univ. Press (1987).

The Economic Structure of Intellectual Property Law, co-authored with Richard A. Posner, Harvard Univ. Press (2003).

The Behavior of Federal Judges, co-authored with Lee Epstein and Richard A. Posner, Harvard Univ. Press (2013).

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“An Economic Analysis of the Courts,” 14 *Journal of Law and Economics* (April 1971). Reprinted in Becker and Landes, Essays in the Economics of Crime and Punishment (1974).

“Law and Economics,” National Bureau of Economic Research--51st Annual Report (September 1971).

“Compulsory Schooling Legislation: An Economic Analysis of Law and Social Change in the Nineteenth Century,” *Journal of Economic History* (March 1972), co-authored with Lewis Solomon.

“The Bail System: An Economic Approach,” *Journal of Legal Studies* (January 1973). Reprinted in Becker and Landes, Essays in the Economics of Crime and Punishment (1974).

“Foreign Criminal Procedure: A Comment,” The Economics of Crime and Punishment, conference volume of the American Enterprise Institute for Public Policy Research (1973).

“Legality and Reality: Some Evidence on Criminal Procedure,” *Journal of Legal Studies* (June 1974).

“The Private Enforcement of Law,” *Journal of Legal Studies* (January 1975), co-authored with Richard A. Posner.

“The Independent Judiciary in an Interest Group Perspective,” (Universities-National Bureau Conference on Economic Analysis of Political Behavior) *Journal of Law and Economics* (December 1976), co-authored with Richard A. Posner.

“Legal Precedent: A Theoretical and Empirical Analysis,” *Journal of Law and Economics* (September 1976), co-authored with Richard A. Posner.

“Salvors, Finders, Good Samaritans, and Other Rescuers: An Economic Study of Law and Altruism,” *Journal of Legal Studies* (January 1978), co-authored with Richard A. Posner.

“Should We Tax Virgin Materials to Finance Waste Disposal?” *Waste Age* (March 1978), co-authored with Richard A. Posner.

“An Economic Study of U.S. Aircraft Hijacking, 1961-1976,” *Journal of Law and Economics* (April 1978).

“Altruism in Law and Economics,” Papers and Proceedings of the *American Economic Review* (May 1978), co-authored with Richard A. Posner.

“Adjudication as a Private Good,” *Journal of Legal Studies* (March 1979), co-authored with Richard A. Posner.

“Should Indirect Purchasers Have Standing to Sue Under the Antitrust Laws?” An Economics Analysis of the Rule of Illinois Brick,” *University of Chicago Law Review* (Spring 1979), co-authored with Richard A. Posner.

“Benefits and Costs of Airline Mergers: A Case Study,” *The Bell Journal of Economics* (Spring, 1980), co-authored with Dennis W. Carlton and Richard A. Posner.

“Legal Change, Judicial Behavior and the Diversity Jurisdiction,” *Journal of Legal Studies* (March 1980), co-authored with Richard A. Posner.

“Joint and Multiple Tortfeasors: An Economic Analysis,” *Journal of Legal Studies* (June 1980), co-authored with Richard A. Posner.

“The Economics of Passing On: A Reply to Harris and Sullivan,” *University of Pennsylvania Law Review* (May 1980), co-authored with Richard A. Posner.

“Contribution Among Antitrust Defendants: A Legal and Economic Analysis,” *Journal of Law and Economics* (October 1980), co-authored with Frank H. Easterbrook and Richard A. Posner.

“An Introduction to the Economics of Antitrust,” an appendix in Richard A. Posner and Frank H. Easterbrook, Antitrust: Cases, Economic Notes and Other Materials (West, 2d ed. 1980).

“Market Power in Antitrust Cases,” *Harvard Law Review* (March 1981), co-authored with Richard A. Posner.

“The Positive Economic Theory of Tort Law,” *Georgia Law Review* (Summer 1981) co-authored with Richard A. Posner.

“An Economic Theory of Intentional Torts,” *International Review of Law and Economics* (December 1981) co-authored with Richard A. Posner.

“Causation in Tort Law: An Economic Approach,” *Journal of Legal Studies* (January 1983) co-authored with Richard A. Posner.

“Optimal Sanctions for Antitrust Violations,” *University of Chicago Law Review* (Spring 1983). Reprinted in 26 *The Journal of Reprints for Antitrust Law and Economics*, 79 (1996).

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“Tort Law as a Regulatory Regime for Catastrophic Personal Injuries,” *Journal of Legal Studies* (August 1984) co-authored with Richard A. Posner.

“A Positive Economic Analysis of Products Liability,” *Journal of Legal Studies* (December 1985) co-authored with Richard A. Posner.

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“Some Economics of Trade Secret Law,” *Journal of Economic Perspectives*, (Winter, 1991) co-authored with David Friedman and Richard A. Posner.

“Copyright Protection of Letters, Diaries and Other Unpublished Works: An Economic Approach,” *Journal of Legal Studies* (January 1992).

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“The Art of Law and Economics: An Autobiographical Essay,” 41 *The American Economist*, No. 1 (Spring 1997), reprinted in “Passion and Craft, Economists at Work,” Michael Szenberg, ed. (Ann Arbor: Michigan University Press, 1999)

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“The Economics of Presidential Pardons and Commutations,” *Journal of Legal Studies* (Jan. 2009) co-authored with Richard A. Posner.

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“Inferring the Winning Party in the Supreme Court from the Pattern of Questioning at Oral Argument,” *Journal of Legal Studies* Vol. 39 (2010) co-authored with Lee Epstein and Richard A. Posner

- Research findings discussed/described/reviewed in the *New York Times*, June 27, 2012; *Detroit Free Press*, April 1, 2012; *Chicago Tribune*, March 31, 2012; *Los Angeles Times*, March 31, 2012; *New York Times*, March 30, 2012

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- Reprinted in *The Economics of Judicial Behaviour*, ed. Lee Epstein. Cheltenham, UK: Edward Elgar Publishing.

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“Are Even Unanimous Decisions in the U.S. Supreme Court Ideological?” *NW.U. L. REV.* Vol. 106 (No. 2) 699 (2012) co-authored with Lee Epstein and Richard A. Posner

- Described in [The New Republic](#), July 1, 2014

“Was There Ever Such A Thing As Judicial Self-Restraint?” *Cal. L. Rev.* Vol. 100 (2012) 557 co-authored with Lee Epstein

“How Business Fares in the Supreme Court,” *Minn. L. Rev.* Vol. 97 (2013) 1431 co-authored with Lee Epstein and Richard A. Posner

- Reprinted in *the Corporate Practice Commentator*, 55: 505-543 (2013).
- Study described/mentioned in the [Economist](#), March 11, 2015; [New York Times](#), May 4, 2013; [ABA Journal](#), May 7, 2013; [Huffington Post](#), May 6, 2013; [Atlanta Journal-Constitution](#), May 7, 2013; [Slate](#), June 20, 2013; [Harvard Business Review](#), June 21, 2013.

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Appendix B: Materials Relied Upon

Materials Relied Upon

Expert Reports

Expert Report of Dr. Susan Athey, February 6, 2017

Expert Report of David S. Evans, February 6, 2017

Expert Report of Dr. Anindya Ghose February 23, 2017

Expert Report of Ronald C. Goodstein, February 23, 2017

Expert Report of Howard S. Hogan, February 23, 2017

Bates-Stamped Documents

1-800F_00091871

1-800F_00096387

1-800F_00056231

1-800F_00047111

1-800F_00032427

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Depositions

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<http://interbrand.com/best-brands/best-global-brands/2016/ranking/>