

Economic Inpuiry FEDERAL TRADE COMMISSION **Consumer Protection Economics Symposium** December 7, 2018 | Washington, DC



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Opening Remarks Bruce Kobayashi, Federal Trade Commission

Panel: The State of Consumer Protection Economics





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The State of Consumer Protection Economics: Contributions and Challenges

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Consumer Protection Economics Symposium Federal Trade Commission Washington, DC December 7, 2018

The views presented here are those of the presenter and do not necessarily represent the views of the Federal Trade Commission or any individual Commissioner.

What is Consumer Protection?

Consumer Protection is a broad term:

- What is "the" consumer?
 - People are different, with different goals and constraints.
- What is the consumer being protected from?
 - Harmful practices by firms?
 - Her own decisions, judged by regulators to be harmful to themselves or society?
- How is the consumer being protected?
 - Classic paradigm of consumer protection policy options:
 Status Quo, Inform Consumers, Educate Consumers, Regulate
 - Status Quo, Inform Consumers, Educate Consumers, Regulate Product Characteristics?
 - Additional option to "nudge" using defaults or other new remedies from behavioral economics.

Today, I will borrow Muris' terminology:

What I refer to today as "consumer protection" is coextensive with the FTC's "unfair and deceptive acts and practices" jurisdiction, (cite omitted) which generally can be thought of as policing the market against acts and practices that distort the manner in which consumers make decisions in the market place" (Muris, 2002, p. 3).

Main Points

- FTC economists have contributed to consumer protection policy drawing from many fields of economics.
- But there is a long way to go, especially compared to antitrust.
- Key law & economics principle of *consumer injury* still not well defined.
- Time for those working in the field to develop an "Economics of Consumer Protection Handbook" to refine analysis and transfer learning to the next generation to build upon.

Economist Roles and Contributions to Consumer Protection at the Federal Trade Commission

Federal Trade Commission

- Only federal agency overseeing broad sectors of the economy with the dual mission to
 - Protect Consumers
 - Promote Competition
- Created by Congress in 1914
 - Five Commissioners
 - No more than three Commissioners from same political party
- Approximately 1140 employees with annual budget of approximately \$306 MM
 - \$170 MM to consumer protection mission
 - Remainder to competition mission

Federal Trade Commission



Bureau of Economics



Effective as of 11/20/2018

Division of Consumer Protection

- Established in 1978 -- celebrating our 40th Anniversary!
- Comprised of 26 economists (including three managers) and two research analysts.
- Small compared to role of economists in antitrust and compared to overall resources devoted to consumer protection vs. antitrust.

Division of Consumer Protection

- Contributes to all aspects of the Commission's consumer protection mission:
 - Independent case review
 - Litigation support
 - Expert witnessing
 - Development and review of rules, industry guidelines, and policy
 - Design and conduct of research studies, surveys, and special projects

Relevant Academic Literatures

There is no unifying theme in consumer protection economics . . . The economics of consumer protection involves: (1) the economics of information, a field with emphasis on optimal search, adverse selection, moral hazard, and signaling; (2) law and economics, a field that focuses on contracts, liability schemes, penalties, etc.; and (3) behavioral economics which applies consumer psychology to markets. Various elements of industrial organization (IO), the theory of the firm, welfare economics, household production theory, marketing, and the theory of regulation are also included in the mix . . . Of course the economics of consumer particular form the platform for the application of consumer policy.

(Pautler, 2014)

Policy Research Contributions A Few Examples

Contributions by Federal Trade Commission Economists to Consumer Protection: Research, Policy, and Law Enforcement

Janis K. Pappalardo, Journal of Public Policy and Marketing, Fall 2014

248 Contributions by FTC Economists to Consumer Protection

Title	Authors	Year
Consumer Fraud in the United States, 2011: The Third FTC Survey	Keith B. Anderson	2013
Children's Exposure to Television Advertising in 1977 and 2004: Information for the Obesity Debate	Debra J. Holt, Pauline M. Ippolito, Debra M. Desrochers, and Christopher R. Kelley	2007
Consumer Fraud in the United States: The Second Federal Trade Commission Survey	Keith B. Anderson	2007
Improving Consumer Mortgage Disclosures: An Empirical Assessment of Cur- rent and Prototype Disclosure Forms: A Bureau of Economics Staff Report	James M. Lacko and Janis K. Pappalardo	2007
Summary Report on the FTC Behavioral Economics Conference	Joseph P. Mulholland	2007
Consumer Fraud in the United States: An FTC Survey	Keith B. Anderson	2004
The Effect of Mortgage Broker Compensation Disclosures on Consumers and Competition: A Controlled Experiment	James M. Lacko and Janis K. Pappalardo	2004
Advertising Nutrition and Health: Evidence from Food Advertising 1977-1997	Pauline M. Ippolito and Janis K. Pappalardo	2002
Competition and Consumer Protection Perspectives on Electric Power Regula- tory Reform	John C. Hilke	2000
Survey of Rent-to-Own Customers	James M. Lacko, Signe-Mary McKernan, and Manoj Hastak	2000
Transformation and Continuity: The U.S. Carbonated Soft Drink Bottling Industry and Antitrust Policy Since 1980	Harold Saltzman, Roy Levy, and John C. Hilke	1999
A Generic Copy Test of Food Health Claims in Advertising*	R. Dennis Murphy, Theodore H. Hoppock, and Michelle K. Rusk	1993
Information and Advertising Policy: A Study of Fat and Cholesterol Consump- tion in the United States, 1977–1990	Pauline M. Ippolito and Alan D. Mathios	1990
An Analysis of Department Store Reference Pricing in Metropolitan Washington	Ronald S. Bond and R. Dennis Murphy	1993
The Costs and Benefits of Occupational Regulation ^b	Carolyn Cox and Susan Foster	1999
Health Claims in Advertising and Labeling: A Study of the Cereal Market	Pauline M. Ippolito and Alan D. Mathios	198
How Should Health Claims for Foods Be Regulated? An Economic Perspective ^b	John E. Calfee and Janis K. Pappalardo	198
An Analysis of the Funeral Rule Using Consumer Survey Data on the Purchase of Funeral Goods and Services	Timothy P. Daniel	1983
Regulation of Advertising: Capital Market Effects	Alan Mathios and Mark Plummer	198
Minimum Quality Versus Disclosure Regulations: State Regulation of Interstate Open-ended Investment Company and Common Stock Issues	John C. Hilke	198
Experimental Studies of Markets with Buyers Ignorant of Quality Before Purchase: When Do "Lemons" Drive Out High Quality Products?	Michael Lynch, Ross Miller, Charles R. Plott, and Russell Porter	1980
Product Quality & Information in the Used Car Market	James M. Lacko	198
Generic Substitution and Prescription Drug Prices: Economic Effects of State Drug Product Selection Laws	Alison Masson and Robert L. Steiner	1983
Empirical Approaches to Consumer Protection Economics	Pauline M. Ippolito and David T. Scheffman	198
Improving Consumer Access to Legal Services: The Case for Removing Restrictions on Truthful Advertising ^c	William W. Jacobs, Brenda W. Doubrava, Robert P. Weaver, Douglas O. Stewart, Eric L. Prahl, William R. Porter, Nathaniel Greenspun, and R. Dennis Murphy	198
Comparative Analysis of Cosmetic Contact Lens Fitting by Ophthalmologists, Optometrists, and Opticians	Joseph P. Mulholland, Gary D. Hailey, and Jonathan R. Bromberg	1983
Effects of Restrictions on Advertising and Commercial Practice in the Professions: The Case of Optometry	Ronald S. Bond, John E. Kwoka Jr., John J. Phelan, and Ira Taylor Whitten	198
Consumer Responses to Cigarette Health Informationd	Richard A. Ippolito, R. Dennis Murphy, and Donald Sant	197

"This study was conducted jointly with the Bureau of Consumer Protection's Division of Advertising Practices. "This atticle appears under Issue Papers on the FTC"s database (see http://www.fc.gov/policy/reports/policy-reports/economics-research/issue-papers). "Available online at http://www.fc.gov/sites/default/file.ik/accuments/advocary_documents/ifc.staft.comments/hessific-attific-attific-attific-concerning-regulation-optometric-advertising/9564663 pdf. Notes: Except where otherwise noted, the documents in this table can be found on the FTC's online database of FTC economics research (see http://www.fc.gov/policy/reports/policy-reports/economics-research/economic-reports).

- Field experiment to test the effect of advertising and advertising restrictions on price and quality (Bond et al. 1980)
 - Consumers who lived in relatively less restrictive cities paid less for eye exams and eyeglasses without sacrificing quality

- Econometric analysis of advertising regulations on consumer behavior and product innovation
 - Allowing health claims in food advertising improved healthfulness of cereals and consumer cereal choices (Ippolito and Mathios, 1989)

- Content analysis of the effects of advertising regulation on the flow of information to consumers
 - Collaborated with a marketing research academic to use content analysis to assess the historical effect of advertising regulations (Pappalardo and Ringold 2000)
 - This experience led to the implementation of another content analysis to examine effect of advertising regulations on health information in advertising (Ippolito and Pappalardo 2002)

Surveys and an experiment to study consumer fraud

- National surveys to estimate prevalence of consumer fraud and characteristics of fraud victims (Anderson 2004, 2007, 2013)
- Exploratory experiment to examine traditional and behavioral characteristics of those likely to be deceived (McAlvanah, Anderson, Letzler, and Mountjoy 2015)

 Controlled experiments to assess consumer understanding of mandated disclosures

- Appliance energy label research showing that consumers understand \$ metric and categorical "star" metric can be misleading (See Hastak and Mazis 2014; Farrell, Pappalardo, and Shelanski 2010)
- Mortgage disclosure research showing that government mandated disclosure terms were confusing, leading to people misunderstanding the costs of loans and showing how consumer research substantially improved consumer comprehension (Lacko and Pappalardo 2004, 2007, 2010)

• Economic analysis of privacy

- Theoretical research on the private and social incentives for privacy when sellers can commit to transparent privacy policies that are understood by consumers (O' Brien and Smith, 2014)
- Economic policy analysis of alternative regulatory approaches to privacy (Jin and Stivers, 2017)

- Economic analysis of resort fees (Sullivan, 2017)
 - This paper uses studies of drip and partitioned pricing to assess the likely effect of separatelydisclosed resort fees on consumers, two pricing practices used by online travel agents and hotels to disclose resort fees to consumers.
 - The study concludes that separately-disclosed resort fees likely harm consumers by increasing their search costs and cognitive costs of finding and booking hotel accommodations.

Despite Contributions, Consumer Protection Economics Literature Lags Antitrust Economics

Fig. 1 "Antitrust" vs. "Consumer Protection" in *Econlit*



Fig. 2 "Economics" *plus* "Antitrust," "Competition," or "Consumer Protection" in Google Scholar



Currently, No Handbook of Consumer Protection Economics, or Consumer Injury Guidelines comparable to the Merger Guidelines

Defining and Estimating Consumer Injury from an Economic Perspective

FTC Consumer Protection Policy

- Based on Section 5 of the FTC Act
 - Prohibits "unfair or deceptive acts or practices" in interstate commerce.
- Deception Policy Statement (1983)
 - A deceptive practice is likely to mislead consumers acting reasonably to their detriment.
- Unfairness Policy Statement (1984)
 - Unfair practices result in consumer injury that is (1) substantial, (2) not outweighed by countervailing benefits to competition or consumers, and (3) not reasonably avoidable by consumers.

What Does it Mean . . .

- To be "deceptive?"
- To be "unfair?"
- Meaning of terms is defined through law enforcement and policy statements.

"Consumer Injury" in Deception

Third, the representation, omission, or practice must be a "material" one. The basic question is whether the act or practice is likely to affect the consumer's conduct or decision with regard to a product or service. If so, the practice is material, and **consumer injury** [emphasis added] is likely, because consumers are likely to have chosen differently but for the deception. In many instances, materiality, and hence injury, can be presumed from the nature of the practice. In other instances, evidence of materiality may be necessary.

(Emphasis added, FTC Statement on Deception, FTC, 1983)

"Consumer Injury" in Unfairness

Unjustified **consumer injury** (emphasis added) is the primary focus of the FTC Act, and the most important of the three S&H criteria. By itself, it can be sufficient to warrant a finding of unfairness. The Commission's ability to rely on an independent criterion of **consumer injury** is consistent with the intent of the statute, which was to "[make] the consumer who may be injured by an unfair trade practice of equal concern before the law with the merchant injured by the unfair methods of a dishonest competitor (cite omitted).

The independent nature of the consumer injury criterion does not mean that every consumer injury is legally "unfair," however. To justify a finding of unfairness the injury must satisfy three tests. It must be substantial; it must not be outweighed by any countervailing benefits to consumers or competition that the practice produces; and it must be an injury that consumers themselves could not reasonably have avoided.

(FTC Statement on Unfairness, FTC, 1984)

Economic Approach to Analyzing Deception

- Two stage procedure Pappalardo (1997):
 - First, is the claim misleading?
 - Estimate using controlled, copy-test research with relevant population (not a bunch of lawyers and economists) to test comprehension.
 - Second, estimate the effect of misleading claim on purchase behavior.
 - Compare (1) Deceptive Demand to (2) Non-Deceptive Demand
 - Randomized, controlled experiments using split-cable TV, for example
 - Econometric controls

• Failed to define explicitly how this maps into "consumer injury."

Fig. 3 Information Asymmetry (Boardman et al., 1996)



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Estimating Consumer Injury from Deception

Very little in the economics literature. A few papers include models to assess "consumer detriment" or "consumer loss" from imperfect information, akin to assessing injury from deception.

- Models based on a comparative demand analysis.
- Models use a concept of "welfare" to estimate consumer harm from information problems.
- Models measure detriment comparing outcome under asymmetric information to counterfactual of what consumer would have done absent the information problem.
- Models differ depending upon apparent goal: promote "total welfare" vs. "consumer welfare."
- Models differ in whether they show a price change due to increase in demand due to deception.
- Models tend to use "perfect information" counterfactuals rather than non-deceptive information counterfactuals.

Fig. 4 Consumer Detriment and the Market (Office of Fair Trading, 2000)



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Fig. 5 Consumer Detriment in the Short Run (Hunter et al., 2001)



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Estimating Consumer Injury from Deception

Train notes that he only "... found two papers that describe welfare calculations for this situation: Allcott (2013) and Schmeiser (2014)."

(Train, 2015)

Fig. 6 Consumer Surplus under Imperfect Foreknowledge about Sharing of Data (Train, 2015)



Estimating Consumer Injury

Law & Economics literature defines different damage concepts and examples of how to estimate them (Cooter and Eisenberg, 1985; <u>Reference Manual on Scientific Evidence</u>, Allen et al., 2011):

- Reliance:
 - Restore consumer to same position they would have been in as if the misrepresentation and harm had not existed in the first place.
- Expectations:
 - Compensate consumer with the same economic value she would have received if the firm had performed as promised.
- Opportunity Cost:
 - Compensate consumer based upon the counterfactual value of the next best feasible alternative.

Fig. 7 Consumer Injury under Deception



Example of Injury Estimation in a Deceptive Advertising Case

Advertising Case Study



Volkswagen to Spend up to \$14.7 Billion to Settle Allegations of Cheating Emissions Tests and Deceiving Customers on 2.0 Liter Diesel Vehicles

Settlements Require VW to Spend up to \$10 Billion to Buyback, Terminate Leases, or Modify Affected 2.0 Liter Vehicles and Compensate Consumers, and Spend \$4.7 Billion to Mitigate Pollution and Make Investments that Support Zero-Emission Vehicle Technology

FOR RELEASE

June 28, 2016

For the consumer injury analysis see: Carlson, J., Jin, G. Z, Jones, M., O'Connor, J. and Wilson, N. "Economics at the FTC: Deceptive Claims, Market Definition, and Patent Assertion Entities" (2017) *Review of Industrial Organization* 51(3), 487-513.

Outstanding Questions and Challenges

Hot Questions and Challenges

- Outstanding question is which concept of consumer injury is appropriate for different purposes.
- Clarify how goals of policy organizations differ and what assumptions are implicit in these goals.
 - Distinguish between equity goals and efficiency goals.
 - Goals to promote a truthful information environment and promote competition vs. promoting particular behavior
- Develop a Handbook of the Economics of Consumer Protection to move the Law & Economics of Consumer Protection field forward.

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Panel: The State of Consumer Protection Economics





Economic Inpuiry FEDERAL TRADE COMMISSION **Consumer Protection Economics Symposium** December 7, 2018 | Washington, DC

Is Consumer Protection Economics the Rodney Dangerfield of the FTC?

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Presentation at the FTC Symposium on Consumer Protection Economics, Washington DC, December 7, 2018



Overview: Why does CPE lag behind antitrust economics at the FTC?

- Competition/antitrust economics has a considerably longer intellectual history generally; and earlier Nobel prizes; more research handbooks; longer litigation history
- The history and culture of the FTC has favored antitrust
- The splintering of consumer protection responsibilities across the federal government has not helped the cause of CPE
- Conclusion

Competition/Antitrust Economics

Adam Smith (1776)

On monopoly

- "The monopolists, by keeping the market constantly understocked, by never fully supplying the effectual demand, sell their commodities much above the natural price, and raise their emoluments, whether they consist in wages or profit, greatly above their natural rate."

On collusion

 "People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices."

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August Cournot (1838)

- The first "workhorse" oligopoly model
 - When n =1, the model yields the monopoly outcome
 - When $n = \infty$, the model yields the competitive outcome
 - When n becomes smaller, the outcomes come closer to the monopoly outcome
- The first model of a merger of complementary monopolists; equivalent to a vertical merger
 - Important for understanding "double marginalization"

Joseph Bertrand (1883)

• The other "workhorse" oligopoly model

Subsequent developments

- Alfred Marshall (1890)
 - Book V, Chapter XIV: "The Theory of Monopolies"
- Edwin Chamberlin and Joan Robinson (1920s and 1930s)
 - More oligopoly models
 - Monopolistic/imperfect competition
- Abba Lerner (1934)
- George Stigler (late 1930s)
- Ronald Coase; John Nash; Joe Bain; Tom Schelling; Oliver Williamson; F.M. Scherer; Leonard Weiss; Jean Tirole...

Consumer Protection Economics

Asymmetric information

- George Akerlof; Michael Spence; Joseph Stiglitz: late 1960s and 1970s
- Oliver Hart; Bengt Holmstrom: 1970s and 1980s

Behavioral economics

Daniel Kahneman & Amos Twersky: 1970s
Richard Thaler: late 1970s, 1980s

Experimental economics

- Vernon Smith: 1960s
- Charles Plott: 1970s
- (Experimental economics has also been used to expand IO knowledge)

Economic analysis of tort law

- Ronald Coase (1960)
- William Landes & Richard Posner; Steven Shavell; Mitchell Polinsky: 1970s and 1980s

Some Other Indicia

Nobel Prizes in Economics

- Competition economics
 - Stigler (1982); Nash (1994); Schelling (2005);
 Williamson (2009); Tirole (2014)
- Consumer protection economics
 - Ackerlof, Spence, & Stiglitz (2001); Kahneman (2002);
 Smith (2002); Hart & Holmstrom (2016); Thaler (2017)
- Both
 - Coase (1991)

The Handbook of Industrial Organization: Table of contents

• Vols 1 & 2 (1989)

- Almost entirely about markets and industries; market power; etc.
- Regulation chapters mostly about "economic regulation" (i.e., monopoly regulation)
 - One chapter on health-safety-environment; mostly on environmental regulation
- Vol 3 (2007)
 - More of the same
 - One chapter on advertising

Handbooks of antitrust/competition economics

- Buccirossi (2008)
- Elhauge (2012)
- Blair & Sokol (2015a; 2015b)
- GCR annual "Handbook of Competition Economics", 2008-2019
- GCR annual "Handbook of Competition Enforcement Agencies", 2008-2018

Handbooks of consumer protection economics



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Caveat on handbooks

 Scattered chapters on CPE – but also on competition economics – appear in other specialized handbooks Economists' involvement in antitrust litigation

• Economists were involved in antitrust cases at least as early as the 1910s

- U.S. v. U.S. Steel Co.

- Involvement in the 1970s major antitrust cases
 U.S. v. IBM; U.S. v. AT&T
- The strengthening of the economics groups at the DOJ and the FTC in the 1960s and 1970s

• Growing antitrust involvement since then

- Kwoka & White (1989) ... Kwoka & White (2019)

Economists' involvement in CP litigation

- Are there major cases where economists' involvements have been especially noteworthy?
- Do the major economics consulting firms have a significant CP practice?
- Are there books that have been written about economists' involvement in CP litigation?

History and Culture of the FTC

History & culture matter (1)

- Histories of the FTC
 - Scherer (1990); Winerman (2003; 2005); Kovacic (2009)
- The origins of the FTC in 1914 were embedded in antitrust, business regulation to address "unfair methods of competition"
- "Unfair or deceptive acts or practices in commerce" was added only in 1938 (Wheeler-Lea Act)
- FTC Chairs have often come from an antitrust background
History & culture matter (2)

- Histories of economics at the FTC
 FTC (2003); Paulter (2015; 2018)
- Involvement of economists in FTC activities extend back to the beginnings of the agency
 - To support the antitrust function of the FTC
- Only in the late 1960s did BE economists begin to become involved in CPE activities
- Only in 1978 was the DCP established within BE
- Only in 2015 did the first Director of BE come from a CPE background

History & culture matter (3)

 How encouraging/responsive have the FTC Commissioners and the Directors of BCP been to economics input from BE?

• Are there lessons from the DOJ of the early 1980s?

- DOJ leadership in the early 1980s made clear that economics input mattered
 - The 1982 Merger Guidelines helped
- Private-sector antitrust lawyers began scheduling antitrust economics mini-courses

The Splintering of Consumer Protection Responsibility

Splintering and its consequences

 In addition to the FTC, there are (at least) 20 other federal agencies with consumer/investor/worker protection/safety responsibilities

– And the 50 states and their agencies and...

- Imagine that all of these federal responsibilities were consolidated into only one – or even two (like antitrust) – consumer protection/safety agencies
 - Wouldn't there be an appreciably larger agglomeration of CP economists?
 - Wouldn't that agglomeration have more heft/clout/influence than is true today?

Conclusion

- Important considerations
 - The longer intellectual development of competition analysis
 - The history and culture of the FTC
 - The splintering of CP responsibilities
- Implications
 - The continued elapsing of time may help
 - Strategize about the culture
 - Consider a "CP advocacy" program
- Take the long view!

Panel: The State of Consumer Protection Economics





Economic Inpuiry FEDERAL TRADE COMMISSION **Consumer Protection Economics Symposium** December 7, 2018 | Washington, DC

Economics in CP

Panel discussion notes Joseph Farrell, UC Berkeley FTC conference, Dec 2018

Why does AT embrace economics so much more than CP does?

- Larry White's paper: it's history
- Alternatives include:
 - what the courts demand
 - What it's like on front lines of enforcement

(Stereo)typical CP investigation

- If harm, it's ongoing (+past)
- Conduct often seems shocking
- Many more perps without market power can harm consumers via scams, than firms (necessarily with market power?) can do so through AT problems

(Stereo)typical AT investigation

- Probably a merger...just by numbers
- HSR: short schedule but no ongoing harm
- Issues often seem subtle
- Pervasive atmosphere that markets mostly work; look out for exceptions

How economists think (way stereotypical)

- Stress tradeoffs
- Prove-it mentality
- Markets mostly work; look out for exceptions

When AT is like CP

- One class of AT cases feels more like stereotyped CP case
- Hard-core price fixing
- What if FTC brought 6 AT cases a week, 5 of them being price fixing?

On a more positive note...

 Economics and BE well placed to implement synergies between CP and AT

– What does it take for markets to work well?

- This really ought to be a core strength of FTC
- Don't let sociology of professional styles get in the way
- Easier said than done, I know!

Panel: The State of Consumer Protection Economics





Economic Inpuiry FEDERAL TRADE COMMISSION **Consumer Protection Economics Symposium** December 7, 2018 | Washington, DC

Break 10:40-11:00am Please be reminded that no food or drinks are allowed in the Auditorium.



Economic Inpuiry FEDERAL TRADE COMMISSION **Consumer Protection Economics Symposium** December 7, 2018 | Washington, DC



Economic Inpuiry FEDERAL TRADE COMMISSION **Consumer Protection Economics Symposium** December 7, 2018 | Washington, DC

Paper Session 1

Voluntary Disclosure and Earnings Expectations in Multi-level Marketing

> Stacie Bosley Sarah Greenman Samantha Snyder

Federal Trade Commission Bureau of Economics

Consumer Protection Economics Symposium December 7, 2018



CONSUMER PROTECTION ISSUES IN MULTI-LEVEL MARKETING

Business Opportunity Rule Mandatory disclosure, MLM largely exempted

FTC Act

Regulatory issues

Improper product claims

Unlawful compensation structure

Misleading earnings representations

INCOME REPRESENTATIONS

Explicit or implied

Words or images

Hypothetical earnings scenarios

Reasonable basis

Representative

Testimonials with outcomes for majority

"an MLM should

(i) direct its participants not to make false, misleading, or unsubstantiated representations and

(ii) monitor its participants so they don't make false, misleading, or unsubstantiated representations"

FTC Business Guidance Concerning Multi-Level Marketing (Jan 2018)

VOLUNTARY DISCLOSURE IN MLM

Adoption Goal Design Impact Static vs. Dynamic

4LIFE® INCOME DISCLOSURE STATEMENT



EXAMPLES

2016

The 4Life mission of Together, Building People® through science, success, and service extends all over the world, with offices in 24 countries and business operations in over 50 countries. People join 4Life for a variety of reasons. Many enrol to enjoy the health benefits of exclusive 4Life Transfer Factor® products. Others sign up to earn part-time income. A select few join 4Life to build full-time businesses. 4Life distributors benefit from minimal start-up costs, no requirements to purchase large amounts of inventory, and the company's money-back guarantee.

There are two fundamental ways in which a distributor can earn compensation. First, a distributor can receive rebates and earn retail profit on products that are purchased for resale and sold to customers. Second, a distributor can earn commissions on the sale of products by other distributors in his or her downline sales organization.

The income statistics below are for all distributors who received a commission payment from 4Life in 2016. The amounts do not represent distributor profits, as they do not consider expenses incurred by 4Life distributors in the promotion of their businesses. Also, these figures do not include retail profit earned by 4Life distributors from reselling 4Life products.

	Monthly commission payments Average Low High		Average annual commissions	Percent of distributors who earned a commission	Percent of all distributors	
Associates	\$20	< \$10	\$1,240	\$240	4.0%	1.0%
Leaders	\$59	< \$10	\$28,955	\$708	88.8%	19.9%
Diamonds	\$613	\$11	\$4,998	\$7,356	5.4%	1.2%
Presidential Diamonds	\$2,780	\$128	\$14,719	\$33,360	1.4%	<1%
International Diamonds	\$9,340	\$1,450	\$56,655	\$112,080	<1%	<1%
Gold International Diamonds	\$38,161	\$11,789	\$180,691	\$457,932	<1%	<1%
Platinum International Diamonds	\$167,127	\$82,518		\$2,005,524	<1%	<1%

The income statistics above are for all worldwide distributors who were eligible to earn commissions during 2016. In 2016, approximately 80% of all distributors received no income at all. These distributors who received no income are comprised of distributors who are inactive, but have not yet been terminated due to inactivity, distributors whose customer base and downline sales organization purchased product in amounts that did not qualify them to earn commission payments, or distributors who did not generate sales volume by building a customer base or downline sales organization.

The earnings of the distributors in this chart are not necessarily representative of the income, if any, that a 4Life distributor can or will earn through his or her participation in the 4Life Life Rewards Plan. These figures should not be considered as guarantees or projections of your actual earnings or profits. Any representation or guarantee of earnings would be misleading. Success with 4Life results only from successful sales efforts, which require hard work, diligence and leadership. Your success will depend upon how effectively you exercise these qualities.

USANA-A Revolutionary Way to Create Wealth

The following Average Income chart demonstrates the rewarding opportunity USANA offers its Associates.

Title	% of Group	% of Everyone	Weekly Average	Yearly High	Yearly Low	Yearty Average (Wkiy Avg x 57)
FULL-TIME ASSOCIATES						
Star Director	5%	< 1%	\$ 10,609	\$ 1,105,246	\$ 367,051	\$ 551,660
Diamond Director	5%	< 1%	\$ 5,621	\$ 361,640	\$ 225,040	\$ 292,315
Emerald Director	10%	< 1%	\$ 4,075	\$ 259,743	\$ 98,295	\$ 211,909
Ruby Director	20%	< 1%	\$2,544	\$ 193,440	\$ 91,081	\$ 132,299
Gold Director	59%	.1%	\$ 1,235	\$ 175,335	\$ 21,450	\$ 64,232
			PART-TIME ASSO	CIATES		
Silver Director	.3%	< 1%	\$ 866	\$ 93,264	\$ 26,273	\$ 45,009
Bronze Director	.4%	.1%	\$ 565	\$ 74,657	\$ 17,813	\$ 29,369
Director	.7%	.2%	\$417	\$ 41,600	\$ 11,031	\$ 21,685
Achiever	2%	.7%	\$278	\$ 52,000	\$ 8,432	\$ 14,451
Builder	10%	4%	\$ 164	\$ 33,800	\$ 5,720	\$ 8,549
Believer	59%	21%	\$ 102	\$ 41,303	\$ 1,841	\$ 5,283
Sharer	28%	10%	\$ 44	\$ 111,429	\$ 1,042	\$ 2,303

\$91,800 is the average yearly income for an established, full-time USANA Associate (Gold Director and above). \$23,225 is the annual average of those who earned as little as one commission check each month. Surveys show that 83% of all Associates self-report they joined USANA to "improve their health." Of those remaining, 21% earned a check at least once a month even though 56% reported they were not joining to "replace their full-time income." Of those that were, 41% have been Associates for at least one year and 56% are considered full time with the title of Gold Director or above. These figures shown should not be considered as guarantees or projections of your actual earnings or profits. Success with USANA results only from successful sales efforts, which require hard work, diligence, and leadership. If you include all 126,146 with the title of Associate, which includes, Associates not actively building a business (acting as wholesale buyers), Associates who just joined (as little as one day), and those who are just beginning to build their customer base, the average yearly income is still \$724.27, with more than one in three earning a check and currently 115 Associates who are lifetime Million Dollar Farners.



With 115 Million Dollar Earners, it's no wonder that USANA Health Sciences is the **#1 Distributor's Choice** "Best Company" for **ten consecutive years** in *NetWork Marketing Today & the MLM Insider*.

EXAMPLE

	Monthly commission payments Average Low High		Average annual commissions Percent of distributors who earned a commission		Percent of all distributors	
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LAB EXPERIMENT

Question: Impact of disclosure on interest and earnings expectations

Control Group	Treatment Group I	Treatment Group 2
 Marketing materials No income disclosure 	 Marketing materials Company-produced disclosure 	 Marketing materials Augmented disclosure

Interest: "Given the information that you have seen/heard, how interested would you be in attending an information session or receiving more information about the XXX business opportunity?"

Expected Earnings and Expenses Questions

Now suppose you did sign up as a XXX Associate. How much money do you think you would earn in a TYPICAL YEAR, before subtracting any expenses?

(Typical earnings in a year from working as a XXX Associate)

What is the MOST you think you could earn as a XXX Associate in a year? (Highest earnings in a year from working as a XXX Associate)

What is the LEAST you think you could earn as a XXX Associate in a year? (Lowest earnings in a year from working as a XXX Associate)

What do you think your chances would be of earning \$6,000 or more in a year (equivalent to \$500 or more per month)? 0%, 1-9%, 10-19%, 20-29%, 30-39%, 40-49%, 50-59%, 60-69%, 70-79%, 80-89%, 90-99%, 100%

How much money do you think you would pay in EXPENSES in a TYPICAL YEAR as a XXX Associate? (Expenses could include product purchases, travel, company training or conventions, product brochures, etc.)









Dependent Variable (log)	Interest	Typical Earnings	Min Earnings	Max Earnings	Chance \$6000	Expenses
Treatment 1 (Company Disclosure)	0.048	-1.215	-0.773	-0.620	-0.275	-0.280
	(0.42)	(3.13)***	(1.25)	(1.55)	(1.95)*	(1.11)
Treatment 2 (Augmented Disclosure)	0.012	-1.177	-1.212	-0.857	-0.362	-0.256
	(0.11)	(2.90)***	(1.80)*	(2.05)**	(2.67)***	(0.76)
Female	0.088	-0.232	-0.393	-0.149	-0.093	-0.015
	(0.85)	(0.58)	(0.64)	(0.33)	(0.70)	(0.05)
Age	-0.093	-0.135	-0.195	-0.115	-0.071	0.025
	(5.81)***	(2.12)**	(1.46)	(1.31)	(3.48)***	(0.52)
Caucasian	0.121	0.417	-0.878	0.500	0.087	0.331
	(1.15)	(1.21)	(1.72)*	(1.26)	(0.67)	(1.04)
Hispanic	0.082	0.607	1.253	0.422	0.141	-0.538
	(0.52)	(1.48)	(1.83)*	(0.99)	(0.78)	(1.15)
STEM	0.169	-0.584	-1.271	-0.623	-0.103	-0.305
	(1.06)	(1.16)	(1.61)	(1.05)	(0.62)	(0.64)
Business or Economics	0.299	0.533	0.448	0.634	0.167	-0.263
T 1 1 1 1	(2.84)***	(1.31)	(0.73)	(1.40)	(1.23)	(0.77)
Religiosity	0.111	-0.061	0.320	-0.052	0.066	-0.067
м. с	(2.56)**	(0.47)	(1.40)	(0.38)	(1.17)	(0.63)
Numeracy Correct	0.058	0.147	-0.108	-0.039	-0.012	-0.139
Einen ist Literature Comment	(1.07)	(0.88)	(0.39)	(0.21)	(0.18)	(1.06)
Financial Literacy Correct	-0.102	-0.209	-0.032	0.017	-0.038	-0.161
EV Correct	(1.95)* -0.238	(1.39) -0.034	(0.10) -0.288	(0.10) -0.248	(0.53) -0.130	(1.29) 0.157
E v Confect	(2.29)**	(0.10)	(0.52)	(0.69)	(0.94)	(0.67)
Past MLM Experience - Other	-0.135	0.016	0.234	-0.292	-0.157	-0.366
r ast millior Experience - Omer	(1.45)	(0.05)	(0.46)	(0.94)	(1.30)	(1.45)
Past MLM Experience - Self	0.020	0.524	-0.312	0.761	0.062	0.601
Tast MENT Experience - Sett	(0.18)	(1.64)	(0.50)	(2.08)**	(0.42)	(2.00)**
Willingness to take Risks - Investment	0.006	-0.010	-0.062	0.033	-0.000	0.001
winnighess to take resks - investment	(0.52)	(0.30)	(1.05)	(0.80)	(0.03)	(0.02)
Willingness to take Risks - Gambling	-0.024	-0.049	-0.061	-0.034	-0.034	-0.046
···	(1.60)	(1.20)	(0.86)	(0.70)	(1.96)*	(1.61)
Willingness to take Risk - Work	-0.000	-0.039	0.094	-0.109	0.000	-0.010
	(0.02)	(0.66)	(0.88)	(1.55)	(0.00)	(0.16)
Constant	2.700	11.504	9.400	12.291	2.911	7.863
	(6.23)***	(8.18)***	(2.96)***	(7.08)***	(5.13)***	(6.30)***
R ²	0.26	0.17	0.15	0.12	0.17	<u>`0.09</u>

Estimation Results for Ordinary Least Squares Analysis – Intent to Treat (n=198) [†]						
Dependent Variable (log)	Interest	Typical Earnings	Min Earnings	Max Earnings	Chance \$6000	Expenses
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	(0.11)	(2.90)***	(1.80)*	(2.05)**	(2.67)***	(0.76)

Findings

- No impact on interest or expense estimate
- Lower typical income expectations, though not reduced to EV
- Augmented version, greater impact for some judgments
- Risk of increase in upper bound
- Correlates of interest

Limitations

- Lab, not field
- Prompted review of disclosure
- Asked to consciously estimate earnings and expenses
- Not embedded
- Cool frame of mind
- Did not include most aggressive recruiting tactics

IMPLICATIONS



Overcoming Optimism: A Discussion of "Voluntary Disclosure and Earnings Expectations in Multi-Level Marketing"

Linda Court Salisbury

FTC Consumer Protection Economics Symposium December 7, 2018 Washington, DC



Information disclosures increased accuracy of earnings estimates, but....

	Experiment Group					
	Company Augme					
	Control	Disclosure	Disclosure			
Typical Expected Earnings	\$11,436	\$3,309	\$3,877			
Minimum Expected Earnings	\$3,949	\$556	\$893			
Maximum Expected Earnings	\$30,846	\$91,688	\$76,610			
Chance of Earning \$6,000	4.37	3.39	3.05			
Expected Value of Earnings = \$1,500						

- Optimistic bias
- Better-than-average effect

Can disclosures overcome optimism?

- Positive mood increases optimistic bias
- Perceived control increases optimistic bias
- Perceived risk decreases optimistic bias




Economic Inpuiry FEDERAL TRADE COMMISSION **Consumer Protection Economics Symposium** December 7, 2018 | Washington, DC

Paper Session 1

Which Communities Complain to Policymakers? Evidence from Consumer Sentinel

Devesh Raval

Federal Trade Commission

Consumer Protection Economics Symposium

Disclaimer:

The opinions expressed here are those of the authors and not necessarily those of the Federal Trade Commission or any of its Commissioners.

Consumer Sentinel Database

Millions of Complaints per year

• Collected from Government Agencies, BBBs, others

• Topics: Fraud, Other, Identity Theft, DNC

Consumer Sentinel Database



Questions for this talk

• Who complains to the Consumer Sentinel?

• What do they complain about?

• How do complaint rates compare to victimization rates?

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• What do they complain about?

• How do complaint rates compare to victimization rates?

Consumer Demographics

• Consumer Zip Code matched to ACS 2008-2012 Demographics

• Race: Percent Black, Percent Hispanic, Percent Asian

• Culture: Percent College Graduate, Degree of Urbanization

• Cost of Time: Median Household Income, Unemployment Rate, Median Age, Household Size

Regression Specification

• Examine how per capita complaint rate for Consumer Sentinel varies with demographics

• Data from 2012 - 2015

• Specification:

 $\log(E(y_{szt})) = \beta D_{sz} + \eta \log Population + \gamma_t + \delta_s$

Introduction

Complaint rates for All Contributors



Complaint rates by Contributors



How do complaint rates vary across areas?

• Higher rates for black, college educated, higher unemployment, higher income areas

• Lower rates for Hispanic, rural, greater HH Size areas

• Different patterns for CFPB

Questions for this talk

• Who complains to the Consumer Sentinel?

• What do they complain about?

• How do complaint rates compare to victimization rates?

Fraud vs. Other Complaints



Fraud vs. Other Complaints, FTC only



Finance Related Categories



Non-Finance Related Categories



What Determines Consumer Complaining Behavior?

• Who complains to the Consumer Sentinel?

• What do they complain about?

• How do complaint rates compare to victimization rates?

Why do consumers complain?

- Higher rates of consumer complaints could reflect:
 - Higher Propensity to Complain

Worse Consumer Experience

• Typically difficult to disentangle these two stories

Raval, Marketing Science (forthcoming)

• Victim Datasets matched to Consumer Sentinel Network complaints

• Compare victim and complaint demographics

• Heavily minority areas complain less

Heavily Minority Areas Less Likely to Complain



Introduction

Average 2015 Complaint Rates by Minority Share



Introduction

Weighted Average 2015 Complaint Rates by Minority Share



Conclusion

- Different complaint rates by demographics across areas
- Different patterns for:
 - CFPB compared to BBBs, FTC
 - Fraud vs. Other complaints

• Have developed weights to use complaint rates to examine victimization differences

Consumer Protection Economics Symposium

Discussion of:

Which Communities Complain to Policymakers? Evidence from Consumer Sentinel

Erez Yoeli MIT Sloan School of Management



Economic Inpuiry FEDERAL TRADE COMMISSION **Consumer Protection Economics Symposium** December 7, 2018 | Washington, DC

Paper Session 1

Lunch 12:00-1:00pm Please be reminded that no food or drinks are allowed in the Auditorium.



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Panel: Analysis of Consumer Welfare & Consumer Protection Policy

Behavioral Welfare Evaluation of Consumer Protection Policies

Hunt Allcott (New York University, Microsoft Research, and NBER)

December 2018

Acknowledgment and disclaimer

I thank the Sloan Foundation for financial support.

This paper reflects the authors' own analyses and calculations based in part on data reported by Nielsen through its Homescan, RMS, and PanelViews services for food and beverage categories over 2006-2016, for all retail channels in the U.S. market. The conclusions drawn from the Nielsen data are those of the authors and do not reflect the views of Nielsen. Nielsen is not responsible for, had no role in, and was not involved in analyzing and preparing the results reported herein.

 Motivation for consumer protection: consumers might not act in their own best interest

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- ▶ How to *evaluate* and *optimally set* consumer protection policies?

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- ▶ How to *evaluate* and *optimally set* consumer protection policies?
- Traditional benefit-cost analysis: cannot engage with policymakers' arguments
 - ▶ Revealed preference ⇒ consumer protection is welfare-reducing by assumption

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- Impact evaluation: how to combine conflicting results?

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- How to evaluate and optimally set consumer protection policies?
- Traditional benefit-cost analysis: cannot engage with policymakers' arguments
 - ▶ Revealed preference ⇒ consumer protection is welfare-reducing by assumption
- Impact evaluation: how to combine conflicting results?
- Example: payday lending ...
 - increases financial hardship, food stamp use, etc. (Melzer 2011, 2016)
 - decreases military readiness (Carrell and Zinman 2014)
 - decreases foreclosures after natural disasters (Morse 2011)
 - reduces alternative high-cost borrowing (Bhutta, Goldin, and Homonoff 2016; Zinman 2010)
 - increases alternative high-cost borrowing (Gathergood, Guttman, and Hunt 2015)
 - has no statistical effect on credit scores (Bhutta, Skiba, and Tobacman 2015)

Behavioral welfare analysis

 Bernheim and Rangel (2009), Gruber and Koszegi (2004), Handel (2013), Grubb (2015), Laibson et al. (2015), Allcott and Taubinsky (2015), etc.
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- Use "refinements" of revealed preference

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- Ask: what mistakes are people allegedly making?
 - Uninformed?
 - Not paying attention to all consequences?
 - Present biased?

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- Measure "true" preferences using only decisions made in "mistake-free" conditions
 - Informed
 - Attentive
 - Choosing in advance (controversial)

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 - Informed
 - Attentive
 - Choosing in advance (controversial)
- Set policy to maximize welfare given "true" preferences

Today's talk

- Theory, in pictures
- ► Two examples

Introduction Theory, in pictur	s Energy efficiency		
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Theory, in pictures

Illustrating consumer bias



Hunt Allcott (NYU, MSR, and NBER)

Illustrating consumer bias



Illustrating consumer bias



Internality correction benefit from sin tax



Internality correction benefit from sin tax



Internality correction benefit from sin tax



Empirical application 1: Subsidies and bans on incandescent lightbulbs Allcott and Taubinsky (2015, AER)

The energy efficiency policy debate



- What explained low CFL market shares?
 - Rational preferences?
 - Bias from imperfect information or inattention?

Consumer protection rationale

Incandescent lightbulbs continue to sell remarkably well because, if their energy costs are ignored, they appear cheap ... Consumers must therefore gather information and perform a reasonably sophisticated calculation to compare the life-cycle costs of [incandescents] and CFLs. But many lack the skills.

-Regulatory Impact Statement for Australia's ban on energy inefficient lightbulbs

Lightbulb energy efficiency policy

Subsidies

 Utilities spent at least \$252 million subsidizing and promoting compact fluorescent lightbulbs (CFLs) in 2010 (U.S. DOE 2010)

Bans

- Energy Independence and Security Act of 2007
- Argentina, Australia, Brazil, Canada, China, Cuba, the European Union, Israel, Malaysia, Russia, and other countries have banned some or all incandescent light bulbs.

Behavioral welfare analysis of energy efficiency policy

- What mistakes are people allegedly making?
 - Uninformed and inattentive to energy costs
 - ► (+ externalities)

Behavioral welfare analysis of energy efficiency policy

- What mistakes are people allegedly making?
 - Uninformed and inattentive to energy costs
 - ► (+ externalities)
- Measure "true" preferences using only decisions made in "mistake-free" conditions
 - Randomized information provision experiments

In-store experiment

	where I sit incandescents	
--	---------------------------	--

Bulb Package Cost Comparison

	Incandescent	CFL	CFL Savings
Yearly Energy Costs	\$5	\$1	\$4
Energy Costs for 8,000 hours	\$48	\$11	\$37
Bulb Costs for 8,000 hours	\$8	\$4	\$4
Total Costs for 8,000 hours	\$56	\$15	\$41

Costs are \$41 less over lifetime of CFL bulb package.



- CFL bulb lasts around 8,000 hours vs. 1,000 hours for an Incandescent bulb

- Energy Cost = bulb wattage * bulb count * usage hours * (kWh cost/1000)

2x2 experiment: Randomize info (iPad) and prices (rebate card)

Online experiment

CFLs last longer than incandescents. At average usage:

- · Incandescents burn out and have to be replaced every year.
- CFLs burn out and have to be replaced every eight years.

If one incandescent bulb costs \$1 and one CFL costs \$4, this means that the total purchase prices for eight years of light are:

- · \$8 for incandescents
- · \$4 for CFLs

Also, CFLs use less electricity than incandescents. At national average usage and electricity prices:

- · A standard (60-Watt) incandescent uses \$6 in electricity each year.
- · An equivalent CFL uses \$1.50 in electricity each year.

Thus, for eight years of light, the total costs to purchase bulbs and electricity would be:

- · \$56 for incandescents: \$8 for the bulbs plus \$48 for electricity
- . \$16 for a CFL: \$4 for the bulbs plus \$12 for electricity

The graph below illustrates this:



Treatment and control demand curves



Effects of information on WTP for CFLs



Welfare effects of lightbulb subsidy or ban



Empirical application 2: Sugar-sweetened beverage taxes Allcott, Lockwood, and Taubinsky (2018)

The soda tax debate



Source: University of North Carolina Global Food Research Program

Behavioral welfare analysis of soda taxes

- What mistakes are people allegedly making?
 - Uninformed about health costs
 - Imperfect self-control
 - ► (+ externalities)

Behavioral welfare analysis of soda taxes

- What mistakes are people allegedly making?
 - Uninformed about health costs
 - Imperfect self-control
 - ► (+ externalities)
- Measure "true" preferences using only decisions made in "mistake-free" conditions
 - "Counterfactual normative consumer": measure bias proxies, predict choices made in absence of bias

Nutrition knowledge vs. consumption



Self-control vs. consumption



Nutrition knowledge vs. income



Self-control vs. income



Share of consumption explained by bias



Average marginal bias by income



Welfare effects of optimal soda tax



Bias measurement is both necessary and difficult

- Bias measurement is both necessary and difficult
- Necessary: we have no other way of quantitatively setting and evaluating optimal consumer protection policies
Conclusion

- Bias measurement is both necessary and difficult
- Necessary: we have no other way of quantitatively setting and evaluating optimal consumer protection policies
- Difficult: serious empirical concerns
 - Did we measure the right kind of bias?
 - Information provision: what information to provide?
 - External validity of surveys and experiments
 - Unconfoundedness in non-experimental studies

Conclusion

- Bias measurement is both necessary and difficult
- Necessary: we have no other way of quantitatively setting and evaluating optimal consumer protection policies
- Difficult: serious empirical concerns
 - Did we measure the right kind of bias?
 - Information provision: what information to provide?
 - External validity of surveys and experiments
 - Unconfoundedness in non-experimental studies
- Good news: expanding toolkit of behavioral economics tools for bias measurement



Economic Inpuiry FEDERAL TRADE COMMISSION XXXXXXXXXX **Consumer Protection Economics Symposium** December 7, 2018 | Washington, DC

Panel: Analysis of Consumer Welfare & Consumer Protection Policy



Consumer Response to Information: Evidence from a Field Experiment of Calorie Labels on Restaurant Menus

John Cawley

FTC Consumer Protection Economics Symposium

December 7, 2018

Outline

- Overview of the neoclassical economics and behavioral economics of information
- Results from an RCT of calorie labels on restaurant menus
 - Calorie labels as approach to diet-related chronic disease
 - Hypothesized effects of calorie labels on menus
 - Methods: field RCT in two restaurants
 - Empirical models
 - Empirical results
 - Policy implications

Neoclassical Economics of Information

- How consumers respond to information is a classic topic in economics; e.g.:
 - Imperfect information about price; can be addressed by consumer search and product advertising (Stigler, 1961)
 - Imperfect information in health care markets can lead to adverse selection (Arrow, 1963) and moral hazard (Pauly, 1968)
 - Imperfect information about product quality can result in bad quality driving out the good (Akerlof, 1970)
 - Imperfect information about workers; can be addressed by signaling by workers, screening by employers (Spence, 1973)

Behavioral Economics of Information

- Dual-process model of decision-making (Loewenstein and O'Donoghue, 2005):
 - Deliberative process (neocortex): more rational, farsighted more responsive to information
 - Affective process (limbic system): more impulsive, emotional, myopic – less responsive to information
- Relative strength of each process may be affected by:
 - "Cues" that can push one into a "hot" state in which affective process dominates (Bernheim & Rangel, 2004)
 - Finite/depletable willpower (Ozdenoren et al., 2012)
 - Decision fatigue (Linder et al., 2014; Dai et al., 2015; Danziger et al., 2011)

Evidence on Consumer Responsiveness to Health Information

- Report cards for cardiac surgeons (Dranove et al., 2003)
 - Led surgeons to selection against severely ill patients
- "America's Best Hospitals" (Pope, 2009)
 - Those with better rankings (controlling for quality score) attract more patients
- HIV risk (Dupas, 2011)
 - Girls switched from unprotected sex with older men to protected sex with younger men, reduction in teen pregnancy
- Restaurant hygiene report cards (Jin and Leslie, 2003)
 - Better hygiene reports translate into higher restaurant revenue
- Allowing health claims in food advertising (Ippolito and Mathios, 1990, 1995)
 - Reduction in saturated fat from all sources, increase in fiber from cereals
- Nutrition Facts panel (Mathios, 2000)
 - Highest-fat salad dressings lost market share after info disclosure

Evidence on Consumer Responsiveness to Health Information "Nudges"

- Encouragement on receipt to use personalized healthful substitutions during next visit to burger restaurant (Bedard and Kuhn, 2015)
 - Share of sales of encouraged items rose but no significant change in calories or fat
- Social norms feedback to doctors on prescribing
 - Antibiotics in UK (Hallsworth et al., 2016) modest reduction
 - Schedule II drugs in US (Sacarny et al., 2016) no effect

Important Questions

- Should policy try harder to influence the affective (rather than deliberative) system?
 - If worried about excessive consumption, is affective system usually in control at that time?
 - Graphic warning labels on cigarettes (FDA requirement blocked by courts in 2012)
- How should information be conveyed to make it most useful/influential?
 - E.g. rather than list grams of fat, use "traffic light" to indicate healthiness

Motivation for Calorie Labels

- Poor diets contribute to chronic disease
 - Among U.S. adults, 35% have CVD disease, 29% have hypertension, 16% have hyperlipidemia, 12% have diabetes (USDA, 2015)
- Rise in the prevalence of obesity and diabetes in the U.S.
 - Obesity in adults rose from 15.1% in 1976-80 to 39.6% in 2015-16 (NCHS, 2014, 2017)
 - Diabetes in adults rose 176% from 1980-2014 (NCD Risk Factor Collaboration, 2016)
- Americans spend 43.1% of their food dollars and consume onethird of their calories away from home (Guthrie et al., 2013; USDA, 2017)
 - People tend to underestimate number of calories in restaurant food (Block, 2013; Elbel, 2011)
 - Food-away-from-home associated with higher intake of calories, fat, saturated fat, cholesterol, and sodium (e.g. An, 2016)

Trends in Adult Obesity Prevalence

Figure 2. Obesity rates



Source: OECD, Obesity Update, 2014.

Trend in Obesity Prevalence, U.S.

Figure 5. Trends in obesity prevalence among adults aged 20 and over (age adjusted) and youth aged 2–19 years: United States, 1999–2000 through 2015–2016



Significant increasing linear trend from 1999-2000 through 2015-2016.

NOTES: All estimates for adults are age adjusted by the direct method to the 2000 U.S. census population using the age groups 20–39, 40–59, and 60 and over. Access data table for Figure 5 at: https://www.odc.gov/nchs/data/databriefs/db288_table.pdf#5.

SOURCE: NCHS, National Health and Nutrition Examination Survey, 1999-2016.

Source: NCHS (2017). Data: NHANES 1999-2016

Motivation for Calorie Labels

- Calorie labels on restaurant menus recommended as way of providing consumers with information that can improve their dietary choices
 - IOM (2005, 2012)
- Such laws passed by:
 - Cities: NYC, Nashville, Philadelphia
 - Counties: King County WA (Seattle), others in MD, OR, NY
 - States: CA, ME, MA, OR suspended
- Voluntarily implemented by McDonalds, Subway, Panera, Yum Brands (KFC, Taco Bell, Pizza Hut), Chick-fil-A, Starbucks
- Nationwide law for calorie labels on menus of chain restaurants took effect May 7, 2018
 - Supported by National Restaurant Association

Previous Literature: Fast Food Restaurants

- Elbel et al. (2009): NYC menu label law. Street intercept of fast food purchases in NYC vs control city (Newark). DD model: no detectable change in calories purchased. Confirmed in follow-up study: Cantor et al. (2015)
- Bollinger et al. (2011): NYC menu label law. NYC vs control cities (Boston, Phila.) Starbucks database. Menu labels reduced calories by 14.4 (5.8%) all from food, not beverages
- Finkelstein et al. (2011): King County WA menu label law, with adjacent counties as controls. Sales data from one Mexican fast food chain. DD model: no detectable impact of menu labels on calories ordered.

Field RCT of Calorie Labels (Cawley, Susskind, Willage, 2018)

- Randomized controlled field experiment conducted in two fullservice, sit-down restaurants
- Large sample size: N=5,551
 - Crockett et al. (2018): 3 RCTs in restaurants, total N=1,877
 - Bleich et al. (2017): "data from well-powered RCT field experiments...are needed" (p. 2042)
- Rich data:
 - Individual-level orders
 - Sharing of items recorded by server
 - Detailed characteristics of food: # calories, nutrients, etc.
 - Detailed information on restaurant experience (server, table, seat, size of party)
 - Survey data so have X of consumers

Hypotheses

- If consumers systematically underestimate the calorie content of away-from-home food, calorie labels may result in patrons ordering:
 - Fewer calories overall
 - Fewer courses (perhaps especially appetizers and desserts)
 - Fewer calories within each course

Hypotheses

- If consumers have "classical" error in their calorie estimates, then when they are informed they may be:
 - Less likely to order items they previously underestimated
 - More likely to order items they previously overestimated
 - ... with ambiguous effect on total calories
- Consumers will be more supportive of calorie labels on menus after they experience them
 - Contrast: theory of strategic self-ignorance (Thunstrom et al., 2016)

Methods: RCT

- Venues: two full-service, sit-down restaurants located on the Cornell campus and open to the public
- Restaurant A:
 - 38 tables
 - Serves all meals (but we examine dinner only)
 - Average patron age is 42.6; 17% are college students

- Restaurant B:
 - 16 tables
 - Serves dinner only
 - Average patron age is 24.4; 62% are college students

Methods: RCT

- Upon coming to maître d', entire party randomized (via Randomizer smartphone app) to T or C
 - C: gets usual menu
 - T: gets menu with calorie labels
 - RA records whether party is in T or C group



Methods

- At conclusion of meal, RA approaches and asks each individual to complete a survey
- Each party's "ticket" (restaurant order receipt) stapled to their surveys; data entered by RAs
 - Shared items are noted by server
- Merged with data on calories and nutrients, price, cost of ingredients
 - ADACO software used to calculate raw materials cost of recipes
- Experiment approved by Cornell IRB (protocol ID # 1509005830)



Source of Calorie Information: MenuCalc

- Recipe nutrition analysis software designed for restaurants and food professionals
 - In partnership with National Restaurant Association
 - Uses USDA's nutritional database for 18,000 ingredients
 - Takes into account loss of nutrients due to cooking
- User enters recipe, # servings, and software outputs calories and nutrients per serving, Nutrition Facts panel MenuCalc[®]



Control Menu: Appetizers

Starters

tomato soup basil oil, cheddar toast 6
brussels sprouts caramelized shallots, popped corn, honey water 6
truffle fries truffle oil, parmesan, parsley, garlic aioli 8
calamari stir-fried, sriracha sauce, red peppers, peanuts, red onion, thai basil 8
wontons chicken, scallion, cabbage carrot, korean dipping sauce 7
wings chicken wings, celery, sweet-spicy korean sauce 8

Control and Treatment Menus: Appetizers

Starters

tomato soupbasil oil, cheddar toast6brussels sproutscaramelized shallots, popped corn, honey water6truffle friestruffle oil, parmesan, parsley, garlic aioli8calamaristir-fried, sriracha sauce, red peppers, peanuts, red onion, thai basil8wontonschicken, scallion, cabbage carrot, korean dipping sauce7wingschicken wings, celery, sweet-spicy korean sauce8

Starters

tomato soup basil oil, cheddar toast /	calories 720 /	6			
brussels sprouts caramelized shallots,	popped corn,	honey water /	calories 36	5076	
truffle fries truffle oil, parmesan, pars	ley, garlic aioli	/ calories 910	/ 8		
calamari stir-fried, sriracha sauce, red	peppers, pean	uts, red onion,	thai basil /	calories 630 /	8
wontons chicken, scallion, cabbage ca	arrot, korean d	ipping sauce /	calories 20	0/ 7	
wings chicken wings, celery, sweet-spi	icy korean sau	ce / calories 86	i0 <mark>/ 8</mark>		

Additional nutritional information is available upon request; 2,000 calories a day is used for general nutrition advice, but calorie needs vary.

Treatment Menu: Entrees

Mains

salmon dashi-ginger broth, shiitakes, bok choy, fried rice cake, miso butter / calories 820 / 17 duck spring mix, farro, raisins, asparagus, pickled shallots, blood orange, sherry vinaigrette / calories 690 / 17 steak delmonico, chimichurri, fries, house salad / calories 1840 / - 18 **burger** custom-ground beef, bacon, LTO, dijon mayo, cheddar or whipped blue, fries or salad / calories 1270 / 13 **seafood** scallop, shrimp, andouille, zucchini, cherry tomatoes, gumbo veloute, polenta / calories 580 / 17 **spaghetti** garlic butter, cherry tomatoes, rapini, fennel, pinenuts, capers, parsley / calories 1020 / 12

Treatment Menu: Desserts

Desserts

bombolini cinnamon-sugar donuts, chocolate ganache / calories 660 / 6

mascarpone cheesecake graham cracker crust, macerated berries / calories 420 / 6

banana split brûléed banana,

trio of daily ice creams,

chocolate crumble / calories 780 / 6

napoleon phyllo, chocolate cream, crisped rice wafer, ganache,

caramel sauce / calories 1150 / 6

그는 소리는 이번 방법을 얻

Empirical Model

$$Y_i = \alpha + \beta T_i + \gamma X_i + \varepsilon_i$$

- Y_i : outcome of interest concerning patron *i*
 - Calories ordered (by course, total)
 - Whether ordered each course (appetizer, entrée, dessert) extensive margin
 - Calories ordered conditional on ordering the course intensive margin
 - Whether ordered a special (appetizer, entrée, dessert)
 - Nutrients ordered: fat, cholesterol, vitamin A, vitamin C, fiber, etc.
 - Calories ordered per dollar spent
 - Restaurant's outcomes: revenue, revenue minus food costs, labor time
 - Whether consumer reported seeing calorie info
 - Whether consumer supports menu labels

Empirical Model

$$Y_i = \alpha + \beta T_i + \gamma X_i + \varepsilon_i$$

- T_i : indicator for random assignment to Treatment group
- X_i : includes:
 - Individual characteristics: sex, age, race, education
 - Restaurant environment: indicator variables for day of week, table, seat, server
- ε_i : error term
- Estimated using OLS for continuous outcomes, LPM for binary outcomes
- Standard errors clustered at party level

Empirical Results

Unconditional Mean Calories by Course and Group (T vs C)



Total N=5,551. Control N=2,745 Treatment N=2,806 * p<0.10, ** p<0.05, *** p<0.01

Effect of Menu Labeling on Calories Ordered

	Estimated Effect
Appetizer Calories	-22.5*
Mean=376.6	(12.7)
	N=5551
Entree Calories	-26.6*
Mean=811.7	(13.8)
	N=5551
Dessert Calories	-6.4
Mean=164.6	(11.3)
	N=5551
Drink Calories	3.2
Mean=104.2	(5.2)
	N=5551
Total Calories	-44.9*
Mean=1474.4	(23.3)
	N=5551

* p<0.10, ** p<0.05, *** p<0.01

Standard errors in parentheses (se); clustered at the party level.

Effect on Probability of Ordering Each Course

	Estimated Effect
Appetizer	-0.006
Mean=0.735	(0.017)
	N=5551
Entree	-0.015*
Mean=0.926	(0.009)
	N=5551
Dessert	-0.007
Mean=0.329	(0.020)
	N=5551
Drink (Caloric Only)	0.035*
Mean=0.458	(0.018)
	N=5551

* p<0.10, ** p<0.05, *** p<0.01

Standard errors in parentheses (se); clustered at the party level.

Effect of Menu Labeling on Calories, Conditional on Ordering Course

	Estimated Effect
Appetizer Calories	-22.6
Mean=512.6	(14.7)
	N=4078
Entree Calories	-13.2
Mean=876.8	(12.1)
	N=5139
Dessert Calories	-33.6*
Mean=501.1	(19.7)
	N=1824
Drink Calories	-11.2
Mean=227.7	(8.3)
	N=2540

* p<0.10, ** p<0.05, *** p<0.01

Standard errors in parentheses (se); clustered at the party level.

Effect of Menu Labeling on Nutrition

	Estimated Effect
Fat Cal.	-21.29*
Mean=671.79	(12.80)
	N=5551
Total Fat (g)	-2.60*
Mean=75.72	(1.44)
	N=5551
Saturated Fat (g)	-0.81
Mean=26.51	(0.53)
	N=5551
Cholesterol (mg)	2.52
Mean=255.08	(6.60)
	N=5551
Sodium (mg)	-21.97
Mean=2817.32	(66.01)
	N=5551

* p<0.10, ** p<0.05, *** p<0.01

Standard errors in parentheses (se); clustered at the party level.

Effect of Menu Labeling on Nutrition (cont)

	Estimated Effect
Total Carbs (g)	-5.01**
Mean=113.44	(2.25)
	N=5551
Dietary Fiber (g)	-0.31
Mean=10.29	(0.19)
	N=5551
Sugar (g)	-1.28
Mean=28.13	(1.09)
	N=5551
Protein (g)	-0.84
Mean=60.11	(1.08)
	N=5551
Vitamin A (%)	-0.96
Mean=141.24	(6.14)
	N=5551

* p<0.10, ** p<0.05, *** p<0.01

Standard errors in parentheses (se); clustered at the party level.

Effect of Menu Labeling on Nutrition (cont)

	Estimated Effect
Vitamin C (%)	-4.12
Mean=127.07	(4.65)
	N=5551
Calcium (%)	0.23
Mean=49.41	(1.69)
	N=5551
Iron (%)	1.04
Mean=52.36	(2.00)
	N=5551
Ethanol (g)	0.50
Mean=8.22	(0.45)
	N=5551

* p<0.10, ** p<0.05, *** p<0.01

Standard errors in parentheses (se); clustered at the party level.
Do People Choose "Value"?

- Some previous studies have found unanticipated responses to provision of information (Dranove, 2003; Dupas, 2011)
- Might consumers respond to calorie information by buying the "value" items that offer the biggest bang (# calories) for the buck?
- No evidence of this...

	Estimated Effect
Calories Per Dollar	-0.90
Mean=51.20	(0.64)
	N=5551

* p<0.10, ** p<0.05, *** p<0.01

Standard errors in parentheses (se); clustered at the party level.

Covariates: treated, day of week FE, month-by-year FE, table FE, seat FE, server FE, party size, gender, age, Hispanic, race, and education.

Effect of Menu Labeling on Restaurant Business

	Estimated Effect
Revenue	-0.05
Mean=34.32	(0.63)
	N=5551
Profit	-0.06
Mean=25.37	(0.46)
	N=5551
Labor Time (min)	-0.17
Mean=14.19	(0.21)
	N=5551

* p<0.10, ** p<0.05, *** p<0.01

Standard errors in parentheses (se); clustered at the party level.

Covariates: treated, day of week FE, month-by-year FE, table FE, seat FE, server FE, party size, gender, age, Hispanic, race, and education.

How Calorie Labels Change Error in Estimated # Calories Ordered

	Full Sample	Control	Treated
Ordered Calories	1274.5	1303.7	1247.5
Estimated Calories	1098.1	1093.1	1102.6
Difference	176.4	210.6	144.9
P-value	< 0.001	< 0.001	< 0.001

Cawley, Susskind, Willage (2018) N=1,651. From Restaurant A. In graphs, error over 300% not shown



100

Absolute Value of % Error

Control

200

Treated

300

2

0

Effect on Probability of Seeing Calorie Info, Supporting Labels

	Estimated Effect
See Calorie Info	0.682***
Mean=0.467	(0.016)
	N=3864
In Favor of Calorie Info	0.073***
Mean=0.764	(0.017)
	N=3569

* p<0.10, ** p<0.05, *** p<0.01

Standard errors in parentheses (se); clustered at the party level.

Covariates: treated, day of week FE, month-by-year FE, table FE, seat FE, server FE, party size, gender, age, Hispanic, race, and education.

Summary of Results

- Menu labels:
 - Reduce calories ordered
 - Total calories decrease by 44.9 (3.0%)
 - Calories from entrée fall by 26.6 (3.2%),
 - Calories from appetizers fall by 22.5 (6.0%)
 - Reduce probability of ordering:
 - Entrée by 1.5 ppts (1.6%)
 - Conditional on ordering a dessert, order one that has 33.6
 (6.7%) fewer cal
 - Limited effects on nutrition; reduces fat (by 3.4%) and carbs (by 4.4%)
 - No impact on fiber, saturated fat, cholesterol, sodium, sugar, or vitamins

Policy Implications

- New national menu label law may reduce # calories ordered, have small impact on body weight
 - No evidence people use the information to increase bang (# cal) for the buck
- No evidence of harm to restaurants
 - No significant change in labor time, revenue or (revenue food costs)
- Exposure to labels increases support for having calorie information on restaurant menus by 9.6%
 - Vast majority of both groups support, which doesn't support theory of strategic self-ignorance (Thunstrom et al., 2016)

Other Possible Benefits

- Other possible benefits of menu labels, not measured in our experiment:
 - Better matching of items to patron that doesn't affect # calories ordered
 - Suggestive evidence of reformulation of recipes after labeling (Bleich et al., 2015; Bruemmer et al., 2012; Vesper et al., 2012)

Limitations and Future Research

- Limitations:
 - Experiment in two restaurants, on university campus, patrons 38% college students
 - Measuring immediate effect; effect may increase or decrease with exposure or time
 - Data on orders, not consumption
 - Can't observe offsetting behavior (e.g. eating less) later
 - Despite limitations, contributes to the literature as a wellpowered field RCT
- Future research: would be useful to test ways to make the calorie info more visible (prominence, context) and salient/useful



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Thank you!

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Cornell University



Economic Inpuiry FEDERAL TRADE COMMISSION XXXXXXXXXXX **Consumer Protection Economics Symposium** December 7, 2018 | Washington, DC

Panel: Analysis of Consumer Welfare & Consumer Protection Policy

Break 2:30-2:50pm Please be reminded that no food or drinks are allowed in the Auditorium.



Economic Inpuiry FEDERAL TRADE COMMISSION **Consumer Protection Economics Symposium** December 7, 2018 | Washington, DC

Keynote Address Daniel Hamermesh, Barnard College & Institute of the Study of Labor (IZA)



Economic Inpuiry FEDERAL TRADE COMMISSION **Consumer Protection Economics Symposium** December 7, 2018 | Washington, DC

Time Use, Time Loss: Can the Consumer Be Injured?

Daniel S. Hamermesh*

Barnard College, IZA, Univ. of Texas, Royal Holloway Univ. of London and NBER





The Most Valuable Resource

DANIEL S. HAMERMESH

Questions and Introduction

- "Time is money" But how much? How much for whom? How does it affect behavior?
- My background—history on studying time:

1. Book—Spending Time: The Most Valuable Resource

a compendium of previous and new stuff.

2. 30 years of academic papers.

3. Case involvement: <u>FTC v. Amazon. com, Inc., 71</u> <u>F. Supp. 3d 1158 - 2014</u> - Dist. Court, WD "Refunds Now Available from Amazon for Unauthorized In-App Purchases"

1. Do We Have More Money or More Time than our Grandparents?



Time is Money

- Our income grows with time and typically as we age, since real earnings rise with age. Time doesn't.
- How does this play out in our behavior? Central point—outside of work, even the wealthiest can't cut back on time: Sleep; sex, leisure of nearly all kinds.



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"My husband and I make love 6 times a week. We outsourced our sex life to a young couple overseas." • How Value of Time Affects What We Do

1. Use time-diary data—for U.S., France, Germany. The American Time Use Survey (ATUS), done by BLS, 2003-current:

a. One person/household, 1 day only.

b. Diary filled out next morning, 2-5 months after final CPS interview. Thus have all CPS variables. Day runs 4:00AM-3:59AM.

c. No specified time intervals. >400 coded categories (coding by BLS based on verbal responses in diary).

d. 1800/month in 2003, about 1000/month since.



2. Look first at non-workers—people without earnings who say they don't work.

3. Examine things that take lots of time, few \$ or €. Sleep, TV-watching are the best examples—and they account for over 10 hours of the average adult's day (more in the US than in F or D, bec we watch more TV) Table 2



	Home Production	Sleep	Other Personal	TV- watching	Other Leisure
ATUS:**					
All Nonworkers					
(N = 51,997)	2.19	-2.05	1.10	-2.95	1.71
	(0.18)	(0.14)	(0.10)	(0.20)	(0.22)
Adj. R ²	0.260	0.078	0.035	0.121	0.065
Not working on holidays					
(N = 2,050)	1.96	-2.07	1.00	-2.05	1.16
	(0.83)	(0.62)	(0.45)	(0.92)	(1.06)
Adj. R ²	0.260	0.079	0.031	0.104	0.087
Enquête:***					
(N = 5,439)	-0.63	-3.00	3.19	-7.07	7.52
	(1.74)	(1.22)	(1.53)	(1.49)	(2.03)
Adj. R ²	0.324	0.122	0.068	0.101	0.208
Zeitverwendung	serhebung: ^{****}				
(N = 1,993)	0.82	-3.35	-4.10	-5.68	12.31
	(2.18)	(1.49)	(1.19)	(1.81)	(2.70)
Adj. R ²	0.221	0.068	0.053	0.080	0.102

Table 2. Income Effects on Time Use (Minutes/Day in Response to +10,000 (\$ or €) Annual Income): Non-workers U.S., 2003-15; France, 2009-10; Germany, 2012-13*

*Standard errors in parentheses below the parameter estimates. Those in the French and German equations are clustered on the individuals.

**The equations also include a quadratic in age; indicators and numbers of children in several age groups; gender, marital status and their interaction; a vector of indicators of educational attainment; and vectors of indicators of state of residence, metropolitan status, year, month and diary day.

***The equations also include a quadratic in age; a vector of indicators of educational attainment; indicators and numbers of children in several age groups; gender, coupled status and their interaction; and vectors of indicators of the month, diary day and region.

****The equations also include a quadratic in age; indicators of number of children under age 10; gender, marital status and their interaction; and, vectors of indicators of quarter, diary day, educational attainment and East Germany.

3. Look at workers—people who usually work, and worked on the diary day. Changing incentives can affect whether they change work time too.

a. Same outcomes—sleep and TV. Table 3

b. Wage effects same as income for non-workers.
4. Conclusion: Even within non-work time, change in wage alters time use. Does so more on things that, given time-intensity, allow more easy substitution—TV vs. sleep.



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Table 3. Parameter Estimates, Sleep and TV-watching (Minutes/Day in Response to +\$10 Hourly Earnings, +\$10,000 Other Annual Income): Married Workers, ATUS 2003-15*

	SI	eep	TV-	TV-watching		
	Male	Female	Male	Female		
Ind. Var.:						
Annual Other	0.061	-0.205	-0.229	-1.008		
Income	(0.220)	(0.162)	(0.263)	(0.177)		
Hourly Earnings	-1.153	-0.711	-2.212	-2.305		
	(0.558)	(0.651)	(0.668)	(0.687)		
Adj. R ²	0.122	0.117	0.113	0.073		
Ind. Var.:						
Annual Other	-0.238	-0.567	-0.507	-1.008		
Income	(0.202)	(0.162)	(0.250)	(0.177)		
Hourly Earnings	-1.064	0.207	-2.130	-2.633		
	(0.512)	(0.608)	(0.635)	(0.666)		
Work Time	-0.186	-0.170	-0.173	-0.124		
	(0.003)	(0.003)	(0.004)	(0.003)		
Adj. R ²	0.260	0.232	0.198	0.131		
N =	18,122	19,526	18,122	19,526		

*All equations also include a quadratic in age; indicators and numbers of children in several age groups; a vector of indicators of educational attainment; and vectors of indicators of state of residence, metropolitan status, year, month and diary day.

5. It's not just these time-intensive activities—
people will switch toward things that take lots of \$\$ (€€)
a. Look at restaurant eating, sports events/museum-

going.

b. Results—Table 5.



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Table 5. Income Effects on Time Use (Minutes/Day in Response to +10,000 (\$ or €) Other Annual Income): Non-workers U.S., 2003-15; France, 2009-10*

		U.S	5.**		Fran	ice***
	Ea	ting Out	Sports	/Arts	Eati	ng Out
Determinants of:	Prob.	Cond. Mean	Prob.	Cond. Mean	Prob.	Cond. Mean
	0.028 (0.002)	0.462 (0.091)	0.028 (0.002)	-0.556 (0.423)	0.058 (0.017)	-16.71 (18.78)
Pseudo-R ² or Adj. R ²	0.037	0.026	0.071	0.026	0.094	0.168
N =	51,997	8,834	51,997	2,408	5,407	1,154

*Standard errors in parentheses below the parameter estimates. Those in the French equations are clustered on the individuals.

**The equations also include a quadratic in age; indicators and numbers of children in several age groups; gender, marital status and their interaction; a vector of indicators of educational attainment; and vectors of indicators of state of residence, metropolitan status, year, month and diary day.

***The equations also include a quadratic in age; a vector of indicators of educational attainment; indicators and numbers of children in several age groups; gender, coupled status and their interaction; and vectors of indicators of the month, diary day and region.

"Feelings, nothing more than feelings"

- Do people care—do these incentives affect how people feel about things? Are they bothered?
- I don't like "feelings"—should leave to sociologists. But economic choices do affect feelings.
- Theory—should feel stressed where relative scarcity is greater.
- So expect to see high-income, high-wage people more time stressed.



What is stressful?



In F, UK and D paid work is the most time-stressing. Housework is next most stressful. TV-watching, sleep the least. Who is stressed for time—high- or low-earners? Examine data for 3 countries, early 2000s



True even for non-workers: The higher one's partner's income, the more time-stressed one is. And if one works, partner's extra earnings cause extra time stress.

Conclusion: It's only feelings, but it is a loss.



Measuring the Losses

- Examples of lost time—personal:
- Trip to lunch when the other guy didn't show--\$2.75 subway fare + 1 hour of my time.
- Having to detour on sidewalk bec. of a private construction project. Just 1 minute for me, but lots of people over 2 years. A large total public loss of time, for a private gain (the builder's).
- Listening to dreadful music for 15 minutes on hold while adjudicating credit-card charges.



- How measure value of this time—since we know it has value, and the time loss forces people into activities other than those they prefer?
- Huge literature on this—I found 96 studies, 64 in a 2007 meta-analysis. Lots of work, bec. used in valuing public investment projects. Some are subjective, others behavioral responses to changing transportation opportunities.
- What does it show?



Let $VOT = xw^*$,

VOT = value of the time spent on activity,

 $w^* =$ hourly wage,

x = how a person values time spent outside the market, probably $0 \le x \le 1$.





Figure 1. Distribution of Estimates of *x* from 96 Studies





Figure 2. Distribution of Estimates of *x* from 28 U.S. Studies



All Studies:	0.48	U.S. Studies:	0.64
	0.65		0.74
	[0.56, 0.74]		[0.54, 0.95]
	96		28
Recent Studies		Recent U.S.	
Recent Studies (2004+):	0.62	Recent U.S. Studies (2004+):	0.82
	0.62 0.74		0.82 0.85

Table 1. Estimates of the Value of Time as Fraction of AverageHourly Earnings (VOT/AHE) (Median, Mean, 95-PercentConfidence Interval, Number of Studies)
Summarizing VOT studies

- Estimate regression of *VOT* against *US*=1, year published:
- VOTPCT= 0.62 + 0.007(Year-1959) 0.08US(0.15) (0.004) (0.14)
- Conclude that *VOTPCT* may be ↑ over time . And remember, w* surely ↑.
- But what about non-workers: For them w^r≥ w*--so just calculate what w* is for observationally identical people who are earners.



Conclusions

- Time really is money. People respond to its value—and we can predict how different people will behave.
- We can value time—it's less than the wage, but probably around half of wage, or wage one could earn.
- Picky-picky: Of course, non-market time varies for the same person:
- 1. By activity engaged in.
- 2. By time of day.
- 3. By whom with.
- Thus all the calculations are averages for person with particular characteristics at average time of day and average activity.
- Should be used in wide variety of areas to value consumer losses.

Keynote Address Daniel Hamermesh, Barnard College & Institute of the Study of Labor (IZA)



Economic Inpuiry FEDERAL TRADE COMMISSION **Consumer Protection Economics Symposium** December 7, 2018 | Washington, DC



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Paper Session 2

Conclusion

Free Product Trials

Dmitry Lubensky¹ Eric Schmidbauer²

¹Amazon Inc

²University of Central Florida

Consumer Protection Economics Symposium, Federal Trade Commission, Dec 2018

The views presented here are of the authors alone and do not necessarily reflect those of Amazon Inc.

Free product trials

- · Many sellers explicitly offer free trials of new products
 - · Video and music streaming
 - Gym membership
 - Test drive a new car
 - · Samples at the grocery store
- · Many other products implicitly offer free product trials through returns
- · Why do sellers do this?
- · What is the effect of this practice on consumers? On welfare?

Introducti	

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What product trials do

- A product's value depends on its quality (common value) and how well the product fits a consumer's particular tastes (match value)
- A free trial reveals quality, which may be unknown by consumers but known by the seller
- A free trial *also* reveals match value, which becomes known by consumers but not by the seller
- · Seller's tradeoff from product trial
 - · Benefit: reveal a higher quality than the average product without a trial
 - · Cost: cede an information rent to consumers regarding match

Introduction	



1. Firm is privately informed of quality

2. Firm is uninformed of quality



Int				

Mode

Equilibrium

Conclusion



- 1. Firm is privately informed of quality
 - Unraveling argument \Rightarrow full disclosure (Grossman and Hart, 1980; Grossman, 1981; Milgrom, 1981)

2. Firm is uninformed of quality



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- 2. Firm is uninformed of quality
 - Promote consumer learning to improve match (Lewis and Sappington, 1994)
 - Demand rotations (Johnson and Myatt, 2006)
 - · Bayesian persuasion (Kamenica and Gentzkow, 2011)

Equilibrium

Conclusion

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Model

- Single seller with constant marginal cost $c \ge 0$
- Single consumer with unit demand

$$\mathbf{v} = \theta + \alpha \varepsilon$$

- Quality $\theta \sim F$ on $[\underline{\theta}, \overline{\theta}]$
- Match value $\varepsilon \sim G$ on $[\underline{\varepsilon}, \overline{\varepsilon}]$, density $g, E[\varepsilon] = \eta$
- Seller observes θ but not $\varepsilon,$ decides whether to offer product trial, then chooses price p
- With product trial, consumer observes v and p and decides whether to purchase (utility v - p) or not (utility 0)
- Without product trial, consumer observes p only, forms posterior μ about quality and decides whether to purchase

Introduction

Mode

Equilibrium

Conclusion

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Equilibrium

- · Let μ be the average quality of sellers that don't offer trial
- Let $\pi(\theta)$ be the maximized profit of type θ when offering trial, i.e.

$$\pi(\theta) \equiv \max_{p} (p-c)(1-G(\frac{1}{\alpha}(p-\theta)))$$

Net benefit of allowing product trial

$$\Delta(\theta, \mu) = \pi(\theta) - (\mu + \alpha \eta - c)$$

- If $\alpha = 0$ then $\Delta(\theta, \mu) = \theta \mu \Rightarrow$ all types offer trial (Milgrom, 1981)
- Lemma 1 In any equilibrium sellers follow a threshold policy t and allow trial if and only if $\theta \ge t$.

Disclosure benefit and learning cost

Equilibrium threshold *t* given by:

$$\Delta(t,\mu(t)) = 0 = \pi(t) - (\mu(t) + \alpha\eta - c)$$

= $\underbrace{(t-\mu(t))}_{B(t)} - \underbrace{(t+\alpha\eta - c - \pi(t))}_{C(t)}$.



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Disclosure benefit and learning cost

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Introduction

Mode

Equilibrium

Conclusion

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Equilibrium & Comparative statics

Proposition 1 All types offer free trials only if $C(\underline{\theta}) \leq 0$ and α is sufficiently small. Otherwise, there exists a $t \in (\underline{\theta}, \overline{\theta}]$ so that the seller offers a trial if and only if $\theta \geq t$. Furthermore, if $\mu''(t) < 0$ then the equilibrium is unique.

Introduction

Mode

Equilibrium

Conclusion

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Equilibrium & Comparative statics

Proposition 1 All types offer free trials only if $C(\underline{\theta}) \leq 0$ and α is sufficiently small. Otherwise, there exists a $t \in (\underline{\theta}, \overline{\theta}]$ so that the seller offers a trial if and only if $\theta \geq t$. Furthermore, if $\mu''(t) < 0$ then the equilibrium is unique.

Proposition 2 When the threshold is unique, the proportion of types offering free trials increases in the marginal production cost and decreases in the relative importance of match α .

Model

Equilibrium

Conclusion

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Commitment power

Proposition 3 A firm with commitment power

- uses a threshold policy, and
- offers product trial only when it is <u>below</u> the threshold value.

Discussion

- Because consumers are Bayes rational, for every free trial policy the expected posterior is the prior (i.e. $E[\mu] = \eta$). Thus no ex-ante demand shift benefit from offering the trial.
- Threshold determined solely by the cost of demand rotation, which increases monotonically in θ . Therefore, offer a trial only *below* a threshold.

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Policy implications: "Cooling-Off" Rules

- The FTC's Cooling-Off Rule gives consumers a 3-day right to cancel a sale under certain circumstances.
- Effectively mandatory product trial

Remark 1 Consumer surplus rises with a mandatory product trial policy.

Discussion

- All types above t would have disclosed without policy, therefore effect only for $\theta < t$
- Without policy, consumers receive zero surplus
- With policy, consumers receive positive surplus

Welfare Effects of a "Cooling-Off" Rule

Let ε^{*}(θ) be the threshold match value that purchases at the seller's profit-maximizing price.

$$\Delta W(\theta) \equiv \int_{\varepsilon^*(\theta)}^{\overline{\varepsilon}} (\theta + \alpha \varepsilon - c) f(\varepsilon) d\varepsilon - \int_{\underline{\varepsilon}}^{\overline{\varepsilon}} (\theta + \alpha \varepsilon - c) f(\varepsilon) d\varepsilon$$
$$= \underbrace{\int_{\underline{\varepsilon}}^{\underline{\varepsilon^*}(\theta)} (c - (\theta + \alpha \varepsilon)) f(\varepsilon) d\varepsilon}_{\text{Welfare benefit of mandatory trial}} - \underbrace{\int_{\underline{\varepsilon}}^{\varepsilon^*(\theta)} (\theta + \alpha \varepsilon - c) f(\varepsilon) d\varepsilon}_{\text{Welfare cost of mandatory trial}}$$

Remark 2 A policy of mandatory product trial reduces the total quantity traded, both from consumers with willingness to pay above and below the production cost. Therefore the welfare effect of the policy is ambiguous.

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Conclusion

- 1. A product trial discloses the seller's private information about quality but also endows the buyer with private information about match
- 2. This results in a tradeoff
 - · upward demand shift by separating from non-disclosing lower types
 - · demand rotation and ensuing loss of information rents
- 3. In equilibrium trial is offered by the seller if the quality exceed a threshold value.
- 4. Consumers always benefit from mandated free trials (i.e. "cooling off period" laws) while the welfare effects are ambiguous.

Comments on Lubensky & Schmidbauer: "Free Product Trials"

Lawrence J. White Stern School of Business New York University Lwhite@stern.nyu.edu

Presentation at the FTC Symposium on Consumer Protection Economics, Washington DC, December 7, 2018

Overview

- The issue
- What L&S do
- What they find
- Some comments/suggestions
- Conclusion

The issue

- Why don't asymmetric information situations "unravel" upward? Why don't higher-quality firms offer credible information? (Why don't buyers insist on such information?)
 - Any firm with above-average quality should want to demonstrate its quality and thereby escape the undifferentiated pool
- Is it only the costs of providing the information including the costs of credibility – that impede this unraveling?

What L&S do

• Build a model of x2 asymmetric information

- Vertical quality
- Horizontal ("matching") information
- Information revelation yields 2 kinds of info
 - Vertical quality
 - Horizontal location (e.g., location on the Hotelling line)
- Characterize equilibrium
- Explore what happens when the firm has commitment capabilities
- Explore policy: mandatory disclosure

What L&S find

- Disclosure of vertical quality has the usual outcome
 - Tendency toward upward unraveling; improves welfare
- Disclosure of horizontal position acts like a cost of disclosure
 - May impede disclosure
- Firms may or may not want to commit to disclosure
- Mandatory disclosure has ambiguous welfare result

Comments/suggestions

- Describe the horizontal revelation as something akin to revealing location on the Hotelling line
 - Instead of consumers' "learning their own tastes"
- Be clearer as to what the firm is committing to
- Consider other potential policies
 - Mandatory cooling-off period? Mandatory warranty? Minimum quality standards?
- What about the credibility of the information?
- Could information disclosure be continuous rather than all-or-nothing?

Conclusion

- Why don't asymmetric information situations unravel upward?
- The implicit cost of revealing horizontal information may be part of the story
- There are interesting possibilities that can be pursued further
- More research!



Economic Inpuiry FEDERAL TRADE COMMISSION **Consumer Protection Economics Symposium** December 7, 2018 | Washington, DC

Paper Session 2

Search Costs, Hassle Costs, and Drip Pricing: Equilibria with Rational Consumers and Firms

Michael R. Baye, Indiana University

John Morgan, University of California, Berkeley

Presentation for the Federal Trade Commission's Consumer Protection Economics Symposium

December 7, 2018

A Hypothetical Journey to Help the Commission Protect Consumers



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Google Search

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Landing Page After Clicking "Feeling Lucky"

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Questions

- If consumers are rational, can firms benefit from such strategies?
- Do such strategies harm consumers?

Focus on a Particular Flavor of "Drip Pricing"

- Obfuscation of compulsory charges to buy a specific product
 - Firm fails to disclose "hidden charges" until checkout; costly for a consumer to discover a firm's price, which might be "dripped" to consumer during the purchase process
 - Polar case: Consumer learns nothing about price until after incurring "hassle costs" of navigating to the "checkout page"
 - Non-Directed Search
- Flavors not considered
 - Upselling/optional add-on charges (e.g., baggage fees, etc.)
 - Directed search

Key Elements of Drip Pricing

- Total price revealed over time and/or after considerable "hassle"
- Total price disaggregated into buckets

Conventional Wisdom

- Drip pricing seeks to exploit behavioral biases of consumers
- Won't work with fully rational consumers

Sullivan (FTC Working Paper, 2017)

"To summarize, the theoretical models in the economics literature find that rational expectations would prevent consumers from being harmed by drip pricing and related practices. Consumers with rational expectations would recognize when firms are likely to charge undisclosed additional fees, and would refuse to purchase the product unless the firms offered sufficiently large discounts to the advertised component of the price. However, several theories identify departures from rational expectations that could cause consumers to be harmed by drip pricing."

Brown, Hossain and Morgan (QJE, 2010)

"Theoretical predictions on the profitability of shrouded pricing frequently depend on the rationality level of consumers. The literature makes a distinction between shrouded charges that are unavoidable (surcharges) and avoidable (add-ons). *Shrouding a surcharge is not optimal when all consumers are fully rational and disclosure is costless (Milgrom 1981; Jovanovic 1982).* However, shrouding may be optimal with boundedly rational consumers."

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Hold your Horses!



Our Paper

- Drip pricing can be profitable with fully rational consumers
- Endogenize firms' abilities to impose informational frictions
- Identify a continuum of drip pricing equilibria
 - Ordered by consumer harm
 - Don't arise unilaterally; require coordination
 - Are fragile

Our Approach: Extend Search Models to Allow for Endogenous Hassle Costs

- Classical search models: Costs c > 0 for a consumer to visit a retailer to obtain a price quote
 - Exogenous cost (phone call, shoe-leather cost, etc.) of visiting a retailer
 - Non-directed search
- We add an *endogenous* hassle cost: After incurring c > 0, it costs $\kappa_i \ge 0$ for a consumer to discover retailer *i*'s price
 - Each firm *i* unilaterally chooses κ_i
 - No drip pricing: $\kappa_i = 0$
 - Drip Pricing: $\kappa_i > 0$
- Setting $\kappa_i > 0$ is different than a simple comparative static on c
- Do this using Reinganum's seminal model of equilibrium search

Why the Reinganum (1979) Model?

- Simplest model sufficient to support a non-degenerate distribution of product prices in equilibrium
 - Price dispersion stems entirely from costly information (search frictions)
- Similar vintage to Milgrom (1981) and Jovanovic (1982)
- Allows us to focus on how drip pricing/obfuscation affects markets purely through its impact on the cost of obtaining price information
 - Abstracts from reputation, uncertain product quality, etc.
- Allows us to demonstrate simply that there is no need to throw rationality under the bus to gain insights about how drip pricing/obfuscation might impact welfare

Key Elements of Classical Reinganum Model

- Many firms, identical products
- Heterogeneous marginal costs: G(m) on $[\underline{m}, \overline{m}]$
- Monopoly price of firm with marginal cost $m: \rho_m = \frac{\varepsilon}{1+\varepsilon}m$
- Identical consumers (isoelastic demand) sample firms at random with recall
 - Non-directed search
 - Number of consumers visiting each firm is independent of firm's identity or reputation, normalized to unity
- Exogenous search cost *c* > 0 per firm visited
- Optimal sequential search, stationary reservation price, r_c

Timing and Equilibrium

- Timing
 - Firms set prices, then consumers search and make purchase decisions
- Equilibrium
 - Each firm's price is optimal, given the reservation price of consumers
 - Firms with lowest costs (monopoly prices below r_c) charge their monopoly prices
 - Firms with highest costs (monopoly prices above r_c) charge the reservation price
 - Reservation price is optimal, given the distribution of firm prices

Extend Reinganum to Allow for Drip Pricing

- Prior to search, firms set prices and a hassle cost $\kappa_i \in [0, \bar{\kappa}]$
 - $\bar{\kappa}$: Hassle cost at which a consumer paying *c* to visit the firm with the highest monopoly price would earn exactly zero consumer surplus at that price
 - $\kappa_i = 0$: All-in price disclosed on landing page
 - κ_i > 0: Blank (uninformative) landing page; must navigate more pages to find total price
- Consumers have rational beliefs about hassle costs

Landing Page With Drip Pricing: Must Expend $\kappa_i > 0$ to Find Firm *i*'s Total Price

The Economics of E-Commerce

The International Library of Critical Writings in Economics series

Edited by Michael R. Baye, Bert Elwert Professor of Business Economics and Public Policy, Indiana University, Bloomington and John Morgan, Oliver E. and Dolores W. Williamson Chair of the Economics of Organizations, University of California, Berkeley, US

This comprehensive collection, edited by two pioneers of e-commerce, presents thirty of the most important papers written in the fields of economics, marketing and strategy. Topics covered include evaluation of the benefit to consumers of competition and product variety online, examination of auctions and reputational feedback mechanisms designed to mitigate informational asymmetries in online markets, and the debate on digital property rights including privacy, piracy and the open source movement. Together with an original introduction by the editors, this title provides a readily accessible wealth of material on the subject of e-commerce, invaluable to scholars and practitioners alike. ISBN: 978 1 78536 140 1 Availability: In Stock



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The Economics of E-Commerce

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 Merchandise:
 \$19.95

 Service Charge:
 \$78.99

 Total Before Tax:
 \$98.94

 Estimated Tax:
 \$7.02

 Order Total:
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Three Scenarios

- Exogenous, common hassle costs
- Endogenous hassle costs, but costless for a firm to impose
- Endogenous hassle costs, but costly for a firm to impose

Proposition 1: Common, Exogenous Hassle Costs

- When hassle costs $\kappa \in (0, \overline{\kappa}]$ are exogenous, they raise industry profits and reduce consumer welfare.
- Intuition:
 - Prospective cost of sampling another firm is $c + \kappa$
 - Results in a Reinganum-type equilibrium with search costs of $c + \kappa$
 - Raises the reservation price from r_c to $r_{c+\kappa}$

Proposition 2: Endogenous Hassle Costs, Costless for a Firm to Impose

- When it is costless for firms to impose hassle costs, a continuum of equilibria arise in which firms endogenously impose identical hassle costs $\kappa \in [0, \overline{\kappa}]$.
- Consumer welfare is ordered by κ; it is maximized when hassle costs are zero and declines as the common level of hassle costs increases. Industry profits ordered in reverse.
- Intuition:
 - Prospective cost of sampling another firm is $c + \kappa$, so results in a Reinganum-type equilibrium with search costs of $c + \kappa$
 - Each firm sets $\kappa_i = \kappa$
 - Unilaterally reducing hassle costs attracts no additional consumers (non-directed search)
 - Unilaterally raising hassle costs does impact reservation price or improve profits

A Closer Look at the Intuition

- Upon visiting a firm, a consumer's reservation price depends on the exogenous search cost, *c*, and the pricing/hassle cost decisions of *other* firms.
- The hassle cost imposed by an individual firm doesn't impact the prospective cost of sampling another firm (i.e., the exogenous search cost and the expected hassle cost at the next firm visited)
- But imposing needless frictions may increase the firm's costs
 - Costs of designing additional (and unnecessary) web pages and links
 - Costs from frustrated consumers abandoning their shopping carts

Proposition 3: Endogenous Hassle Costs, Costly for a Firm to Impose

- When hassle costs are endogenous and it is costly for firms to unilaterally raise them above some status quo, \hat{k} , then in equilibrium firms will not unilaterally impose hassle costs above the status quo.
 - Example: If the status quo entails no drip pricing, each firm has a strict unilateral incentive to *not* engage in drip pricing
- Potential Lock-in: Proposition 3 also works in reverse
 - When an industry is "locked in" to an equilibrium with hassle frictions, a firm will not unilaterally decrease hassle costs if doing so is costly.
 - Especially true of low-cost firms in our model, who gain nothing from industry-wide hassle costs

Concluding Remarks

• Coordinated vs. unilateral incentives

- Section 5 of FTC Act or Section 1 of Sherman Act?
- In the model, low-cost firms do not benefit from coordination
- Caveats:

Common industry practices regarding disclosure may arise for benign or efficiency reasons

Full transparency unlikely feasible or efficient

- Industry lock-in
 - Theoretically possible that industry gets locked-in to a "bad" drip pricing equilibrium
 - Regulatory responses may be reasonable (e.g., DOT's baggage fee disclosure policy)
- Incentives to induce directed search may mitigate these problems
 - Southwest's "Transfarency" ad campaign
- Competition through retailer reputation may mitigate drip pricing problems
 - Reputation likely impacts who is visited first (directed search)
 - Also likely disciplines firm behavior when consumers have behavioral biases

Directed Search: Targeting Based on a Retailer's Reputation



Discussion of Baye and Morgan

Joseph Farrell UC Berkeley FTC conference Dec 2018

Full information at purchase

 B&M assume purchase decision is after (hassle of) learning full price

Full information at purchase

- B&M assume purchase decision is after (hassle of) learning full price
- Contrast much discussion of drip pricing
Full information at purchase

- B&M assume purchase decision is after (hassle of) learning full price
- Contrast much discussion of drip pricing
- Both cases can arise
 - S&H, resort fees, aftermarkets, negative options
 - Psychological (semi-)commitment during hassle
 - Increasing marginal costs of exploration
 - Am I irrational to get "fed up with searching"?

Goal of fully rational model

- I agree this is a worthwhile research target
- But I'm not entirely sure why

B&M result on unilateral incentive

- In B&M it doesn't pay to increase hassle costs of customer learning your price
 - nobody will buy from you without doing so—see assumption above

B&M result on unilateral incentive

- In B&M it doesn't pay to increase hassle costs of customer learning your price
- Hence discussion of industrywide coordination
- Is this what we see?



Economic Inpuiry FEDERAL TRADE COMMISSION **Consumer Protection Economics Symposium** December 7, 2018 | Washington, DC

Paper Session 2

A Review of Current Studies and Some Remaining Research Questions in Four Small-Dollar Credit Markets

J. Brandon Bolen, Mississippi College Gregory Elliehausen, Board of Governors, FRB Tom Miller, Jr., Mississippi State University TMiller@business.msstate.edu

Consumer Protection Economics Symposium Washington, DC December 7, 2018





Consumer Credit in the U.S. has History

- "It is generally recognized that 19th century producers...floated on a vast sea of credit...but 19th century consumers depended on credit, too."
- "In the Victorian era saving, frugality, and self-denial were ideals practiced by SOME, popular with MANY, but only in retrospect credited to ALL."
- "If the test of a subject's historical importance is the amount of controversy it generated, then consumer credit is one of the most significant subjects in the history of the American twentieth century."

Financing the American Dream: A Cultural History of Consumer Credit, Dr. Lendol Calder, 1999



Utopia in Credit Markets

- Where Utopia exists:
 - Everyone would have plenty of money almost all the time.
 - When someone needed to borrow:
 - They would be treated "fairly" by all lenders.
 - Their loans have "reasonable" terms.
 - They would always pay back their loan on a "timely" basis.
- Eventually, however, we will arrive somewhere less than in Utopia.
 - I.E., Where we are **mostly** satisfied.
 - Personal Example: Buying a house
- Along the way, let's support researchers in building a mosaic of empirical results in credit markets on which to build sound policy.
 - Academics and agency research staffs can provide labor.
 - How can government agencies and industry best provide data?



Our Overarching Goal

- Provide a "launching pad" to stimulate additional dispassionate, rigorous, and replicable research on important questions about these markets.
- In our paper, we strive to highlight current questions and debate concerning these markets.
- We do not aim to measure, or test, the effectiveness of specific regulations in these markets.



Historical Motivation

- The Consumer Credit Protection Act of 1968, Pub. Law 90-321 (22pp.)
 - Title I: Truth in Lending Act
 - Title IV: National Commission on Consumer Finance
 - Presidential bi-partisan commission
 - Studied primarily the small-dollar installment loan markets



- The small-dollar loan landscape has mushroomed since the 1990s.
 - Pre 1990's: Finance company installment loans and pawn transactions
- Has data-driven research kept pace with the regulatory growth?



Has Data-Driven Research Kept Pace with the Regulatory Growth?

Restriction Growth Rates, from RegData©

NAICS_code:		522291	522298	522390	
all the second second	All	Installment			S&P 500
	Regulations	and Title	Pawn	Payday	finance.yahoo.com
Average Annual Rate					
1970-2017	2.1%	3.7%	5.5%	5.2%	8.7%
Since 2010	<mark>1.2%</mark>	8.8%	16.1%	<mark>21.9%</mark>	14.4%
Continuously Compounded A	nnual Rate				
1970-2017	2.1%	2.4%	4.8%	4.4%	7.5%
Since 2010	1.2%	8.0%	16.1%	21.8%	14.0%



Part of the Small Dollar Loan Landscape

(Some products in the non-prime financial ecosystem, 2018)

Established Products

- Pawnbroker Transactions
- Vehicle Title Pawn
- Payday Loans (Storefront and Online)
- Finance Company Personal Cash Installment Loans

Other Products

- Refund Anticipation Loans
- Rent to Own
- Buy Here Pay Here
- Advance Deposit Loans
- **P2P**
- Emerging Products
 - Payday Installment Loans (Bricks and Mortar and Online)
 - Vehicle Title Installment Loans (Bricks and Mortar and Online)

Illegal Lenders...



The Four Small-Dollar Credit Products (Similarities and Differences)

Non-Bank Supplied Product	Structure	Recourse?	Designed Term	
Established:			A AL	
Pawnbroker Transactions	Lump Sum	No	Month	
Vehicle Title Pawn	Lump Sum	No	Month	
Payday Loans (Storefront and Online):	Lump Sum	Yes*	"Two Weeks"	
Finance Company Personal Installment Loans	Amortizing	Yes	6-24 months	
Emerging:				
Payday Installment Loans	Amortizing	Yes?	4-6 months?	
(Bricks and Mortar and Online)				
Vehicle Title Installment Loans	Amortizing	Yes?	4-6 months?	
(Bricks and Mortar and Online)				



The Four Small-Dollar Credit Products (Access to Products: Regulation Methods)

Non-Bank Supplied Product	Do Some States Ban?	Priced Via State Regulated	Other State Regulations	The "Payday" Rule
Established:				
Pawnbroker Transactions	No*	Rate per month	Resale	Not Covered
Vehicle Title Pawn	Yes, 30	Rate per month	Resale	Covered
Payday Loans (Storefront and Online):	Yes, 12	Fee per \$100	Amount Cap or Percent of Income	Covered
Finance Company Personal Installment Loans	No*	APR Cap	Application Fee Ancillary Products	Somewhat Covered
Emerging:				
Payday Installment Loans (Bricks and Mortar and Online) Vehicle Title Installment Loans	Yes	Annualized Rate from Fee?	?	?
(Bricks and Mortar and Online)	Yes	Annualized Rate from Fee?	?	?



U.S. Regulatory History of Small Dollar Products

State Regulation of Non-Bank Supplied Small Dollar Loan Products:

		F	Pawn Loans		
			Traditional Insta	llment Loans	
alt the				Loans	
				Auto 1	itle Loans
Ea	doral Pogul	ation of Non Ba	nk Supplied Small	Dollar Loan Broducto	
Fe	ederal Regul	ation of Non-Ba		Dollar Loan Products:	<mark>Bureau</mark>



Central Questions Surrounding All Small Dollar Loans, I

- Does access to small dollar credit help or harm consumers, overall?
- Are consumers irrational and uninformed about using these credit products?
 - For what types of consumers is high-rate credit likely to be rational?
 - Are decisions deliberative and purposeful?
- How helpful is disclosing loan terms to consumers?
 - Do consumers recall the terms of the loan?
 - Does disclosure dissuade consumers from using these loans?



Central Questions Surrounding All Small Dollar Loans, II

- What is the frequency of usage and purpose?
 - Who uses these products?
 - When do they use them? How?
- Does financial education matter to consumers?
- What are the effects of interest rate caps?
- Are "credit deserts" desirable or undesirable outcomes?



Questions Specific to Products, I

• Pawn

- Who uses pawn brokers?
- How often do people use them?
- How do they use them?
- What is the effect of the Military Lending Act?

• Title

- Who uses title loans?
- What is the repossession rate?
- Do repossessions harm consumers?



Questions Specific to Products, II

Payday

- Why did payday loans reappear in the 1990's?
- What percentage of borrowers get "trapped"?
- Why don't more people default on payday loans?

Installment, Traditional Lenders

- How does the cost of producing these loans affect the breakeven APR by loan size?
- How do state rate caps limit and shape the supply of these loans, by loan size?
- Installment, Emerging



Summary

- We believe a need exists today for high quality, rigorous, and copious amounts of empirical research on consumer credit topics.
- We believe in constructing a mosaic of publicly available results generated by the scientific method.
- Access to high quality data is a fundamental requirement.



Thank You

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Consumer Protection Economics Symposium Washington, DC December 7, 2018



MISSISSIPPI STATE UNIVERSITY DEPARTMENT OF FINANCE AND ECONOMICS

CONSUMER CREDIT AND THE AMERICAN

Consumer Protection Economics Symposium

Discussion of:

A Review of Current Studies and Some Remaining Research Questions in Four Small-Dollar Credit Markets

Brian Rowe Federal Trade Commission



Source: Author Calculations using RegData©

Pawn	Percent of Customers
Easier and faster to qualify at pawn shop than bank	41.5%
Banks do not make small dollar loans	17.5%
Do not qualify for a bank loan	17.3%
Pawn shop has more convenient hours or location	10.5%
Pawn shop feels more comfortable than a bank	2.2%
Do not trust banks	1.1%
Other	9.0%
Payday	
Easier and faster to qualify at pawn shop than bank	40.6%
Banks do not make small dollar loans	20.0%
Do not qualify for a bank loan	14.9%
Pawn shop has more convenient hours or location	12.0%
Pawn shop feels more comfortable than a bank	1.3%
Do not trust banks	0.7%
Other	8.3%

Table 2: Reasons for Use Rather Than Bank

Source: 2015 and 2013 FDIC Unbanked/Underbanked CPS Supplements



Source: 2011 FDIC National Survey of Unbanked and Underbanked Households

EXHIBIT 4: MOST BORROWERS USE PAYDAY LOANS FOR RECURRING EXPENSES

REASON FOR FIRST LOAN



NOTES: Data represent percentage of borrowers who reported the reason for using their first payday loan based on 451 interviews. December 2011 - March 2012. Sampling error for the full-length survey of storefront payday loan borrowers is +/- 4.6 percentage points.

Survey participants were asked: Thinking back now to (that FIRST/the) time you took out a (online payday loan/payday loan/auto title loan), which of the following best describes what specifically you needed the money for?

- 1 To pay rent or a mortgage
- 2 To pay for food and groceries
- 3 To pay a regular expense, such as utilities, car payment, credit card bill, or prescription drugs
- 4 To pay an unexpected expense, such as a car repair or emergency medical expense
- 5 To pay for something special, such as a vacation,

entertainment, or gifts

6 (Do not read) Other (specify)

The combined results for "Recurring Expenses" include Regular Expense (53 percent), Rent or Mortgage (10 percent), and Food (5 percent) and add to 69 rather than the expected 68 because of rounding decimals. The response options were randomized in this and other survey questions, so the order in which the respondent heard them varied to eliminate order bias.

SOURCE: Pew Safe Small-Dollar Loans Research Project, 2012.

Source: Pew Charitable Trusts, Payday Lending in America, July 2012



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Closing Remarks Wesley Wilson, University of Oregon & Editor - Economic Inquiry