REVISITING THE RATIONALITY ASSUMPTION OF DISCLOSURE LAWS: AN EMPIRICAL ANALYSIS

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I. INTRODUCTION

Disclosure laws are one of the most common types of regulation in American law.\(^1\) These laws normally require the “discloser” to give the “disclosee” a pre-contractual disclosure which includes information about the potential risks associated with a product or service provided by the discloser.\(^2\) Disclosure laws cover a wide range of products

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and services such as mortgages, houses, mutual funds, health, and franchises.³

Given the broad coverage of disclosure laws, it is not surprising that they have sparked years of ongoing and intense debate and controversy.⁴ Proponents of disclosure laws believe that these laws allow disclosees to be well-informed and consider the contractual risks before purchasing a product or service.⁵ By considering the disclosed risks, disclosees can choose safer goods and services.⁶ This support for disclosure laws is backed by one central implicit theoretical assumption that underlines these laws: that disclosees are, by their very nature, rational actors who will be better able to consider the risks involved in informed and consider the contractual risks before purchasing a product or service.

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3. See infra Part II.
5. Bernstein, supra note 1, at 198, 199 & 199 n.164 (“[T]he theory underlying the regulatory technique of mandatory disclosures presupposes that people make better decisions for themselves when well-informed than anyone can make for them.”); see Ben-Shahar & Schneider, supra note 2, at 681-82 & n.178 (“[Mandatory disclosure] supposes that people make better decisions for themselves than anyone can make for them and that people are entitled to freedom in making decisions.”); Y. Angela Lam, Note, The Gift That Keeps on Taking: How Federal Banking Laws Prevent States from Enforcing Gift Card Laws, 93 MICH. L. REV. 311, 336-37 (2005) (“Consumer advocates have long argued for more disclosure, based on the idea that a well-informed consumer will be better able to consider the risks . . . before purchasing a product.”). For other potential benefits of disclosure laws see THOMAS A. DURKIN & GREGORY ELLIEHAUSEN, TRUTH IN LENDING: THEORY, HISTORY, AND A WAY FORWARD 171-72, 173-74 tbl.7.1, 175-79 (2011).
6. Fung et al., supra note 4, at 6-7.
7. See infra Part II.
This dominant assumption that underlies disclosure laws, namely that disclosees are rational actors, has already been questioned by opponents of disclosure laws. In particular, those opposed to disclosure laws theoretically argued that disclosees suffer from one serious cognitive constraint: bounded rationality. More specifically, a typical disclosee is boundedly rational, and is therefore cognitively incapable of reading and analyzing disclosures, which are normally too complex and ubiquitous.

In the same vein as existing theoretical behavioral criticism on disclosure laws, this Article empirically shows, for the first time, that disclosees may suffer from another serious cognitive limitation apart from bounded rationality: unrealistic optimism about disclosed risks. Focusing as a case study on franchisees, who are often perceived as sophisticated and rational disclosees, this Article empirically shows

8. Geoffrey A. Manne, The Hydraulic Theory of Disclosure Regulation and Other Costs of Disclosure, 58 Ala. L. Rev. 473, 508-09 & n.154 (2007) (“A related criticism of expansive disclosure regulations is that users of information (including regulators as well as investors) are constrained—boundedly rational—in their ability to know what information is useful to them and how to use the information they receive to make optimal decisions.”); Susanna Kim Ripken, The Dangers and Drawbacks of the Disclosure Antidote: Toward a More Substantive Approach to Securities Regulation, 58 Baylor L. Rev. 139, 187 nn.184-86, 188 (2006) (“No matter how much we do to make disclosure more meaningful and accessible to investors, it will still be difficult for people to overcome their bounded rationality.”); Lauren E. Willis, Performance-Based Consumer Law, 82 U. Chi. L. Rev. 1309, 1321, 1323-24 (2015) (“Scholars and regulators have generally attributed disclosee’s failures to bounded consumer rationality . . . .”).

9. See Christine Jolls et al., A Behavioral Approach to Law and Economics, 50 Stan. L. Rev. 1471, 1477-78 (1998) (noting that bounded rationality refers to the fact that human cognitive abilities are limited). Specifically, “[p]eople have limited computational skills and seriously flawed memories.” Id. at 1477; see also HERBERT A. SIMON, MODELS OF MAN 198 (1957).

10. Ben-Shahar & Schneider, supra note 1, at 5258-59 (“[D]isclosers pile so much information on readers that they cannot possibly cope with the burden of understanding and analyzing what they have read. These problems are intensified by the fact that people are often not literate enough, or schooled enough in the complexities of quite specialized decisions, to use the information profitably.”).

11. See infra Part III-B–D.

that franchisees are, by their very nature, cognitively biased. More concretely, the evidence presented in this Article strongly indicates that franchisees are unrealistically optimistic about the major risks disclosed under the federal franchise disclosure rule that governs the significant franchise industry.

The broad potential implications of our empirical results are twofold: first, the assumption that disclosees are rational is dubious, and second, disclosees, being unrealistically optimistic about disclosed risks, may discount risk-related information disclosed under disclosure laws. Our results hence cast significant doubts over the effectiveness of disclosure laws in protecting disclosees from prospective hazards.

This Article proceeds as follows: Part II provides context by reviewing the underlying major implicit assumption of disclosure laws, namely that disclosees are rational actors. Part III presents data and discuss the methodology for empirically testing our hypothesis whereby franchisees, the focus of our empirical case study, are unrealistically optimistic about disclosed risks. Part IV discusses the normative implications of the empirical results.

II. DISCLOSURE LAWS’ RATIONALITY ASSUMPTION

One central goal of disclosure laws is to allow disclosees to assess the expected risks of a decision before making one. For example, the

Jabush, 89 F.3d 109, 113 (2d Cir. 1996) ("As purchasers of a Subway sandwich franchise, the Spearses '[were] not vulnerable consumers or helpless workers. They [were] business people who bought a franchise."); Original Great Am. Chocolate Chip Cookie Co. v. River Valley Cookies, Ltd., 970 F.2d 273, 281 (7th Cir. 1992)); Original Great Am. Chocolate Chip Cookie Co., 970 F.2d at 281 ("The Sigels are not vulnerable consumers or helpless workers. They are business people who bought a franchise.").

13. See infra Part IV.
14. See infra Part II.
15. See infra Part II.
16. See infra Part III.
17. See infra Part IV.
18. See, e.g., Lead; Proposed Requirements for Disclosure of Information Concerning Lead-Based Paint in Housing, 59 Fed. Reg. 54,984, 54,986 (Nov. 2, 1994) (codified at 40 C.F.R. pt. 745) ("The purpose of this proposed rule is to ensure that families are aware of...the hazards of exposure to lead-based paint."); Diane Thompson, Know Before You Owe: New Mortgage Disclosures, New Rule, CONSUMER FIN. PROT. BUREAU (Oct. 5, 2015), http://www.consumerfinance.gov/blog/know-before-you-owe-new-mortgage-disclosures-new-rule ("This rule is a part of our Bureau-wide Know Before You Owe mortgage initiative. We are working to make the...risks of financial products and services clearer, so you can make better, more informed decisions."); Press Release, Sec. & Exch. Comm’n, SEC Improves Disclosure for Mutual Fund Investors (Nov. 19, 2008), https://www.sec.gov/news/press/2008/2008-275.htm ("Today’s action will help mutual fund investors more easily obtain the key information they need — such as the description of the fund’s investment objectives and...risks..."); said SEC Chairman Christopher Cox.").
purpose of the “Know Before You Owe” mortgage disclosure rule is to help consumers understand the key risks of the mortgage loan for which they are applying.\textsuperscript{19} For that purpose, lenders must disclose the loan’s key risks, such as payment penalties or increases to the mortgage loan balance.\textsuperscript{20} Likewise, the purpose of the “Lead Disclosure Rule” is to ensure that home purchasers are aware of the risks of exposure to lead-based paint before buying an apartment.\textsuperscript{21} Accordingly, the Lead Disclosure Rule requires sellers to provide purchasers with a federally approved lead hazard information pamphlet.\textsuperscript{22} Similarly, the purpose of the Securities and Exchange Commission’s (“SEC”) Mutual Fund Disclosure policy is to help mutual fund investors more easily obtain key information about mutual fund risks.\textsuperscript{23} Accordingly, each fund must disclose the principal risks of investing in the fund, “including the risks to which the Fund’s portfolio as a whole is subject and the circumstances reasonably likely to affect adversely the Fund’s net asset value, yield, and total return.”\textsuperscript{24} Similarly, pre-abortion disclosure laws require physicians to inform women of the health risks associated with abortion and childbirth before performing an abortion, in order to allow women to assess these risks.\textsuperscript{25}

Another major example of a disclosure law that aims to allow disclosees to assess the expected risks of their decision, and on which this Article is focused, is the “Federal Franchise Rule.”\textsuperscript{26} One of the

\begin{itemize}
\item[19.] Thompson, supra note 18.
\item[20.] What Is a Loan Estimate?, CONSUMER FIN. PROTECTION BUREAU (Sept. 12, 2017), http://www.consumerfinance.gov/askcfpb/1995/what-is-a-loan-estimate.html (“The lender must provide you a Loan Estimate within three business days of receiving your application. . . . [T]he form indicates if the loan has special features that you will want to be aware of, like penalties for paying off the loan early (a prepayment penalty) or increases to the mortgage loan balance even if payments are made on time (negative amortization”).).
\item[21.] Lead; Proposed Requirements for Disclosure of Information Concerning Lead-Based Paint in Housing, 59 Fed. Reg. at 54,986.
\item[22.] 24 C.F.R. § 35.88(a)(1) (2017) (“The seller or lessor shall provide the purchaser or lessee with an EPA-approved lead hazard information pamphlet.”).
\item[26.] See 16 C.F.R. § 436.3(c)(4) (2016); Franchise Rule, FED. TRADE COMM’N, https://www.ftc.gov/enforcement/rules/rulemaking-regulatory-reform-proceedings/franchise-rule (last visited Feb. 15, 2018). This Article refers to the FTC’s Federal Franchise Rule as the
Rule’s goals is to allow prospective franchisees to assess the risk that their potential franchisor will terminate their franchise contract opportunistically. The risk of opportunistic termination can take one of two central forms: (1) franchisors may terminate the contract of an efficient franchisee, who fully complies with the contract, solely for the purpose of selling the latter’s profitable unit to a new franchisee for higher franchise fees; or (2) a franchisor may terminate the contract of an efficient franchisee simply to manage the successful unit himself.

In order to allow potential franchisees to assess the prospective risk of opportunistic termination by their franchisor, the Franchise Rule requires each franchisor to disclose the following information through a pre-contractual disclosure document entitled Franchise Disclosure Document (“FDD”). First, the franchisor must summarize the conditions under which it may terminate the franchise contract. Specifically, if the franchisor has a right to terminate the contract at-will, it must disclose this right in a specified tabular format. Second, the franchisor must disclose the history of civil litigations within the franchise system. This information is intended to alert potential franchisees that a franchise system has been plagued by lawsuits of opportunistic termination practices. Third, the FDD must disclose the annual number of franchisees previously terminated by the franchisor without compensation. Fourth, the franchisor must disclose the contact information of former franchisees terminated by the franchisor. This

"Franchise Rule" or the “Rule.”


29. 16 C.F.R. § 436.5(q) & item 17 tbl.

30. Id.

31. Id. 436.5(c)(1)(i)(A), (iii)(B), (3).

32. Charles S. Hale, II, Note, Market Impact in the Information Age: Protecting Hotel Owners from Hotel Management Companies, 108 W. VA. L. REV. 573, 581 (2005) (“The most effective part of the disclosure laws are the requirements that franchisors disclose information regarding the history of criminal and civil litigation within the franchise system, alerting potential franchisees that a franchise system has been plagued with complaints of abusive practices.”).

33. 16 C.F.R. § 436.5(t)(2)(ii)(E) & item 20 tbl.3.

34. Id. § 436.5(t)(5).
information is intended to allow prospective franchisees to investigate the causes of previous franchisee terminations, and use it to assess the prospective risks of future opportunistically termination by the franchisor.\footnote{35}

A seminal implicit assumption that underlines disclosure laws—which aim to allow disclosees to assess the expected risks of their decision—is that disclosees are inherently rational.\footnote{36} More specifically, disclosure laws assume that disclosees, as rational actors, are likely to read the risk-related information disclosed, systematically assess the disclosed risks, and freely choose whether to take these risks based on their internal risk preferences.\footnote{37} For example, in the context of the Franchise Rule, the Federal Trade Commission (“FTC”) explains, that the Franchise Rule is based on the theory that an informed franchisee “can determine whether a franchise deal is in his or her best interest.”\footnote{38} Moreover, the Bureau of Consumer Protection at the FTC explains that the Franchise Rule is “a cost-effective way to provide material information to prospective franchisees so they can assess the . . . potential financial risks involved in entering into a franchise relationship.”\footnote{39} Given the assumption that franchisees can rationally

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\item \footnote{35}{Mario Herman, Don’t Be a Victim of Franchise Fraud, aka, Churning – Understanding Item 20 Part 2, FRANCHISE KNOW HOW, http://www.franchiseknowhow.com/legal_corner/churning2.htm (last visited Feb. 15, 2018) (“[A] careful review of Item 20 [of the Franchise Rule] can disclose some red flags which might help to prevent you from falling victim to franchise . . . churning. Is there a high turnover rate? What are the reasons for the turnover rate?”); see STATE OF CAL. DEP’T OF BUS. OVERSIGHT, LOOK BEFORE YOU LEAP: A GUIDE TO BUYING A FRANCHISE 5, 7 (2015), http://www.dbo.ca.gov/forms/doc/DBO-SRD%20QR%20518%20Look%20Before%20You%20LEap.pdf (“Question[] to ask a former franchisee: If there was a termination or non-renewal, did the franchisor explain why . . . .”).}
\item \footnote{36}{See, e.g., Lauren E. Willis, Decisionmaking and the Limits of Disclosure: The Problem of Predatory Lending: Price, 65 Md. L. Rev. 707, 712, 741-48 (2006) (“Current federal law governing home lending requires that borrowers be given an avalanche of disclosures . . . . The law is premised on a largely unbounded rational actor model of borrower decisionmaking . . . .”).}
\item \footnote{37}{See, e.g., Ben-Shahar & Schneider, supra note 2, at 727-28 (“Mandated disclosure assumes that people want to make decisions themselves and want to do so by gathering and evaluating information about their choices.”); Steven W. Bender, Consumer Protection for Latinos: Overcoming Language Fraud and English-Only in the Marketplace, 45 AM. U. L. REV. 1027, 1075 (1996) (“Disclosure laws assume that consumers will read the information disclosed . . . .”); Marc I. Steinberg & Lee E. Michaels, Disclosure in Global Securities Offerings: Analysis of Jurisdictional Approaches, Commonality and Reciprocity, 20 Mich. J. Int’t L. 207, 210 (1999) (“The theory of disclosure assumes that if the business and financial condition of an enterprise are adequately and accurately disclosed in a publicly available document, then an investor can make an informed determination regarding whether to engage in the prospective transaction.”); Willis, supra note 36, at 712 (“The law . . . assumes that borrowers will take the disclosures and freely choose a loan available in the market according to the borrower’s own internal price and risk preferences.”).}
\item \footnote{39}{BUREAU OF CONSUMER PROT., FED. TRADE COMM’N, DISCLOSURE REQUIREMENTS AND PROHIBITIONS CONCERNING FRANCHISING: STAFF REPORT TO THE FEDERAL TRADE COMMISSION AND PROPOSED REVISED TRADE REGULATION RULE (16 CFR PART 436), at 6 (2004),}
\end{itemize}
assess the franchise risks, the FTC’s long-held conclusion is that “informed [franchisee] choice is the best regulator of the market.”

III. THE EMPIRICAL TEST: ARE FRANCHISEES RATIONAL?

A. The Franchise Industry: A Brief Overview

The franchise industry plays a vital role in the U.S. economy. It incorporates around 782,000 establishments. These establishments, in turn, provide approximately 8.8 million jobs. Furthermore, they produce goods and services worth about $890 billion annually, and contribute approximately $520 billion to the gross domestic product. Franchise businesses cross more than 300 business lines.

These business lines can be categorized into ten major areas: “Automotive, Business Services, Commercial & Residential Services, Lodging, Personal Services, Quick Service Restaurants, Real Estate, Retail Food, Retail Products & Services and Table/Full Service Restaurants.”

As stated above, the franchise industry is governed by a federal disclosure law commonly known as the Franchise Rule. The Rule was enacted by the FTC, an agency that aims to enhance informed consumer choice. The Rule requires each franchisor to provide potential franchisees with a FDD containing “information about the offered franchise, its officers, and its franchisees.” The FDD is

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40. Id. at 11.
41. See IHS ECONOMICS, FRANCHISE BUSINESS ECONOMIC OUTLOOK FOR 2015, at 5 n.2, 8 tbl. (2015), https://www.franchise.org/sites/default/files/Franchise_Business_Outlook_Sep_2015.pdf (“An establishment is a single physical location at which business is conducted or services or industrial operations are performed. . . . An establishment may be owned by the franchisor or the franchisee.”).
42. Id. at 8 tbl.
43. Id.
45. Id.
intended to allow potential franchisees to assess the expected risks of the offered franchise before making a purchasing decision.\textsuperscript{50}

\textbf{B. The Theoretical Hypothesis}

Our hypothesis is that the rationality assumption that underlines the Franchise Rule is false. Particularly, we predict that franchisees are unrealistically optimistic about the specific risks that are disclosed in the FDD, as required by the Franchise Rule. Our hypothesis is based on existing empirical studies, which show that people, in various aspects of life, are unrealistically optimistic about general future risks.\textsuperscript{51} Unrealistic optimism is broadly defined as the tendency of an individual to think that misfortunes will happen to the other, and not to oneself.\textsuperscript{52} The concept of unrealistic optimism was first introduced in 1980\textsuperscript{53} and has since been documented in over one thousand studies.\textsuperscript{54}

For example, individuals are unrealistically optimistic about their chances of suffering health problems, such as heart attacks or arthritis.\textsuperscript{55} Smokers are unrealistically optimistic about their risk of lung cancer, heart disease, and emphysema.\textsuperscript{56} Individuals are unrealistically optimistic regarding their likelihood of contracting HIV.\textsuperscript{57} Women are unrealistically optimistic about their risk of getting breast cancer.\textsuperscript{58} Men are unrealistically optimistic about their risk of getting prostate cancer.\textsuperscript{59}

\begin{thebibliography}{9}
\bibitem{note1} See infra notes 55-71 and accompanying text.
\bibitem{note3} See id.
\bibitem{note4} James A. Shepperd et al., \textit{A Primer on Unrealistic Optimism}, 24 CURRENT DIRECTIONS PSYCHOL. SCI. 232, 232 (2015).
\bibitem{note9} Id. at 373 tbl.II, 374-75.
\end{thebibliography}
Drivers are unrealistically optimistic about their driving risks.\textsuperscript{60} Motorcyclists are unrealistically optimistic about their risk of being involved in a serious road accident.\textsuperscript{61} College students are unrealistically optimistic about their risk of being involved in a traffic accident.\textsuperscript{62} College students are optimistically biased about positive life events, such as liking their post-graduation job or owning their own home.\textsuperscript{63} College students are also unrealistically optimistic about negative life events, such as having a drinking problem or being fired from a job.\textsuperscript{64} Individuals are unrealistically optimistic about their risk of committing suicide or becoming addicted to drugs.\textsuperscript{65} Students who experienced an earthquake are unrealistically optimistic, a couple of months after the earthquake, about their risk of being hurt in a natural disaster.\textsuperscript{66} Novice bungee jumpers are unrealistically optimistic about their risk of injury.\textsuperscript{67} Individuals who had recently applied for a marriage license are unrealistically optimistic about the longevity of their marriage.\textsuperscript{68}

Equally, empirical studies consistently show that business people, although often perceived as more sophisticated than non-business people,\textsuperscript{69} are unrealistically optimistic as well. Entrepreneurs are unrealistically optimistic about their own odds for business success.\textsuperscript{70}

\textsuperscript{60} See Dominique Gosselin et al., Comparative Optimism Among Drivers: An Intergenerational Portrait, 42 ACCIDENT ANALYSIS & PREVENTION 734, 737 tbl.2, 738 (2010); see also Ola Svenson et al., Perceived Driving Safety and Seatbelt Usage, 17 ACCIDENT ANALYSIS & PREVENTION 119, 126, 131 (1985).


\textsuperscript{63} Weinstein, supra note 52, at 810 tbl.1, 811.

\textsuperscript{64} Id.

\textsuperscript{65} Neil D. Weinstein, Unrealistic Optimism About Susceptibility to Health Problems: Conclusions from a Community-Wide Sample, 10 J. BEHAV. MED. 481, 486 tbl.1, 488 (1987).


\textsuperscript{67} Wendy Middleton et al., Give 'Em Enough Rope: Perception of Health and Safety Risks in Bungee Jumpers, 15 J. SOC. & CLINICAL PSYCHOL. 68, 76 tbl.2 (1996).


\textsuperscript{69} In the legal context, business people are often perceived as more sophisticated than members of the general population, such as consumers. See, e.g., Doctor's Assocs., Inc. v. Jabush, 89 F.3d 109, 113 (2d Cir. 1996); Original Great Am. Chocolate Chip Cookie Co. v. River Valley Cookies, Ltd., 970 F.2d 273, 281 (7th Cir. 1992); Susan Saab Fortney, Seeking Shelter in the Minefield of Unintended Consequences – The Traps of Limited Liability Law Firms, 54 WASH. & LEE L. REV. 717, 752 & n.158 (1997); Harry G. Prince, Unconscionability in California: A Need for Restraint and Consistency, 46 HASTINGS L.J. 459, 481-82 & nn.112-17, 501 (1995).

\textsuperscript{70} Arnold C. Cooper et al., Entrepreneurs’ Perceived Chances for Success, 3 J. BUS.
Similarly, entrepreneurs are unrealistically optimistic about the probability of their business surviving.\textsuperscript{71}

Within the field of franchising—the focus of our empirical case study—empirical studies indicate that franchisees are also unrealistically optimistic. For example, franchisees may be unrealistically optimistic about their potential profits, and the level of training and support provided by the franchisor.\textsuperscript{72} Similarly, franchisees are unrealistically optimistic about the number of units they will develop in their territory within a certain time period.\textsuperscript{73} Likewise, franchisees are unrealistically optimistic about their business capabilities to uncover and implement their own novel business alternatives, which compete with the ones provided by their experienced and knowledgeable franchisor.\textsuperscript{74} Correspondingly, franchisees are optimistically biased about their sales volume.\textsuperscript{75}

Given the empirical evidence that people, including franchisees, are generally optimistic about the future, we predict that franchisees are specifically optimistic about the major risks disclosed by operation of the Franchise Rule.

\section*{C. Methodology}

\subsection*{1. General}

In order to assess whether franchisees are rational or unrealistically optimistic about risks disclosed under the Franchise Rule, we apply the “direct method” of analysis,\textsuperscript{76} developed mainly by Professor Neil


\textsuperscript{74} See Sidney G. Winter et al., \emph{Reproducing Knowledge: Inaccurate Replication and Failure in Franchise Organizations}, 23 ORG. SCI. 672, 678 tbl.2, 679-81 (2012).


\textsuperscript{76} Adam J. L. Harris & Ulrike Hahn, \emph{Unrealistic Optimism About Future Life Events: A Cautionary Note}, 118 PSYCHOL. REV. 135, 137 (2011) (explaining what the direct method requires); James A. Shepperd et al., \emph{Taking Stock of Unrealistic Optimism}, 8 PERSP. ON PSYCHOL. SCI. 395, 399 (2013).
Weinstein.77 This method is the most popular empirical method for assessing unrealistic optimism and has been applied in hundreds of studies.78 Under this method, representative individuals from a group “are required to make a comparative, quantitative response indicating the degree to which they are more or less likely to experience [a certain risk] than the average person.”79 If the individuals, as a whole, are rational, their overall mean of comparative risk judgments combined should equal the “average.”80 In other words, the average of all individual levels of risk indicated by the participants should be equal to the average risk in the group. Conversely, a significant tendency for the individuals’ overall mean to be lower than “average” indicates unrealistic optimism on the part of the individuals, as a whole, because the mean risk of the group should be, by definition, “average.”81 The lower the mean, compared to the average, the greater the level of unrealistic optimism.82 To illustrate, if all individuals claim that their chances of experiencing a problem are well below average, they clearly demonstrate, as a whole, unrealistic optimism.83

2. Participants

The Franchise Rule obligates every franchise chain to disclose the contact information of its current franchisees.84 Since we decided, for logistical reasons, to conduct an email survey rather than a phone survey, we located all the franchise chains in the representative Entrepreneur Magazine’s dataset85 that disclose their franchisees’ email

77. See Harris & Hahn, supra note 76, at 137. Professor Neil D. Weinstein is a Distinguished Professor Emeritus at the Rutgers School of Environmental and Biological Sciences. Department of Human Ecology: Faculty, RUTGERS SCH. OF ENVTL. & BIOLOGICAL SCI., http://humanecology.rutgers.edu/faculty.asp?fid=40 (last visited Feb. 15, 2018). He has written several classic papers on unrealistic optimism. See, e.g., Weinstein, supra note 52; Neil D. Weinstein, Unrealistic Optimism About Susceptibility to Health Problems, 5 J. BEHAV. MED. 441 (1982); Weinstein, supra note 65.

78. Harris & Hahn, supra note 76 (stating that the direct method is “[t]he most popular measure for assessing unrealistic optimism”); Shepperd et al., supra note 76 (“Most unrealistic optimism studies—hundreds of them—have examined unrealistic comparative optimism using the direct approach.”).

79. Harris & Hahn, supra note 76 (noting the direct method is “[t]he most popular measure for assessing unrealistic optimism”); see Shepperd et al., supra note 76.

80. See Harris & Hahn, supra note 76.

81. Weinstein, supra note 65, at 488-89.

82. Id. at 488.

83. See id.

84. 16 C.F.R. § 436.5(t)(4) (2007).

85. Previous studies have estimated that Entrepreneur Magazine’s dataset is representative of the population of franchisors operating in the United States. See, e.g., Scott Shane & Maw-Der Foo, New Firm Survival: Institutional Explanations for New Franchisor Mortality, 45 MGMT. SCI. 142, 146 (1999); Scott Shane et al., The Effects of New Franchisor Partnering Strategies on Franchise
addresses in their FDD, as opposed to their phone numbers. This process led to a sample of 1741 franchisees from twenty-six different franchise chains. These chains are from heterogeneous business lines such as real estate, business services, health care, maintenance, education, vending, fitness, shipping, children’s products and services, and fast food.

Out of 1741 email addresses, 118 were invalid. Of the emails sent to valid addresses, 878 were opened by the franchisees. We believe that unopened emails sent to valid addresses were sent to recipients’ spam folders or were suspected as spam. Of the 878 emails that were opened, 205 franchisees (23.3%) filled out the research questionnaire. Franchisees who chose to participate in the study did so voluntarily, without any monetary or other compensation.

Table 1 summarizes the franchisees’ ages. The ages ranged between 20 to 61 years and above: 2% of the franchisees in the sample were 20 to 30 years of age, 12.3% were 31 to 40, 23.0% were 41 to 50, 34.8% were 51 to 60, and 27.9% were 61 and over. The majority of the sample, 85.7%, were over 41 years of age.

Table 1. Franchisees’ Ages

<table>
<thead>
<tr>
<th>Age</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>20 – 30</td>
<td>2%</td>
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<tr>
<td>31 – 40</td>
<td>12.3%</td>
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<td>41 – 50</td>
<td>23%</td>
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<td>51 – 60</td>
<td>34.8%</td>
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<td>61 +</td>
<td>27.9%</td>
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Table 2 summarizes the franchisees’ experience in the franchise industry. The experience ranged between less than 1 year to 16 years and above: 29.2% had 0 to 2 years of experience, 32.5% had 3 to 5

 86. The sample chains were Amazing Athletes, American Poolplayers Association, Bevintel, Bricks 4 Kidz, Dryer Vent Wizard, East Coast Wings, Happy & Healthy Products, HomeVestors, HUMAN Healthy Vending, InXpress, KidzArt, Massage Heights, Menchie’s, Molly Maid, Mr. Handyman, National Property Inspections, PostNet, Pro Martial Arts, Right at Home, SpeedPro, Steamatic, TGA Premier Youth Tennis, The Alternative Board, The Woodhouse Day Spa, Tippi Toes Dance, Wild Bird Unlimited, and Zoom Room.
 87. See infra Part III.C tbl.1.
 88. See infra Part III.C tbl.2.
years, 18.9% had 6 to 10 years, 10.2% had 11 to 15 years, and 9.2% had 16 years of experience or more. More than half of the sample, 61.7%, had up to 5 years of experience.

Table 2. Franchisees’ Experience

<table>
<thead>
<tr>
<th>Experience (Years)</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>0 – 2</td>
<td>29.2%</td>
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<tr>
<td>3 – 5</td>
<td>32.5%</td>
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<tr>
<td>6 – 10</td>
<td>18.9%</td>
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<tr>
<td>11 – 15</td>
<td>10.2%</td>
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<tr>
<td>16 +</td>
<td>9.2%</td>
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</table>

Table 3 summarizes the number of franchise units owned by each franchisee.89 This number ranged from one unit to five units or more: 79.1% had only one franchise unit, 15.0% had two units, 1.5% had three units, 1.0% had four units, and 3.4% had five units or above. The vast majority of franchisees had only one franchise unit.

Table 3. Number of Franchise Units Owned by Each Franchisee

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<thead>
<tr>
<th>Units</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>79.1%</td>
</tr>
<tr>
<td>2</td>
<td>15%</td>
</tr>
<tr>
<td>3</td>
<td>1.5%</td>
</tr>
<tr>
<td>4</td>
<td>1%</td>
</tr>
<tr>
<td>5 +</td>
<td>3.4%</td>
</tr>
</tbody>
</table>

3. Instruments

A questionnaire comprising five items was developed specifically for this study. Two items were used to assess unrealistic optimism by asking the franchisees to assess two potential risks addressed in the FDD, as provided to each franchisee under the Franchise Rule. More

89. See infra Part III.C tbl.3.
specifically, franchisees were asked to assess the likelihood—compared to other franchisees in their chain and state—that their franchisor might terminate a franchise unit that they own in order to resell it to someone else. Franchisees were also asked to assess the comparative likelihood that their franchisor might terminate a franchise unit that they own in order to operate it directly. Franchisees were asked to respond using a seven point Likert scale: much below average, below average, a little below average, average for a franchisee in my chain and state, a little above average, above average, and much above average. When analyzing the data, the seven possible responses were assigned numerical values ranging from (-3) to (+3) (“much below average” to “much above average,” respectively). This response scale is typically used in studies that empirically investigate the incidence of unrealistic optimism.  

The remaining three items in the questionnaire were demographic questions: franchisees were asked to report their age (“How old are you?”), years of experience in the franchise industry (“How many years in total have you been a franchisee?”), and number of units owned (“How many franchise units do you own?”).

4. Procedure
Franchisees were sent an email asking them to volunteer to participate in a study concerning franchisees’ perceptions of specific business risks. The email contained a hyperlink navigating participants to an online version of the research questionnaire. Franchisees who did not complete the questionnaire received a reminder to participate in the study six days later.

D. Results

1. General
Table 4 presents the distribution of franchisee responses in percentages, as well as the mean and standard deviation, regarding their franchisor’s intentions to resell the franchisee’s unit or operate the unit directly. As evident from the data concerning both potential risks, most of the franchisees believe that the likelihood of either scenario is much below average or below average.

90. See, e.g., Harris & Hahn, supra note 76, at 138 ("[T]he response scale typically used in this paradigm is a seven point scale from -3 (chances much less than the average person’s) to +3 (chances much greater than the average person’s) . . .").

91. See infra Part III.D tbl.4.
Table 4. Franchisee Assessment of Franchisor’s Intentions

<table>
<thead>
<tr>
<th>Franchisee assessment of franchisor’s intentions to:</th>
<th>Resell the unit (%)</th>
<th>Operate the unit directly (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Much below average</td>
<td>63.4</td>
<td>78.9</td>
</tr>
<tr>
<td>Below average</td>
<td>16.6</td>
<td>10.8</td>
</tr>
<tr>
<td>A little below average</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Average</td>
<td>7.3</td>
<td>4.4</td>
</tr>
<tr>
<td>A little above average</td>
<td>3.4</td>
<td>2.4</td>
</tr>
<tr>
<td>Above average</td>
<td>2.4</td>
<td>0.0</td>
</tr>
<tr>
<td>Much above average</td>
<td>4.4</td>
<td>1.0</td>
</tr>
<tr>
<td>Mean</td>
<td>-2.04</td>
<td>-2.55</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>1.66</td>
<td>1.07</td>
</tr>
</tbody>
</table>

2. Evidence of Unrealistic Optimism

The unrealistic optimism hypothesis was tested, namely, whether franchisees exhibit overconfidence in their judgments. If the comparative risk judgments in franchise businesses are unbiased, then the mean judgment will be zero for each risk. A mean less than zero indicates an optimistic bias, that is, a tendency to claim that one’s risk is less than the risk of others (i.e., the average risk). Thus, the mean comparative risk judgment is a measure of unrealistic optimism: the more negative the mean, the greater the bias.

A one sample t-test of the hypothesis that the mean is different from zero revealed a significant unrealistic optimism bias, in each of the two risks: (1) the likelihood attributed by franchisees to the risk that their franchisor might terminate a franchise unit they own in order to resell it to someone else was significantly lower than zero, i.e. the average \((M = -2.04, SD = 1.66; t [204] = -17.62, p < .001, d = 1.23)\); with a large effect size; and (2) in addition, the likelihood attributed by franchisees to the risk that their franchisor might terminate a franchise unit they own in order to operate the unit directly was significantly lower than zero, i.e. the average, as well \((M = -2.55, SD = 1.07; t [204] = -33.95, p < .001, d = 2.38)\); with a large effect size. It is apparent that franchisees display a significant optimistic bias with respect to the two risks included in this study.

3. Unrealistic Optimism and Demographics

The franchisees’ assessment of their franchisors’ intentions to resell their unit was found to be uncorrelated with age \((r = -.03, p = .635)\) or
years of experience ($r = -0.04, p = 0.581$). However, it was found to be correlated with the number of franchises owned ($r = 0.16, p = 0.019$); with a small effect size. That is, the more franchises a franchisee owns, the greater her assessment that her franchisor intends to resell a franchise unit that she owns.

The franchisees’ assessment of their franchisors’ intentions to operate the unit directly was found to be uncorrelated with years of experience ($r = -0.08, p = 0.284$) or number of franchises owned ($r = -0.01, p = 0.959$). However, it was found to be correlated with age ($r = -0.14, p = 0.044$); with a small effect size. That is, the younger the franchisee, the greater her assessment that her franchisor intends to operate the unit directly.

The franchisees’ assessments of their franchisors’ intentions to either resell the unit or operate the unit directly were found to be correlated with one another ($r = 0.63, p < 0.001$); with a large effect size. That is, the less a franchisee believes that her franchisor intends to resell her unit, the less she believes that her franchisor intends to operate the unit directly.

Age was correlated to years of experience ($r = 0.40, p < 0.001$); with a medium effect size. That is, the older a franchisee, the more years of experience she tends to have. The number of franchises owned was uncorrelated to age ($r = -0.05, p = 0.490$); or years of experience ($r = 0.04, p = 0.553$).

4. Two Risk Comparison

Although, as reported earlier, the relationship between the two items assessing overconfidence—the franchisees’ assessment that their franchisor intends to resell their unit or operate the unit directly—was found to be significant with a large effect size ($r = 0.63, p < 0.001$), we wanted to compare the two items to see if franchisees showed greater optimism bias with respect to one risk over the other. To this end, we applied a paired samples $t$-test. We found the franchisees’ overconfidence that their franchisors intend to operate the unit directly ($M = -2.55, SD = 1.07$) was significantly higher than their overconfidence that franchisors intend to resell the unit ($M = -2.04, SD = 1.66; t[203] = 5.45, p < .001, d = 0.38$); with a small effect size. That is, optimism bias was greater for franchisor intentions to operate the unit directly than for franchisor intentions to resell the unit, although the difference was small.
IV. DISCUSSION AND NORMATIVE IMPLICATIONS

Our empirical study reveals that franchisees, often perceived as sophisticated and rational disclosees, are inherently biased concerning disclosed risks. This discovery casts significant doubts over the underlying implicit assumption of the federal franchise disclosure rule, namely that franchisees are rational actors.

In addition, our results, which show that franchisees are cognitively biased, question the effectiveness of the Federal Franchise Disclosure Rule. More specifically, franchisees, being overly optimistic about disclosed risks, may simply avoid risk-related disclosure information that might contradict their optimistic beliefs. "If [disclosees] perceive that particular negative events are less likely to happen to them then it is possible that they will pay less attention to risk-related [disclosure] information . . . ." Disclosees who are unrealistically optimistic about their own abilities may not pay much attention to disclosure risk information, which they may feel is mainly directed at other less careful or less skillful individuals than themselves.

Indeed, empirical studies systematically show that people who are optimistically biased about their risks are less likely to seek information about those risks. For example, an empirical study by Anh, Park, and Haley examined the relationship between consumers’ optimism bias and their inclination to read mandated legal disclosures. By analyzing the survey data of 404 consumers, the study reveals that unrealistically optimistic consumers are less likely to pay attention to the mandated legal disclosure on the health risks of drugs, which is required by the

92. See supra note 69 and accompanying text.
93. See supra Part III.A–B.
94. Others have criticized the effectiveness of the SEC’s mandatory disclosure. See, e.g., Peter H. Huang, Regulating Irrational Exuberance and Anxiety in Securities Markets, in THE LAW AND ECONOMICS OF IRRATIONAL BEHAVIOR 501, 523 (Francesco Parisi & Vernon L. Smith eds., 2005) (“Mandatory disclosure might be at best, an impotent and, at worst, a socially harmful regulatory policy if the majority of investors experience cognitive biases . . . .”).
96. See, e.g., Frank P. McKenna, It Won’t Happen to Me: Unrealistic Optimism or Illusion of Control?, 84 BRIT. J. PSYCHOL. 39, 44 (1993).
Food and Drug Administration. The study further shows that unrealistically optimistic consumers are less likely to seek additional information about a drug’s health risks through alternative sources. In the same vein, an empirical study by Park, Ju, and Kim reveals that as consumers are more optimistically biased about the future risk of depression, they are less likely to seek information about this health problem.

Likewise, in an experimental study conducted by Fowler and Geers, undergraduate students who were unrealistically optimistic about their health conditions were less likely than other subjects to seek health information by attending informative seminars. In the same vein, in an empirical study conducted by Radcliffe and Klein, subjects were given an opportunity to read about one heart attack risk factor out of the following six factors: alcohol consumption, fat consumption, nutrition, smoking, exercise, and stress. The study shows that subjects who were unrealistically optimistic about their risk of heart attack chose to read about a risk factor toward which they believed they possessed a favorable standing, and chose not to read about risk factors toward which they possessed a less favorable standing.

Likewise, according to an empirical study conducted by Lu, Dzwo, Hou, and Andrews, subjects who were optimistically biased about the risks of eating food cooked by arsenic-contaminated oil were less intend on seeking information regarding those risks. Similarly, in an experimental study conducted by Wiebe and Black, subjects received an informative pamphlet containing information about contraception, “as well as the specific advantages and disadvantages of several different contraceptives.” Prior to reading the pamphlet, the optimistically-
biased subjects reported lower interest in the pamphlet than did the more realistic subjects.\textsuperscript{108}

V. CONCLUSION

A seminal assumption that underlies current disclosure laws is that disclosees are intrinsically rational. As such, disclosees are presumed to be able to rationally assess the risks involved in contracts and avoid those risks. Based on this rationality assumption, current disclosure laws are predominantly based on rules, which aim to provide disclosees with information regarding future risks. Equipped with this information, disclosees, as rational actors, are assumed to be capable of protecting themselves against future contractual risks.

This Article questions the validity of the assumption that disclosees are rational actors. As the empirical study in this Article shows, franchisees, despite being business people who make large investments in the franchise, suffer from an inherent cognitive constraint known as unrealistic optimism. Due to them being overly optimistic about the future, it is expected that franchisees would systematically discount risk-related information disclosed under disclosure laws.

The broad potential implications of our empirical results are that other disclosees, less sophisticated than franchisees, are also likely to be unrealistically optimistic about disclosed risks. Our results, hence, cast significant doubts over the effectiveness of disclosure laws in protecting disclosees from prospective hazards.

\begin{footnote}{108. \textit{Id.} at 1744.}\end{footnote}