

CONFERENCE COMPENDIUM

Reforming America's Food Retail Markets

Sponsored by:

Thurman Arnold Project at the Yale School of Management

Information Society Project at Yale Law School

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Introduction

On July 9, 2021, President Joseph R. Biden issued an executive order on “Promoting Competition in the American Economy.”¹ Acknowledging that “a fair, open, and competitive marketplace has long been a cornerstone of the American economy,” President Biden admitted that the American economy has strayed far from this cornerstone. “Over the last several decades, as industries have consolidated, competition has weakened in too many markets, denying Americans the benefits of an open economy and widening racial, income, and wealth inequality,” read the executive order. In so many areas of American life, workers, consumers, farmers, and small businesses have suffered the consequences.

In perhaps no area of the American economy has this been truer than the food system, where corporate consolidation and various anticompetitive practices have reshaped practically every aspect of the way that Americans grow, process, market, sell, and consume our food. This compendium focuses on how corporate concentration has affected one specific sector of America’s food system: retail markets.

Since the mid-20th century, a handful of corporations have grown to dominate America’s food retail markets. A recent report found that over 60 percent of grocery categories are dominated by tight oligopolies or monopolies, while only 15 percent could be considered highly competitive.² Over the past several decades, the number of grocery stores nationwide has sharply declined, while the market share of the four largest retailers has substantially increased.³ Walmart alone accounts for \$1 out of every \$3 spent at grocery retailers — no other corporation has ever amassed this much control over the food system.⁴ Like many other industries, the grocery industry has experienced a wave of vertical and horizontal mergers, with over 300 in 2019.⁵ These transformations have had profound effects on many areas of American life.

The Covid-19 pandemic exacerbated many of these problems. Early on, supply chain issues plagued independent grocers, while large retailers used their buyer power to keep shelves stocked. Additionally, the pandemic-induced rise of online shopping drove massive increases in profits for dominant retailers.⁶ In the second quarter of 2020 alone, Walmart’s e-commerce business doubled in size.⁷ The pandemic also exposed the pervasiveness of chronic health issues

¹ Joseph R. Biden, “Executive Order on Promoting Competition in the American Economy,” July 09, 2021. <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/07/09/executive-order-on-promoting-competition-in-the-american-economy/>

² Food & Water Watch Issue Brief, “The Economic Cost of Food Monopolies: The Grocery Cartels,” November 2021, 5. https://www.foodandwaterwatch.org/wp-content/uploads/2021/11/IB_2111_FoodMonoSeries1-SUPERMARKETS.pdf

³ Ibid., 2.

⁴ Ibid., 2.

⁵ USDA Economic Research Service, Retail Trends in Retailing and Wholesaling.

<https://www.ers.usda.gov/topics/food-markets-prices/retailing-wholesaling/retail-trends/>

⁶ James Melton, “Online grocery sales more than double in 2020,” Digital Commerce 360, November 05, 2021. <https://www.digitalcommerce360.com/article/online-food-report/>

⁷ Sarah Perez, “Pandemic helped drive Walmart e-commerce sales up 97% in second quarter,” TechCrunch, August 18, 2020. <https://techcrunch.com/2020/08/18/pandemic-helped-drive-walmart-e-commerce-sales-up-97-in-second-quarter/>

caused by lack of access to healthy foods in local communities throughout the country, especially those with a disproportionate number of poor and minority residents.⁸

In recent years, a growing tide of scholars, lawmakers, and members of the public at large have looked at these issues and expressed increasing concern that food retail corporations have obtained too much market power. Foreshadowing President Biden's executive order, many critics have called for a revival of stricter antitrust enforcement, more assertive antitrust authorities, and a general rebalancing of economic power. The twenty papers that make up this compendium take up these calls and focus on solutions.

These papers were originally presented at "Reforming America's Food Retail Markets," a March 2022 conference held in New Haven, Connecticut. The conference, which drew over two hundred virtual and in-person attendees, was co-hosted by the Thurman Arnold Project at the Yale School of Management, the Information Society Project at Yale Law School, and the Yale Sustainable Food Program. The event served as a focal point for academics, enforcers, policymakers, practitioners, journalists, and beyond to convene and exchange ideas for how to jointly address the lack of competition in food retail markets. The papers contained in this compendium represent the outcome of this collaborative work.

The papers in this compendium address six broad themes. The first three papers focus on competition issues in meat and dairy markets. Peter Hardin and Zachary Shelley examine and propose solutions for the rapid consolidation of the milk industry in New England and other parts of the Northeast, focusing on the history and anticompetitive conduct of Dairy Farmers of America, a dairy farmers' cooperative. Francisco Garrido, Minji Kim, Nathan Miller, and Matthew Weinberg examine the role of alternative market arrangements (AMAs) on the anticompetitive pricing behavior of American beef packers. And Saachin Holdheim and Zaakir Tameez demonstrate how Agri Stats, a private reporting service for the meat processing industry, has helped facilitate cartel formation.

The next four papers examine competition issues in food retail markets more broadly. Richard Volpe, Xiaowei Cai, Benjamin Scharadin and Alexander Stevens examine the economic impacts of mergers and acquisitions (MA) in the food retail industry through a case study of one of the largest in the industry's recent history. Charlie Mitchell and Sophie D'Anieri show how slotting fees reproduce corporate control of the food system and propose alternate strategies for promoting small food producers. Riley Krotz and Gregory Gundlach demonstrate how the horizontal market power and vertical interfirm power conferred upon industry category captains can affect competition and harm consumers. And Claire Kelloway and Matthew Jinoos Buck assess the barriers posed by exclusionary payments to the growth of new, small, or community-based food businesses.

The next section addresses the legal rules that have entrenched corporate consolidation in food retail markets. Christopher Leslie examines the history, business logic, and illegality of anticompetitive covenants, which allow large supermarket chains to keep former sites of their stores from being used to sell food — a practice, he argues, that is partially responsible for the

⁸ Helena Bottemiller Evich, "Diet-related diseases pose a major risk for Covid-19. But the U.S. overlooks them," POLITICO, October 31, 2021. <https://www.politico.com/news/2021/10/31/covid-deaths-diet-diseases-nutrition-america-517076>

proliferation of food deserts throughout the United States. Tackling this issue at a more granular level, Karissa Kang examines Stop & Shop's use of restrictive covenants in Connecticut, and encourages local governments to pass ordinances banning or significantly restricting the use thereof. Matt Summers exposes the ineffectiveness of many FTC consent orders, and advocates creating a private right of action to enforce them. And Kate Conlow investigates the private funding of economic scholarship and argues for a variety of policies that would mandate conflict of interest disclosure for agricultural economists.

The fourth set of papers looks at how corporate concentration in food retail markets has affected low-income Americans, who have been disproportionately hurt by higher prices and exposure to food deserts. Isabelle Foster, Charlie Hoffs, Angelina Polselli, and Kyle Winterboer examine the competition, public health, and consumer privacy concerns raised by the Supplemental Nutrition Assistance Program Online Purchasing Pilot (SNAP OPP) program. Conor Nolan and Sandro Steinbach show how changes to antitrust enforcement agency policy and a revival of the Robinson-Patman Act can address the proliferation of dollar stores in low-income areas, which have negatively affected access to stable employment and healthy food in those areas. And Qianxia Jiang, Sandro Steinbach, and Kristen Cooksey Stowers illustrate the connections between increased concentration of food retail markets and increased exposure to food swamps, and find disparities in food swamp exposure by ethnicity and rural status.

The next set of papers examines online shopping, a segment of the food retail industry that has grown substantially in recent years. Using Amazon Go as a case study, Matene Alikhani and Bruno Renzetti examine the data protection and privacy risks of consumer surveillance in food retail markets, and propose legislative and enforcement changes, while Sean O'Brien conducts a privacy analysis of food retail smartphone apps and makes recommendations for increased transparency and user control of consumer data.

Finally, the last set of papers in this compendium look to the future and ask what kind of alternative food retail system we should aspire to build. JD Scholton and Ellen Walsh-Rosmann argue that investing in regional food hubs will help decentralize food systems, resolve supply chain issues, promote rural economic development, and combat climate change. Using two New York City markets as case studies and drawing on a long and rich history, Robert LaValva argues for treating public markets as a civic infrastructure that can help serve the goals of antitrust policy. Nathan Beacom and Benya Kraus explore how models of cooperative ownership offer alternatives to market concentration and corporate consolidation. And J. Noven looks at the history of grocery stores as civic forums and sites of "structure-based organizing," and argues that 21st-century social movements should experiment with new institutional forms and food retail market programs.

Considered together, the papers in this compendium offer a comprehensive view of the history and present of competition issues in food retail markets. Perhaps more importantly, they chart a path for how policymakers, antitrust enforcers, judges, lawyers, cooperative and small business owners, social movement organizers, concerned citizens, and others can work to build food retail markets that serve the interests of workers, consumers, farmers, and the communities they live in. The many changes proposed in these papers require action from the highest levels of American government — passing and reviving federal laws, strengthening the enforcement capacities of federal agencies — to the most local— passing city ordinances, investing in regional food infrastructures, and engaging in local organizing. Some can be put into place immediately, while others will take years of public investment and institution-building.

Many of these changes are long overdue. If, as President Biden argued in his July 2021 executive order, “the American promise of a broad and sustained prosperity depends on an open and competitive economy,” that promise will continue to go unkept without swift and aggressive action to restore competition in America’s food retail markets. The twenty papers assembled here offer a path forward to do just that.

The ideas and opinions expressed in this compendium are those of the authors and do not reflect the views of Yale Law School, Yale School of Management, Yale Sustainable Food Program, and the U.S. Department of Agriculture.

Conference Organizer

Austin Frerick

Conference Assistants

David Townley

Jack McCordick

Sponsoring Organizations

The [Information Society Project](#) (ISP) is an intellectual center at Yale Law School, founded in 1997 by [Professor Jack Balkin](#). Over the past 25 years, the ISP has grown from a handful of people gathering to discuss internet governance into an international community working to illuminate the complex relationships between law, technology, and society.

The [Thurman Arnold Project](#) (TAP) launched in fall 2019 in response to the growing interest in competition enforcement from scholars, students, and the general public. The project is named in honor of Thurman Arnold, Yale Law Professor and head of the Antitrust Division from 1938-43, to capture the intellectual and enforcement tradition he represented, as well as his zeal for achieving competitive markets for the people of the United States. The project was founded by Professor Fiona Scott Morton, an economist at the School of Management, and is designed to bring together Yale scholars and students who are interested in antitrust to engage with one another and create rigorous antitrust research and policy, disseminate it, and enable links to enforcement and regulatory policy.

The [Yale Sustainable Food Program](#) (YSFP) serves as a cross-disciplinary hub for research and teaching on food systems at Yale. YSFP staff and students operate the Yale Farm on the main campus, bringing field-based practical experience into courses on subjects ranging from anthropology to zoology. YSFP staff work to develop new instructional materials, courses, and practicum opportunities that engage Yale students with current concepts and controversies affecting food and agriculture today. The program offers a range of stipends and fellowships for domestic and international travel and study, and increasingly works as a collaborator in multi-institution research networks. In partnership with international collaborators, the YSFP is currently researching the varied social, economic, and political implications associated with the adoption of new information technologies into farming and agri-food supply chains.

Supporting Partners

The conference is supported, in part, by the U.S. Department of Agriculture's [Agricultural Marketing Service](#) (AMS) through a partnership between the AMS and TAP. The topics and views should not, however, be construed to represent any official USDA or U.S. Government determination or policy.

Conference Participants

Matene Alikhani, M.B.A. Candidate, Yale School of Management

Nathan Beacom, Director, Lyceum Movement

Matthew Jinoo Buck, J.D. Candidate, Yale Law School

Xiaowei Cai, Professor, California Polytechnic State University

Kate M. Conlow, J.D. Candidate, The University of Iowa College of Law

Kristen Cooksey Stowers, Assistant Professor in the Department of Allied Health Sciences, University of Connecticut

Sophie D'Anieri, Graduate Student Researcher, University of Chicago

Isabelle Foster, Co-Founder, unbox

Francisco Garrido, Assistant Professor of Economics, ITAM Business Administration

Alan Guebert, Syndicated Columnist and Author

Gregory Gundlach, Coggin Distinguished Professor of Marketing, University of North Florida

Peter L. Hardin, Founder, The Milkweed

Charlie Hoffs, Co-Founder, unBox

Sachin Holdheim, J.D. Candidate, Yale Law School

Qianxia Jiang, Ph.D. Candidate in the Department of Human Development and Family Sciences, University of Connecticut

Karissa Kang, J.D. Candidate, Yale Law School

Claire Kelloway, Program Manager for Food & Agriculture Systems, Open Markets Institute

Minji Kim, Ph.D. Candidate, Georgetown University

Benya Kraus, Executive Director, Lead for America

Riley T. Krotz, Assistant Professor of Marketing and AACSR Emerging Research Fellow, Texas Tech University

Robert LaValva, Placemaking Consultant and Creative Director

Nathan H. Miller, Saleh Romeih Associate Professor, Georgetown University McDonough School of Business

Charlie Mitchell, Journalist and Researcher

Connor Nolan, J.D. Candidate, University of Arizona James E. Rogers College of Law

J. Noven, Executive Director, The Berkeley Student Food Collective

Sean O'Brien, Lecturer in Cybersecurity & Visiting Fellow, Yale Law School & Information Society Project

Angelina Polselli, Policy Team Lead, unbox

Bruno Renzetti, LL.M. Candidate & Ph.D. Candidate, Yale Law School & University of São Paulo

Benjamin Scharadin, Visiting Assistant Professor, Colby College

J.D. Scholten, Senior Advisor, American Economics Liberties Project

Zachary R. Shelley, J.D. Candidate, Yale Law School

Sandro Steinbach, Assistant Professor in the Department of Agricultural and Resource Economics, University of Connecticut

Alexander Stevens, Research Agricultural Economist, USDA Economic Research Service

Matt Summers, Law Clerk for Judge Saris, U.S. District Court for the District of Massachusetts

Zaakir Tameez, J.D. Candidate, Yale Law School

Ricky Volpe, Associate Professor in Agribusiness, California Polytechnic State University

Ellen Walsh-Rosmann, Director of Wellness, Food Service and Nutrition, Harlan Community Schools

Matthew C. Weinberg, Associate Professor in Economics, The Ohio State University

Kyle Winterboer, M.P.P. Candidate, University of California Los Angeles



Panel 1: Meat & Dairy

Danger in the Safety Zone: Information Sharing in the Meat Processing Industry

Sachin Holdheim & Zaakir Tameez

The rising price of meat has become a kitchen table issue across America as high inflation plagues ordinary Americans. The inflation rate for the year ended in January 2022 is 7.5 percent, by far its highest level since the 1980s.⁹ A key component of this rise has been increases in the prices of meat, poultry, fish and eggs, which together outpaced headline inflation to grow by 12.2 percent over the same time period.¹⁰ The White House attributes some meat-related inflation to anticompetitive behavior in the meat processing industry.¹¹ Meat processing companies (MPCs) link producers, such as farms and ranches, to consumers. MPCs purchase meat from producers, and then process, package, and deliver meat to wholesalers or retailers at scale. MPCs constitute an extremely consolidated market and exert tremendous control over both ends of the supply chain. Since the start of the pandemic, MPC profits have gone through the roof as meat prices have skyrocketed even as input prices plummet.¹² The White House estimates that quarterly gross margins in the meat processing industry are up 50% and quarterly net margins are up 300% over pre-pandemic 2019 levels.¹³

Although the profit margin increases during the pandemic are striking, MPC profits have been rising quickly in the meat processing industry for years.¹⁴ Recent litigation directed at

⁹ U.S. Bureau of Labor Statistics, *Consumer Price Index for All Urban Consumers: All Items in U.S. City Average [CPIAUCSL]*, FRED, FED. RSRV. BANK OF ST. LOUIS, <https://fred.stlouisfed.org/series/CPIAUCSL> (last visited Feb. 26, 2022).

¹⁰ *Consumer Price Index*, U.S. BUREAU OF LAB. STAT., <https://www.bls.gov/cpi/> (last visited Feb. 26, 2022).

¹¹ Brian Deese, Sameera Fazili & Bharat Ramamurti, *Addressing Concentration in the Meat-Processing Industry to Lower Food Prices for American Families*, White House Briefing Room Blog (Sept. 8, 2021) (“While factors like increased consumer demand have played a role, the price increases are also driven by a lack of competition at a key bottleneck point in the meat supply chain: meat processing.”); Brian Deese, Sameera Fazili & Bharat Ramamurti, *Recent Data Show Dominant Meat Processing Companies Are Taking Advantage of Market Power to Raise Prices and Grow Profit Margins*, White House Briefing Room Blog (Dec. 10, 2021) (stating that inflation in meat prices is a “good example” of “dominant corporations in competitive markets taking advantage of their market power to raise prices while increasing their own profit margins”).

¹² David Frum, *Where’s the Cheap Beef?*, THE ATLANTIC (Sept. 24, 2021), <https://www.theatlantic.com/ideas/archive/2021/09/biden-beef-prices-plan/620187/> (describing retail beef prices increases even as ranchers are not receiving enough to break even); *Boxed Beef & Fed Cattle Price Spread Investigation Report*, U.S. DEP’T OF AGRIC., 1, 9 (July 22, 2020), <https://www.ams.usda.gov/sites/default/files/media/CattleandBeefPriceMarginReport.pdf> (reporting an eighteen percent decrease in cattle prices between April and May 2020); Julie Creswell, *Your Steak Is More Expensive, but Cattle Ranchers Are Missing Out*, N.Y. TIMES (June 23, 2021), <https://www.nytimes.com/2021/06/23/business/beef-prices.html> (finding that even as consumers experience higher prices, “ranchers say they are barely breaking even or, in some cases, losing money”).

¹³ Deese et. al., *Recent Data Show . . .*, *supra* note 4.

¹⁴ Christopher Leonard, *Is the Chicken Industry Rigged?*, Bloomberg Businessweek (Feb. 15, 2017), <https://www.bloomberg.com/news/features/2017-02-15/is-the-chicken-industry-rigged>.

pork,¹⁵ turkey,¹⁶ and chicken¹⁷ processing companies has exposed a number of potential anticompetitive explanations for these sustained price increases: namely, coordinated price increases made possible by the extreme consolidation of the meat processing industry, enforced by highly developed information sharing techniques that promote cartel behavior.¹⁸

These litigants do not claim that MPCs share data with one another directly, but rather employ the services of the private data service provider Agri Stats, Inc.¹⁹ By sharing highly detailed production data via Agri Stats benchmarking reports, MPCs are able to ensure that each participating company follows production decisions in lockstep.²⁰ This collusion is not just a Sherman Act problem, but also a policy problem.

In 2014, the Department of Justice and Federal Trade Commission (together, “the agencies”) issued information exchange “safety zone” guidelines that grant data service providers, like Agri Stats, an aura of legality.²¹ This paper finds that these guidelines were haphazardly formed in the first place and have been inappropriately stretched to cover industries and situations to which the guidelines are unsuited. We argue that the agencies should revisit and reform the safety zone guidelines in order to close the Agri Stats loophole, and suggest a new framework for broad application that should serve as a floor for future information exchange guidance. By renewing their focus on cartel facilitators, such as data service providers, the agencies can more effectively deter cartel formation, undermine cartel stability, and indirectly help end anticompetitive price increases.

This paper is organized as follows. Part 1 outlines a brief history of consolidation within the meat processing industry. Part 2 covers basic cartel theory, explaining how this consolidation could result in sustained increased prices at the expense of consumer welfare. Part 3 hones in on extreme information sharing as a cartel enforcement mechanism and focuses on Agri Stats, a private reporting service for the meat processing industry that is widely alleged to serve this function. Finally, Part 4 describes the history of the safety zone guidelines and Part 5 explains how to best reform them.

¹⁵ See, e.g., *In re Pork Antitrust Litig.*, 495 F. Supp. 3d 753 (D. Minn. 2020).

¹⁶ See, e.g., *Olean Wholesale Grocery Coop., Inc. v. Agri Stats, Inc.*, No. 19 C 8318, 2020 WL 6134982 (N.D. Ill. Oct. 19, 2020); *Sandee’s Catering v. Agri Stats, Inc.*, No. 20 C 2295, 2020 WL 6273477 (N.D. Ill. Oct. 26, 2020).

¹⁷ See, e.g., *In re Tyson Foods, Inc. Sec. Litig.*, 275 F. Supp. 3d 970 (W.D. Ark. 2017); *In re Broiler Chicken Antitrust Litig.*, 290 F. Supp. 3d 772 (N.D. Ill. 2017); *Hogan v. Pilgrim’s Pride Corp.*, No. 16-cv-02611, 2018 WL 1316979 (D. Colo. Mar. 14, 2018); *Jien v. Perdue Farms, Inc.*, No. 19-CV-2521, 2020 WL 5544183 (D. Md. Sept. 16, 2020).

¹⁸ See *infra* Part 2.

¹⁹ See, e.g., *In re Tyson Foods*, 275 F. Supp. 3d at 977 (“Crucial to the broiler chicken industry’s alleged antitrust conspiracy . . . [is] Agri Stats, Inc, a company that . . . provided just the tool to facilitate this monitoring.”).

²⁰ *Id.*

²¹ Michael Bloom, *Information Exchange: Be Reasonable*, FTC: COMPETITION MATTERS BLOG (Dec. 11, 2014) (outlining the FTC/DOJ safety zone).

History of Consolidation in the Meat Industry

Price fixing in the meat industry has a long history in the United States. In 1919, the Federal Trade Commission published a study that found that “actual control of the nation’s food supply in the hands of the five packers – or three of them – is entirely probable” due to the “huge surpluses” of the meat packers.²² Following this report, the government moved to break up the five largest meatpackers (the “Beef Trust” or the “Big Five”) under Section 4 of the Sherman Act, alleging a conspiracy to suppress competition in the purchase of livestock and the sale of meat.²³ Eventually, the Big Five and the Attorney General signed a consent decree designed to end the Big Five’s monopoly power and prohibit Beef Trust expansion into adjacent industries.²⁴ The following year, Congress passed the Packers and Stockyards Act, meant to remedy anticompetitive behavior in the meat packing industry. It is notable that at the time of this government intervention, the Big Five controlled just half of the national market for beef – a far cry from the more than eighty percent of the market controlled by just four beef MPCs today.²⁵

This united congressional, executive, and judicial focus on the meat packing industry was highly successful. Cattle slaughter four-firm concentration ratios, which measure the total market share of an industry’s largest four firms, plummeted from 43.1 in 1940 to 23.5 in 1960, and to 19.1 in 1975; similar downward trends existed in the hog and sheep markets over the same period.²⁶ Even as the market power of the largest MPCs declined, and despite repeated petitions by the Beef Trust firms to significantly modify or vacate the consent decree,²⁷ courts refused to vacate the consent decree until 1983.²⁸

The Reagan administration brought forth an era of widespread deregulation.²⁹ In the meat processing industry, this was most visible in the form of unchecked horizontal integration.³⁰ The

²² William B. Colver, *The Federal Trade Commission and the Meat-Packing Industry*, 82 THE ANNALS OF THE AM. ACAD. OF POL. & SOC. SCI. 170, 171 (1919).

²³ U.S. v. Swift & Co., 286 U.S. 106, 109-10 (1932).

²⁴ Robert M. Aduddell & Louis P. Cain, *The Consent Decree in the Meatpacking Industry, 1920-1956*, 55 THE BUS. HIST. REV., 359, 359-60 (1981).

²⁵ *Challenging Concentration of Control in the American Meat Industry*, 117 HARV. L. REV. 2643, 2657 (2004) (stating that the Beef Trust controlled “about half of the market”); Tom Polanssek, *Stung by Pandemic and JBS Cyberattack, U.S. Ranchers Build New Beef Plants*, REUTERS (June 17, 2021) <https://www.reuters.com/world/the-great-reboot/stung-by-pandemic-jbs-cyberattack-us-ranchers-build-new-beef-plants-2021-06-17/> (“Four industry behemoths . . . slaughter 85% of grain-fattened cattle . . .”); Emily Green, *Unpacking the Meat Industry*, FED. RSRV. BANK OF RICHMOND, ECON FOCUS MAG. 4, 6 (Q4 2020) https://www.richmondfed.org/-/media/RichmondFedOrg/publications/research/econ_focus/2020/q4/feature1.pdf (depicting four-firm concentration ratios in meatpacking and poultry processing).

²⁶ Robert M. Aduddell & Louis P. Cain, *A Strange Sense of Déjà Vu: The Packers and the Feds, 1915-82*, 11 BUS. & ECON. HIST., 49, 53 (1982).

²⁷ See, e.g., Swift & Co. v. U.S., 276 U.S. 311 (1928); U.S. v. Cal. Co-op. Canneries, 279 U.S. 553 (1929), U.S. v. Swift & Co., 286 U.S. 106 (1932); Aduddell & Cain, *The Consent Decree . . .*, *supra* note 17 at 369 (“When the Supreme Court [in 1956] refused to hear the packers’ appeal from the District Court ruling, the decree in its entirety was reaffirmed”).

²⁸ Aduddell & Cain, *A Strange Sense of Déjà Vu . . .*, *supra* note 19 at 49.

²⁹ See generally Martin Tolchin & Susan J. Tolchin, *The Rush to Deregulate*, N.Y. TIMES MAG. (Aug. 21, 1983), <https://www.nytimes.com/1983/08/21/magazine/the-rush-to-deregulate.html>.

³⁰ See *Challenging Concentration of Control . . .*, *supra* note 18 at 2645-46.

DOJ abandoned a strong approach to antitrust enforcement, favoring instead one rooted in “Chicago school” notions of valuable efficiencies and market self-correction;³¹ as a result, the agency approved most MPC acquisitions and joint ventures.³² This spate of MPC mergers was coupled with advancements in technology that yielded dramatic increases in economies of scale, leading to the widespread decimation of small-scale slaughterhouses and meat processing plants in favor of fewer and much larger processing plants.³³ Today, just over 100 cattle and 100 hog processing plants exist nationwide, down from 700 and 500 respectively in 1980.³⁴ This new industry reality promoted consolidation: four-firm concentration ratios nearly doubled in the meatpacking and poultry slaughter and processing industries between 1972 and 1992.³⁵

The consolidation of this era has persisted. In 2017, the four-firm concentration ratio increased to 67% for the entire meat and poultry processing industry, and, as stated above, was well over 80% in the beef processing industry.³⁶ The immense resource demands of modern meat processing mega-plants has also encouraged vertically integrated supply chains, dominated by strict ownership agreements (in the case of the poultry and hog industries) or price-obfuscating private deals with feedlot operators (in the case of the beef industry).³⁷ For example, nearly all “broiler” chickens, which constitute 98% of chicken meat sold in the U.S., move through supply chains strictly controlled or owned by MPCs: from laying eggs, to hatching chicks, to raising chicks, to slaughtering chickens, to processing and distributing the meat.³⁸

This extreme consolidation and reliance on a small number of mega-plants leaves the industry vulnerable. Small disruptions can have massive knock-on effects: in 2019, a fire shuttered a Tyson facility that handled roughly eight percent of the nation’s beef processing, leading to severe capacity constraints across the country.³⁹ The next year, several plants temporarily closed due to the spread of the coronavirus, causing the price of beef to skyrocket due to retail shortage as the prices of cattle tumbled due to lack of available production capacity.⁴⁰ Consolidation has also created a more pernicious vulnerability: cartel formation. In

³¹ See Jon Lauck, *Toward an Agrarian Antitrust: A New Direction for Agricultural Law*, 75 N.D. L. REV. 449, 460 (1999).

³² *Challenging Concentration of Control . . .*, *supra* note 18 at 2650. For example, Smithfield was permitted to acquire over forty firms between 1981 and 2006, going from on the verge of bankruptcy in the 1970s to becoming the largest pork processor in the world. See Green *supra* note 18 at 6.

³³ Green *supra* note 18 at 6 (“[M]eatpacking plant size doubled and output per meatpacking worker increased 45 percent from 1972-1992. ‘Both the introduction of scale economies from technology and the reduction in union wages among workers in large plants in the 1980s meant that larger plants now had a significant cost advantage over smaller plants.’” (quoting James MacDonald, formerly the acting chief of the Structure, Technology, and Productivity branch at the USDA’s Economic Research Service)).

³⁴ *Id.*

³⁵ *Id.*

³⁶ *Id.*

³⁷ See *Challenging Concentration of Control . . .*, *supra* note 18 at 2649 (describing ownership agreements in the poultry and hog industries); Creswell, *supra* note 5 (describing private deals in the beef industry).

³⁸ *In re Broiler Chicken Antitrust Litig.*, 290 F. Supp. 3d 772, 779-80 (N.D. Ill. 2017).

³⁹ Creswell, *supra* note 5 (stating that the Tyson factory slaughtered “more than 6,000 cattle per day” and that in late 2019 the nation was slaughtering “500,000 cattle per week”).

⁴⁰ *Id.*

the next Part, we discuss the theoretical underpinnings for why and how consolidation of this kind can result in sustained higher prices, at the expense of both consumer and total surplus.

The Modern Meat Processing Industry Is Well Suited to Cartel Formation

Firms are profit-seeking. This fundamental truth has led many firms in varied industries to attempt to trade competition for cooperation,⁴¹ despite the illegality of this behavior.⁴² Cooperating firms seek to reduce output and charge supra-competitive prices, leading to both a shift of surplus from consumer to cartel and a general loss of market efficiency.⁴³ Additionally, a successful cartel reaps long-run profits above its marginal cost and no longer needs to compete on quality of good sold, leading to a decrease in innovation in the market.⁴⁴

Although cartel behavior may be attractive to profit-maximizing firms, nascent cartels face significant challenges that tend to inhibit long-term collusion, making cartels “inherently unstable.”⁴⁵ Generally, the key challenges that cartels must overcome are initial coordination, the threat of new entrants, and subsequent monitoring to prevent cheating.⁴⁶ The modern meat processing industry is well-structured to minimize threats stemming from all three of these challenges.

First, the costs of initial coordination tend to decrease with market consolidation.⁴⁷ It is easier to reach an agreement when fewer parties need come to the table to coordinate behavior. Furthermore, when gains from collusion are split among fewer parties, per-conspirator profits are higher.⁴⁸ The consolidation of the meat market over the last hundred years has led to a dramatic reduction in the number of MPCs, with just four firms controlling the clear majority of the market across all meat and poultry subindustries.⁴⁹ This means that coordination costs are relatively low in the meat processing industry.

Second, an effective cartel must manage the threat of new entrants. Fierce competition from non-cartel firms may break the cartel hold over prices, resulting in price wars. Cartels are thus

⁴¹ See Margaret C. Levenstein & Valerie Y. Suslow, *What Determines Cartel Success?*, 44 J. OF ECON. LITERATURE 43, 43-44 (2006); Darren Filson, Edward Keen, Eric Fruits & Thomas Borchering, *Market Power and Cartel Formation: Theory and an Empirical Test*, 44 THE J. OF L. & ECON., 465, 466 (2001).

⁴² The Sherman Antitrust Act of 1890, 15 U.S.C. § 1.

⁴³ This typically is achieved through direct price-fixing, output restriction, market division, or bid-rigging. *Hard Core Cartels – Harm and Effective Sanctions*, OECD OBSERVER: POL’Y BRIEF, 1, 1 (2002); see also Christopher R. Leslie, *Trust, Distrust, and Antitrust*, 82 TEX. L. REV. 515, 517 (2004) (“Cartels cause allocative inefficiency by reducing production in order to raise market price.”).

⁴⁴ *Hard Core Cartels . . .*, *supra* note 36.

⁴⁵ See, e.g., J. D. Jaspers, *Managing Cartels: How Cartel Participants Create Stability in the Absence of Law*, 23 EUR. J. CRIM. POL’Y RSCH., 319, 320 (2017); Leslie *supra* note 35 at 518; Levenstein & Suslow, *supra* note 34 at 44.

⁴⁶ Levenstein & Suslow, *supra* note 34 at 44.

⁴⁷ *Id.*

⁴⁸ *Id.*

⁴⁹ See *supra* text accompanying note 29.

more stable in industries with high barriers to entry.⁵⁰ In the meat processing industry, the trend towards fewer, larger, highly specialized factories has effectively disallowed new entrants.⁵¹ In the broiler chicken industry, for example, “no company has created a new poultry company from scratch in decades,” as cost of entry is estimated at over \$100 million.⁵²

The third – and often most challenging – problem is monitoring. In a cartel, every firm has an incentive to cheat by slightly lowering prices to capture more profit.⁵³ A cartel can generally only sustain itself by monitoring each other’s compliance.⁵⁴ Recognizing this, the antitrust enforcement agencies have released guidelines that govern information exchange between rivals.⁵⁵ However, MPCs have exploited a loophole in these guidelines through their use of Agri Stats, Inc., a private reporting service in the meat processing industry that facilitates the exchange of thinly-veiled pricing and production data between MPC competitors.⁵⁶ The next Part describes in more detail how Agri Stats operates and what role it allegedly serves in cartel enforcement.

Agri Stats Exploits DOJ/FTC Information Exchange Loopholes

Agri Stats is a private information reporting service that serves the chicken, hog, turkey, and commercial egg industries.⁵⁷ The company compiles and distributes “benchmarking” reports spanning these sub-industries using a give-to-get model. Roughly 95% of all U.S. poultry producers and 80% of all turkey producers participate.⁵⁸ These benchmarking reports are highly detailed, non-public, and generally not of the kind freely shared between competitors. In the chicken market, for example, data exchanged included “where Broiler producers buy their breeder stock and feed, the size of production facilities[,] . . . production capacity, including numbers of eggs, the size of breeder flocks, and other inventory numbers, as well as financial information about each company.”⁵⁹ While data is provided at the individual plant level, Agri Stats claims the data is anonymized.⁶⁰ However, it is relatively easy for industry insiders to match production levels to specific plants or firms.⁶¹ Agri Stats’ method of “anonymization” is to

⁵⁰ Levenstein & Suslow, *supra* note 34 at 49.

⁵¹ See *supra* text accompanying notes 26-27.

⁵² *In re Broiler Chicken Antitrust Litig.*, 290 F. Supp. 3d 772, 780 (N.D. Ill. 2017).

⁵³ Filson et. al., *supra* note 34 at 466; Levenstein & Suslow, *supra* note 34 at 44.

⁵⁴ Filson et. al., *supra* note 34 at 466; Levenstein & Suslow, *supra* note 34 at 44.

⁵⁵ See FTC & U.S. DOJ, *Antitrust Guidelines for Collaborations Among Competitors*, FTC, 15-16 (Apr., 2000), https://www.ftc.gov/sites/default/files/documents/public_events/joint-venture-hearings-antitrust-guidelines-collaboration-among-competitors/ftcdojguidelines-2.pdf.

⁵⁶ Leonard, *supra* note 7.

⁵⁷ Agri Stats, Inc., *Partnership and Services*, <https://www.agristats.com/partnership> (last visited Feb. 27, 2022).

⁵⁸ *Jien v. Perdue Farms, Inc.*, No. 19-CV-2521, 2020 WL 5544183, at *2 (D. Md. Sept. 16, 2020) (describing the chicken industry); *Sandee’s Catering v. Agri Stats, Inc.*, No. 20 C 2295, 2020 WL 6273477, at *1 (N.D. Ill. Oct. 26, 2020) (describing the turkey industry).

⁵⁹ *In re Broiler Chicken Antitrust Litig.*, 290 F. Supp. 3d 772, 781 (N.D. Ill. 2017).

⁶⁰ See, e.g., *Jien*, 2020 WIL 5544183 at *2; *Sandee’s Catering*, 2020 WIL 6273477 at *2.

⁶¹ Eli Hoff, *‘Is This Legal?’: Why an Obscure Data Service has been Sued Nearly 100 Times for Facilitating Anti-Competitive Behavior*, INVESTIGATE MIDWEST: THE MIDWEST CENTER FOR INVESTIGATIVE REPORTING (July 29,

simply assign a single number to each participating plant; a plant's number *never* changes, ensuring that after a firm identifies an "anonymous" plant, the plant's identity is always known.⁶²

Agri Stats appears to serve as a hub for a hub-and-spoke conspiracy between MPCs. Traditionally, "such a conspiracy involves a hub, generally the dominant purchaser or supplier in the relevant market, and the spokes, made up of the distributors involved in the conspiracy."⁶³ The rim of the wheel, connecting the spokes, constitutes the series of anti-competitive agreements that the hub facilitates.⁶⁴ The only difference between a traditional hub-and-spoke conspiracy and the one described here is that the hub, Agri Stats, is a third party who does not directly participate in the price and output restrictions of the spokes, the MPCs. As the next part shows, however, the third-party distinction is one without an effective difference.

Agri Stats could thus serve as an effective tool for an MPC cartel to both coordinate and monitor rival firm behavior. The speech of some MPC executives seems to confirm the important role that Agri Stats plays in MPC production monitoring: in 2009, Sanderson Farms' CEO told analysts on a routine earning call that he "[saw] a lot of information from Agri Stats that tells me nobody's going to ramp up."⁶⁵ Additionally, in an investor presentation, a Tyson executive stated that "[i]t's very profitable right now. And we will not hit the top of the top We can tell that through Agri Stats."⁶⁶

Although the facilitated exchange of this non-public information by Agri Stats to MPCs enables allegedly anti-competitive behavior, the company operates within an established agency safety zone. The agencies expressly permit "reasonable" information exchanges, defined as those that are "not likely to harm competition."⁶⁷ To that end, the agencies defined a "safety zone" in a 2014 FTC blog post, which stated that "data exchanges are highly unlikely to raise substantial concerns," and it can be presumed that "[i]n general, the agencies will not challenge a data exchange" if:

1. the exchange is managed by a third-party, like a trade association;
2. the information provided by participants is more than three months old; *and*
3. at least five participants provide the data underlying each statistic shared, no single provider's data contributes more than 25% of the "weight" of any statistic shared, and the shared statistics are sufficiently aggregated that no participant can discern the data of any other participant.⁶⁸

2021), <https://investigatamidwest.org/2021/07/29/is-this-legal-why-an-obscure-data-service-has-been-sued-nearly-100-times-for-facilitating-anti-competitive-behavior/>.

⁶² *Id.*

⁶³ *Howard Hess Dental v. Dentsply Intern.*, 602 F.3d 237, 255 (3rd Cir. 2010).

⁶⁴ *Id.*

⁶⁵ Leonard, *supra* note 7.

⁶⁶ *In re Broiler Chicken Antitrust Litig.*, 290 F. Supp. 3d 772, 781 (N.D. Ill. 2017).

⁶⁷ Bloom, *supra* note 14.

⁶⁸ *Id.*

Agri Stats nominally fulfills all three categories of the safety zone criteria. First, it is a third-party entity. Second, although the precise information included in benchmarking reports is shrouded in secrecy, Agri Stats maintains that only historical data is distributed to firms.⁶⁹ Finally, it claims to anonymize data to effectively mask participant identity.⁷⁰ And yet, although Agri Stats may comply with the text of the safety zone guidance, it is still able to facilitate anticompetitive behavior. Even if all data provided is historical, Agri Stats has confirmed that it provides data intimately tied to *future production*: for example, Sanderson Farms CEO Joe Sanderson referred to learning the number of egg-laying hens in competitor firms from an Agri Stats report, a data point that is directly proportional to future Broiler chicken output.⁷¹ Furthermore, several courts have dismissed Agri Stats' anonymization practices as insufficient.⁷²

It is important to note that the three safety zone criteria work together conjunctively; a data service provider must meet all three conditions to qualify for a presumption of legality. But it is as if Agri Stats was tailor-made to fall within the guidelines. To close the safety zone loophole, it is imperative to update guidance to reflect modern business realities. Attorneys regularly refer to safety zone guidelines when advising private companies on how to shape their own industry information exchange practices. Indeed, Agri Stats CEO Jim Cox founded the company on an antitrust lawyer's advice that "[a]s long as you talk about history, you're OK."⁷³ Safety zone guidance should clearly signal both the methods of information exchange and the values underlying permitted exchange, in hopes of strengthening the agency's *ex post* enforcement abilities as well as shaping private behavior *ex ante*. The next Part outlines the history and development of the current safety zone guidance.

The Development of Safety Zone Guidance Was Haphazard

The Agri Stats information exchange regime would not have always been immunized by the enforcement agencies. Historically, the DOJ and FTC have pursued a number of high-profile cases against information-sharing cartels.⁷⁴ The agencies also frequently issued business review letters to firms seeking guidance on their information-exchange activities.⁷⁵ In 2000, the agencies issued "Guidance for Competitor Collaboration" that discouraged sharing information related to "price, output, costs, or strategic planning"; "current operating and future business plans"; and "individual company data."⁷⁶

⁶⁹ Leonard, *supra* note 7.

⁷⁰ *Id.*

⁷¹ *Id.*

⁷² See *supra* text accompanying notes 53-55.

⁷³ Leonard, *supra* note 7.

⁷⁴ See, e.g., *American Column & Lumber*, 257 U.S. 377 (1921); *U.S. v. American Linseed Oil Company*, 262 U.S. 371 (1923); *Maple Flooring Mfrs. Assn. v. U.S.*, 268 U.S. 563 (1925); *U.S. v. Container Corp. of America*, 393 U.S. 333 (1969).

⁷⁵ The Department of Justice issued 32 business review letters related to information exchange in the 1970s, 43 in the 1980s, 36 in the 1990s, and merely 8 in the 2000s. U.S. DOJ, *Digest of Business Reviews Topical Index 1968-2015*, U.S. DOJ, <https://www.justice.gov/atr/digest-business-reviews-topical-index-1968-2015> (last visited Feb. 26, 2022).

⁷⁶ FTC & U.S. DOJ, *Antitrust Guidelines for Collaborations . . .*, *supra* note 48.

Currently, the agencies take a comparatively lax stance towards information exchange with the advent of the safety zone criteria. This approach is misguided. The safety zone criteria were drafted with a narrow and particular focus to address a particular industry problem. In 1996, the agencies advised healthcare providers specifically about exchanging data on employee wages and consumer prices, carving out a safety zone within which behavior was presumed to be legal.⁷⁷ The agencies transposed the criteria word-for-word from this earlier statement into the general safety zone guidance in the FTC’s 2014 blog post.⁷⁸ But the conditions present in the healthcare industry – such as ongoing antitrust scrutiny⁷⁹ and limited little price transparency⁸⁰ – are not present in other industries.

It could be that the FTC’s blog post may not have been intended as a broad policy statement. It is not listed in the FTC or DOJ’s lengthy databases of guidance documents,⁸¹ nor is it a substantive agency rule that would have been subject to public notice and comment. Yet private firms—and the agencies themselves—now treat the 2014 post as a manifest statement of government policy. Attorneys regularly rely on the post when advising clients on how to avoid antitrust scrutiny when exchanging information with rivals.⁸² The DOJ followed the language of the blog post near verbatim when proposing a final judgment against a firm that allegedly participated in an illegal data exchange.⁸³ And at the start of the pandemic, the agencies released

⁷⁷ U.S. DOJ & FTC, *Statements of Antitrust Enforcement Policy in Health Care*, U.S. DOJ ANTITRUST DIV., 50 (Aug., 1996), <https://www.justice.gov/atr/page/file/1197731/download>.

⁷⁸ Bloom, *supra* note 14.

⁷⁹ The agencies regularly publish guidance documents related to healthcare, which signals to industry participants that they are being closely monitored by regulators. *See* FTC & U.S. DOJ, *supra* note 70.

⁸⁰ For a discussion on price obscurity in the healthcare market, *see* Garry Gabison & Zaakir Tameez, *Reverse Payment: A Comparative Study*, 19 IND. HEALTH L. REV. 21, 24-27 (2022).

⁸¹ FTC Guidance Documents, <https://www.ftc.gov/enforcement/guidance> (last visited Feb. 23, 2022); U.S. DOJ Antitrust Division Guidelines and Policy Statements, <https://www.justice.gov/atr/guidelines-and-policy-statements-0> (last visited Feb. 23, 2022).

⁸² *See, e.g.*, Christopher Wood, *Antitrust Compliance – Proceed Cautiously when Sharing Information*, LEWIS BRISBOIS (Jan. 3, 2019), <https://lewisbrisbois.com/newsroom/legal-alerts/antitrust-compliance-proceed-cautiously-when-sharing-information>; John Miles, *Collaboration and Information Sharing in the Coronavirus Era*, AM. COUNCIL ON EDUC. (May, 2020), <https://www.acenet.edu/Documents/Collaboration-and-Information-Sharing-in-the-Coronavirus-Era.pdf>; Hill Wellford, Darren Tucker & Evan Miller, *Antitrust Issues in Renewable Energy*, VINSON & ELKINS (June 22, 2020), <https://www.velaw.com/insights/antitrust-issues-in-renewable-energy/#Information>.

⁸³ The defendant in the case was not prohibited from exchanging “Competitively Sensitive Information for the purpose of aggregation if (a) Competitively Sensitive Information is sent to or received from, and the aggregation is managed by, a third party not owned or operated by any Station; (b) the information disseminated by the aggregator is limited to historical total broadcast television station revenue or other geographic or characteristic categorization (e.g., national, local, or political sales revenue); and (c) any information disseminated is sufficiently aggregated such that it would not allow a recipient to identify, deduce, or estimate the prices or pacing of any individual broadcast television station not owned or operated by that recipient.” Proposed Final Judgment at 8-9, *United States v. Sinclair Broadcast Group*, No. 1:18-cv-02609 (D.D.C. Nov. 13, 2018), ECF No. 25-2.

joint guidelines – citing the blog post – on how private companies can legally exchange information while collaborating in response to the public health emergency.⁸⁴

It is no wonder that the agencies' safety zone guidelines are outdated. They are based verbatim on industry-specific guidance that is more than 25 years old. They have never been subject to any kind of real scrutiny by either the agencies or in the academic literature.⁸⁵ And they have allowed cartel-enabling companies, such as Agri Stats, to facilitate widespread collusion under the radar. The next Part discusses possible reforms to each step of the safety zone.

Reforming the Safety Zone

The DOJ and FTC should reform safety zone guidelines to ensure that loopholing behavior, such as that of Agri Stats, is minimized. We propose three recommendations. First, the agencies should eliminate the third-party exception. Second, the agencies should constrain the historical data exception to data that is not competitively sensitive. Finally, the agencies should clarify the anonymization exception.

While any one of these proposals would help to narrow the Agri Stats loophole, we believe that each offers clear benefits designed to better shape public enforcement and private action. Additionally, we suggest generally that any industry-neutral generalized safety zone guidance should, as a best practice, be revisited at least once every five years to ensure continued relevance to given new business realities.

a. Abandon the Third-Party Exception

⁸⁴ **U.S. DOJ & FTC, *Joint Antitrust Statement Regarding Covid-19*, U.S. DOJ ANTITRUST DIV. (Mar., 2020), <https://www.justice.gov/atr/joint-antitrust-statement-regarding-covid-19>.**

⁸⁵ To the Authors' knowledge, there is no literature on the safety zones themselves. Moreover, the academic literature on American antitrust enforcement for information-sharing cartels in general is extremely limited. *But see* David J. Teece, *Information Sharing, Innovation, and Antitrust*, 62 ANTITRUST L.J. 465 (1994); Corby C. Anderson & Ted P. Peace, *The Antitrust Risks of Information Sharing*, 23 FRANCHISE L.J. 17 (2003); Spencer Weber Waller, *Trade Associations, Information Exchange, and Cartels*, 30 LOY. CONSUMER L. REV. 203 (2018); Mason Malone, Note, *Sharing Is Not Always Caring: Reevaluating the Insurance Industry's Antitrust Exemption and Information Sharing in the Machine-Learning Era*, 58 HOUS. L. REV. 987 (2021). The literature appears more robust in international law journals. *See, e.g.*, Peter Whelan, *Trading Negotiations between Retailers and Suppliers: A Fertile Ground for Anti-Competitive Horizontal Information Exchange*, 5 EUR. COMPETITION. J. 823 (2009); Thandi Lamprecht, *Bananas and Public Announcements: Defining the Boundaries of Anti-Competitive Information Exchanges*, 26 S. AFR. MERCANTILE L.J. 450 (2014); Sinsun (Sean) Yun et al., *Information Exchange as a Type of Agreement*, 15 J. KOREAN L. 33 (2015); Brian N. Hartnett & Will Sparks, *The Service Provider as Cartel Facilitator: Assessing 'Third Party' Liability Under Article 101 TFEU*, 1 COMPETITION L. & POL'Y DEBATE 54 (2015); Gonenc Gurkaynak et al., *Shady Contours of Cartel Liability of Service Providers*, 13 COMPETITION L. INT'L 79 (2017).

First, the antitrust agencies should remove the third-party caveat from the safety zone guidance. Third-parties, such as Agri Stats, often have a sufficient financial motive to facilitate collusion. Although Agri Stats does not directly participate in a meat processing industry cartel by actually dealing in meat, the company still has the incentive to distribute information that facilitates collusion through its role as a third-party administrator, or what some scholars refer to as a “cartel secretary.”⁸⁶

Unfortunately, the antitrust agencies have neglected the role that third-party information exchanges can play in facilitating collusion. Other competition authorities often prosecute third-parties. For example, the European Commission has brought several cartel cases against data service providers that facilitate collusion among industry participants.⁸⁷ Brazil’s competition authority has also brought several cases and issued numerous consent decrees against non-profit trade associations for exchanging competitively sensitive information.⁸⁸ Notably, some of these cases lacked any evidence that the associations explicitly helped coordinate or directly profited from the alleged price-fixing of the industry participants.⁸⁹

The lesson for the U.S. antitrust agencies is not that they should treat third-party information exchange in the same way as is done by agencies in Europe, Brazil, or any other jurisdiction. Instead, the key takeaway is that third-parties have been tried and convicted in other countries of facilitating collusion via information exchange. If it can happen there, it can happen here. Thus, the antitrust agency’s safety zone for third-parties who exchange information has little grounding in reality.

b. Constrain the Historical Data Exception to Data that is not Competitively Sensitive

Second, the agencies should remove the blanket exemption on historical data that is three months old. As is shown by Agri Stats’ provision of historical data that can accurately and precisely predict future output or prices, a three-month data block does not adequately address competitive concerns.⁹⁰

As data analytics becomes increasingly advanced, bad actors are well-equipped to share historical data that rivals can use to predict future prices. While big data and machine learning

⁸⁶ Jaspers, *supra* note 38.

⁸⁷ *See, e.g.*, Case T-99/04, AC-Treunhand v. Comm’n, ECLI:EU:T:2008:256 (July 8, 2008) (involving a consultant firm that facilitated a cartel between organic peroxide producers). For a good discussion on other European Union cases regarding third-party cartel facilitators, *see* Hartnett & Sparks, *supra* note 78.

⁸⁸ Ana Paula Martinez & Mariana Tavares de Araujo, *Information Exchange among Competitors: The Lay of the Land of Enforcement in Brazil*, COMPETITION POL’Y INT’L (Mar. 10, 2020), <https://www.competitionpolicyinternational.com/information-exchange-among-competitors-the-lay-of-the-land-of-enforcement-in-brazil/>.

⁸⁹ *Id.*

⁹⁰ *See supra* part 3.

make this easier,⁹¹ these practices are certainly not new. As early as 1921, the Supreme Court has noted that “genuine competitors do not make daily, weekly, and monthly reports of the minutest details of their business to their rivals.”⁹² This principle holds whether the data is three days old or three months old.

Instead of a total exemption on historical data, the agencies should eliminate safety zone protections for information that poses a risk to genuine competition. To do so, the agencies need only reaffirm the “competitively sensitive information” standard from the 2000 Competitor Collaboration Guidelines.⁹³ The agencies ought to make clear that data containing prices, input costs, output levels, product mixes, and information about future production or planning is highly suspect, even when historical. Expanding the scope of objectionable information exchange from nonhistorical data to any competitively sensitive information better addresses the underlying normative goal of the safety zone – to allow only procompetitive information exchanges – and expands the remit of public enforcement.

c. Clarify the Anonymization Exception

Finally, the agencies should amend the safety zone to clarify that rendering data unidentifiable requires more than merely aggregating or pseudonymizing it. Instead, firms seeking protection within the safety zone should be required to *anonymize* the data such that it cannot be reasonably re-identifiable.

Agri Stats pseudonymizes its data. Pseudonymization alters data so that it “can no longer be attributed to a specific data subject without the use of additional information.”⁹⁴ Rivals easily match the Agri Stats plant-level information with publicly available information, and then match non-public information to specific plants and MPCs.⁹⁵ A clear line must be drawn between this pseudonymization and true anonymization, where competitors would be *unable* to reasonably identify source firms.⁹⁶

Regulators in other jurisdictions, such as the European Union, have issued guidance to industries on how to properly anonymize data so that it cannot be reasonably re-identified.⁹⁷ These anonymization tools fundamentally change the data, by altering data in a consistent manner such that no data point is re-identifiable, while the underlying trends remain the same.

⁹¹ For an excellent review on the literature on pricing algorithms, see Zach Y. Brown & Alexander MacKay, *Competition in Pricing Algorithms*, NAT’L BUREAU OF ECON. RSCH., 1, 4-6 (2021).

⁹² *American Column & Lumber v. United States*, 257 U.S. 377, 410 (1921).

⁹³ FTC & U.S. DOJ, *Antitrust Guidelines for Collaborations* . . . , *supra* note 48.

⁹⁴ Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation), 2016 O.J. (L. 119) 1,88 art. 4(5).

⁹⁵ *Jien v. Perdue Farms, Inc.*, No. 19-CV-2521, 2020 WL 5544183, at *2 (D. Md. Sept. 16, 2020)

⁹⁶ Importantly, if information at this level of specificity cannot be sufficiently anonymized—even if the current aggregation requirement is met—then this information should not be permitted to be exchanged between rivals.

⁹⁷ Article 29 Data Protection Working Party, Opinion 05/2014 on Anonymisation Techniques, 0829/14/EN WP 216 (Apr. 10, 2014).

Anonymization may be achievable via classic techniques from computer science, such as noise addition (where data is randomly altered within a range, e.g., ± 10), or permutation (where certain attributes of data are randomly shuffled across data points).⁹⁸

Rather than relying on an ill-conceived data “aggregation” requirement, the agencies should specify that firms must take all steps to ensure data cannot be reasonably re-identifiable. The agencies should then consider issuing similar guidance as other jurisdictions on how to properly anonymize.

Conclusion

The modern meat processing industry is highly consolidated and prone to cartel formation. Agri Stats, a private company that facilitates information exchange between rival meat processing companies, helps to stabilize cartel arrangements by sharing rival data that companies interpret to monitor price and output decisions. Current DOJ and FTC guidelines on information exchange practically exempt Agri Stats from enforcement action and bestow its actions with an aura of legality.

The safety zone was developed in a haphazard fashion, and perhaps was not intended to have such a broad effect. Safety zone loopholes must be closed. We propose three simple, actionable steps that the antitrust agencies can take to address the issue: abandon the third-party exception, constrain the historical data exception, and clarify the anonymization exception.

Reforming the safety zone will have two effects. First, it would strengthen the government’s hand in enforcement proceedings against data service providers that facilitate collusion. Second, it may influence market behavior by altering the advice that antitrust counsels provide clients. Currently, attorneys regularly reassure clients not to worry about exchanging data that is historical, aggregated, and/or administered by third parties. The agencies should send a much stronger signal to industries that consider exchanging competitively sensitive information in this manner: don’t risk it for the brisket.

⁹⁸ *Id.* at 12-14.

Buyer Power in the Beef Packing Industry: An Update on Research in Progress

Francis Garrido, Minji Kim, Nathan H. Miller & Matthew C. Weinberg

Introduction

This paper summarizes the progress that has been achieved to date on a research project that explores the pricing behavior of beef packers in the United States. Of particular interest is the increase in the *packer spread*—the gap between the prices that packers pay to upstream feedlots and the prices that they receive from retailers—that occurred over 2015-2019. To our knowledge, there is no plausible cost-based explanation for the increase in the packer spread during that period. Thus, it is natural to explore the role of market power, and especially whether the beef packers may have been able to exercise buyer power in the market for fed cattle to a greater degree.

We focus on the alternative market arrangements (AMAs) that increasingly are used to facilitate transactions between feedlots and packer. Under an AMA, the feedlot agrees to sell its cattle to a packer at some future date, with the price being linked to the prices that are realized in the cash market near the delivery date of the cattle. That such arrangements distort the packers' bidding incentives in the cash market is well established in the economics literature (Mahenc and Salanie, 2004; Xia and Sexton, 2004). The reason is that more aggressive (higher) bids raise the price that packers must pay for cattle acquired with AMAs. Thus, economic theory suggests that cash market prices are likely to be lower, the greater the prevalence of AMAs. As the prices that feedlots obtain with AMAs are linked to realized prices on cash market, the presence of AMAs may broadly depress the price paid for cattle.

This research update proceeds with four main sections:

- Section 2 describes the institutional setting and the data that we use. We document that between 2005 and 2019, the proportion of cattle sold in the cash market fell from over 60% to just above 20%, reflecting the increase in AMA usage. We also document that the largest four packers account for 80% of industry capacity. This combination—a high reliance on AMAs and packers with an ability to move cash market prices—aligns with the conditions under which economic theory indicates the adverse effects of AMAs may be large.
- Section 3 shows pricing trends over 2005-2019 and analyzes the incentives created by AMAs in more detail. It also summarizes the results of an econometric analysis of weekly prices over 2005-2020. The results are consistent with the economic theory described above: a one percent increase the AMA share of transactions is associated with a five percent decrease in cash market prices.
- Section 4 presents an economic model that places the incentives introduced by AMAs into a framework that is amenable to empirical analysis. With some simplification, we show that the markdowns set by each packer scale with AMA usage. In particular, if the ratio of a packer's AMA cattle to the total size of the cash market is 80%, then the profit-maximizing markdown of the packer is 80% higher than it would be without any AMAs. A typical ratio for the largest four packers in 2019 appears to be about 100%. Thus, to an approximation, the model suggests

that AMAs roughly double packers' markdowns. We are working to calibrate the model to industry data and obtain additional results.

Our understanding is that the recent increase in the packer spread has attracted the attention of policy-makers. As a matter of economic theory, our research suggests that eliminating AMAs or increasing competition among packers—for example by barring multi-plant ownership—could better align the price of fed cattle with the economic value that is provided by feedlots and other upstream participants. In evaluating such possibilities, it is worth considering some purported benefits of AMAs: lower transaction costs, increased capacity utilization at feedlots and packing plants, and a greater incentive for feedlots to make relationship-specific investments in cattle quality. To the extent that one accepts these benefits are real and substantial, it is worth contemplating whether a regulatory solution is available that would preserve them, yet alleviate the downward pressure that AMAs put on cattle prices. Among the ideas that have been floated, and about which we are thinking, is that AMAs prices could be pegged to outcomes in the downstream boxed beef market.

The Market for Fed Cattle

Institutional Details

The supply chain for beef begins with ranchers, who breed cattle and raise calves for beef production.⁹⁹ Calves are weaned after six to nine months at a weight of 400-700 pounds. After spending some time on pasture, they are transferred to specialized stocker operations, where they add another 200-400 pounds over three to eight months. The stockers sort the animals into groups of consistent quality and sell them to feedlots, where they eat high energy grain feed over another four to eight months, Table 1: National Capacity-Based Market Shares and Herfindahl Index

Year	Tyson	Cargill	JBS	National	Swift	Smithfield	Total	HHI
2005	0.30	0.23	.	0.11	0.13	0.07	0.84	1,819
2007	0.29	0.25	0.13	0.11	.	0.07	0.85	1,842
2009	0.24	0.26	0.24	0.12	.	.	0.86	2,016
2011	0.24	0.26	0.24	0.12	.	.	0.86	2,003
2013	0.25	0.22	0.25	0.12	.	.	0.85	1,924
2015	0.25	0.22	0.27	0.11	.	.	0.84	1,934
2017	0.25	0.22	0.24	0.11	.	.	0.82	1,841
2019	0.25	0.21	0.24	0.10	.	.	0.80	1,777

Notes: The table summarizes the capacity-based market shares of the major packers over 2005-2019. JBS purchased Swift in 2006 and Smithfield in 2008. The HHI is based on the capacity shares of all packers. Based on data on large packing plants obtained from *Cattle Buyers Weekly*.

until they reach around 1250-1350 pounds. At this point, the animals are “fed cattle” and are sold by the feedlots to the packers.¹⁰⁰ The packers slaughter the animals, chill the carcasses, butcher them into various cuts of meat, and the vacuum seal the cuts to form boxed beef. The boxed beef then is sold to retailers and restaurants, both directly and through processors and distributors.

There are thousands of ranchers, stockers, and feedlots, but only a handful of packers. Thus, to study oligopsony power in the industry, we focus on the procurement of fed cattle by the packers. Table 1 provides capacity-based market shares over 2005-2019 for the major packers, along with the national Herfindahl-Hirschmann Index (HHI). The major packers account for 80% or more of industry capacity in each year.

⁹⁹ In this section, we draw on our conversations with industry experts as well as on the numerous descriptions of the industry (e.g., RTI International, 2007; MacDonald and McBride, 2009; USDA, 2014).

¹⁰⁰ Most calves are born between February and March. Thus, the variation that is observed in the durations that cattle spend with ranchers, stockers, and feedlots allows for a consistent supply of beef.

One of them—JBS—entered the market by acquiring two others: Swift (in 2007) and Smithfield (in 2008). JBS also proposed to acquire National Beef but was challenged successfully by the Department of Justice. The other acquisition that occurred during this period is that of Iowa Premium Beef, an operator of a small plant in Iowa, by National Beef; the acquisition closed in 2019. Using the thresholds of the Horizontal Merger Guidelines for the HHI, the market could be characterized as “moderately concentrated” at the national level, although this may not be reflective of the more local competition that exists for fed cattle procurement.

Table 2 provides the number of plants, average plant capacity, and total capacity (summing across plants) for each of the major packers and a “fringe” comprised of all other packers large enough to appear in our data, in both 2005 and 2019. Notably, Table 2: Packer Statistics

Packer	Number of Plants		Average Capacity		Total Capacity	
	2005	2019	2005	2019	2005	2019
Tyson	10	6	3,655	4,800	36,550	28,800
Cargill	6	6	4,650	3,983	27,900	23,900
JBS	.	8	.	3,525	.	28,200
National	2	2	6,500	6,000	13,000	12,000
Swift	4	.	3,963	.	15,850	.
Smithfield	4	.	2,081	.	8,325	.
Fringe	17	18	1,103	1,270	18,745	22,855
Total	43	40	2,799	2,894	120,370	115,755

Notes: The table summarizes the number of plants, average plant capacity, and total packer capacity (summing across plants) for each of the major packers and a fringe comprised of all other packers, in both 2005 and 2019. Capacity is measured in head per day. Based on data on large packing plants obtained from *Cattle Buyers Weekly*.

the plants of the major packers are considerably larger than those of the fringe. The conventional wisdom is that some scale economies exist at the plant-level, and this is corroborated by economic research (e.g., MacDonald et al., 2000; Morrison Paul, 2001a,b). Marginal costs appear to be roughly constant in output, with labor and energy being the two largest components.¹⁰¹ To our knowledge, the literature has not documented the existence of scope economies associated with multi-plant ownership.¹⁰²

¹⁰¹ The Sterling Beef Profit Tracker, a proprietary model that estimates the variable costs of feedlots and packers, maintains the assumption of constant marginal costs. See www.sterlingmarketinginc.com, last accessed November 10, 2021. Plants typically schedule operations a number of weeks in advance, with labor being guaranteed a certain number of hours each week. Thus, labor costs may be fixed over time horizons that span only a few weeks, but variable over somewhat longer time horizons.

¹⁰² One industry expert points out that having multiple plants may allow packers to mitigate the impact of unanticipated plant closures that occur at times (e.g., due to food safety issues or other problems). See Pudenz and Schulz (2022) for a discussion.

Figure 1 shows the location of large packing plants in 2019. Most of the capacity is in the High Plains area of the country, including eastern Colorado, western Iowa, Kansas, Nebraska, Oklahoma, and Texas. The transportation of fed cattle can be expensive, both due to the trucking cost and because fed cattle lose weight (and value) during the trip. Thus, packing plants tend to procure cattle from nearby feedlots.¹⁰³ For comparison, Appendix Figure B.1 shows the density of fed cattle within counties. Finally, as there are some plant closures that occur during the sample period, Appendix Figure B.2 provides the location of packing plants in 2005.

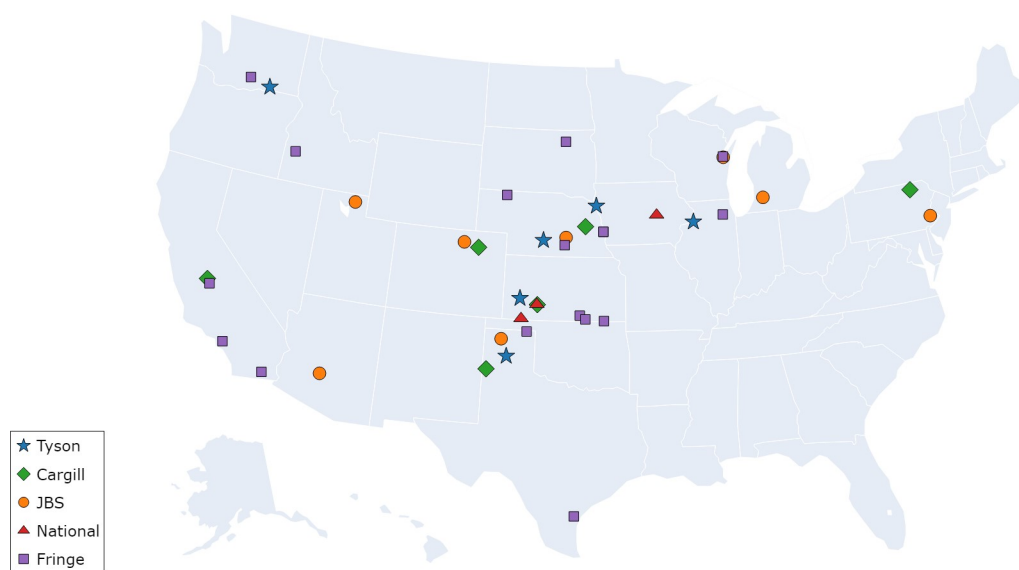


Figure 1: Locations of Large Beef Packing Plants in 2019

Notes: The map plots the locations of large beef packing plants, including those of Tyson, Cargill, JBS, and National Beef, based on data obtained from *Cattle Buyers Weekly*.

Many transactions between feedlots and packers are based on negotiations that occur in what we refer to as the “cash market.” Each week, feedlots provide a list of fed cattle that are available for purchase and packers call to submit bids.¹⁰⁴ Packers have extensive information about the competitive environment on a week-to-week basis, that they obtain from conversations with feedlot managers and daily USDA reports, among other sources. Most transactions in the cash market clear within a few hours late in the week. Prices usually are based either on the carcass

¹⁰³ One study of transactions over 1992-1993 finds that 53% of cattle is shipped under 100 miles, 32% is shipped between 100 and 300 miles, and 15% is shipped more than 300 miles (Capps et al., 1999).

¹⁰⁴ By custom, the first packer to bid on the cattle is “on the cattle” and is given an opportunity to revise its bid in the event that a higher bid is received. This appears to provide an incentive for packers to make a first bid, but may discourage competing bids. A recent investigation by the USDA concluded that “most pens with bid data only showed one packer bidding” (USDA, 2014).

weight of the animal as measured at the packing plant, possibly adjusted for the yield and grade of the beef, or on the live weight of the cattle as measured at the feedlot.

Other transactions are conducted under *alternative marketing arrangements* (AMAs). Under an AMA, the feedlot agrees to sell its cattle to a packer at some future date, with the price determined by some formula. There are two types of AMAs that are typical. In the first—what we refer to as a “formula contract”—prices are pegged to those realized in the cash market near the delivery date of the cattle. Average cash market prices are publicly known because the USDA collects and disseminates data on prices. In the prototypical arrangement, the feedlot informs the packer when it has cattle that are ready for purchase, and the packer then sets the delivery date. The payment to the feedlot equals the average cash market price from the week prior to delivery, with adjustments for the yield and grade; the payment may incorporate a small premium.¹⁰⁵

Under the second type of contract—a forward contract—the payments are pegged to the futures price on the Chicago Mercantile Exchange (CME).¹⁰⁶ The futures price can fluctuate over time, although it converges with cash market prices as the delivery month approaches. The feedlot determines when to exercise the option to set the transaction price at the futures price, at some point between the contracting date and the delivery date. Whereas formula contracts eliminate the risk to a feedlot of not finding a buyer on the cash market, forward contracts also mitigate price risk.

Figure 2 plots the fraction of fed cattle sales that occur through the cash market, with formula contract, and with forward contracts. Historically, the cash market has accounted for the bulk of sales, but this remains true only in the early years of our sample. By the later years, the cash market accounts for between 20% and 30% of sales, with formula contracts accounting for most of the change. As smaller packers usually rely exclusively on the cash market (e.g. RTI International, 2007; MacDonald and McBride, 2009), this trend is even more pronounced within the major packers individually. As formula contracts are pegged to the cash market and forward contract prices are pegged to futures prices (which ultimately converge to the cash market), increasingly the prices that packers pay feedlots for cattle is determined by a relatively small number of cash market transactions.

Data and Summary Statistics

Our main data source—the Agricultural Marketing Service (AMS) website of the USDA—provides information on fed cattle purchase quantities and prices. Under the Livestock Mandatory Reporting (LMR) Act of 1999, any packer who slaughters at least 125,000 cattle a

¹⁰⁵ In our empirical analysis, we find that cash market prices and formula prices indeed are nearly identical on a week-to-week basis; this also is corroborated in Perry et al. (2005).

¹⁰⁶ The futures contracts available for trade on the CME require that cattle be delivered to an approved livestock yard within 18 months, during a specific February, April, June, August, October, or December. Typically, the futures contract is selected so that the delivery month of the contract aligns with the expected shipment of cattle from the feedlot to the packer.

year must provide the USDA with twice-daily reports on the volumes and terms of trade for fed cattle transactions and boxed beef sales (Perry et al., 2005; Mathews,

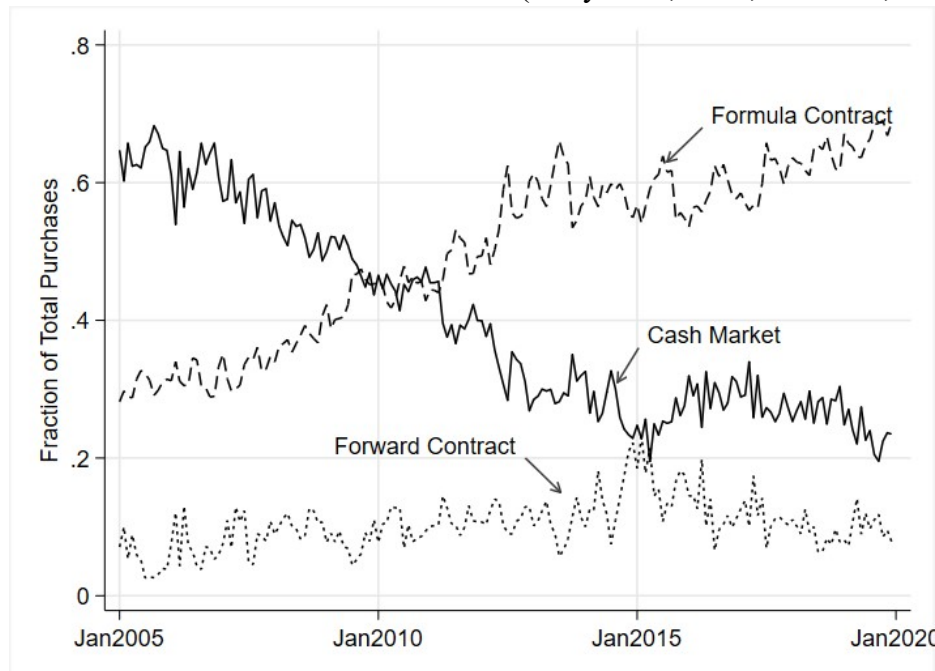


Figure 2: The Prevalence of Purchase Methods Over Time

Jr. et al., 2015). According to the USDA, the reports cover 92% of all fed cattle transactions. The USDA aggregates these reports to the region-week level and disseminates the resulting data in order to facilitate price discovery.

Specifically, we cull our data from the Weekly Direct Slaughter Cattle Detail Reports over 2005-2020,¹⁰⁷ which provide detailed information about the cattle purchases, including the date, region of procuring packer plant is located, whether formula and forward contracts are used, the number of heads, the free-on-board (FOB) price, and the average weight of the cattle. In some of our reduced-form empirical work, we aggregate the data to construct a time-series with observations at the nation-week level (Section 3). For the structural model, we aggregate the data to construct observations at the region-year level (Section 4).

Table 3 provides summary statistics on average price and total quantity, based on the region-year observations.¹⁰⁸ As shown, the USDA provides information for nine

¹⁰⁷ See <https://www.ams.usda.gov/market-news/national-direct-slaughter-cattle-reports>, last accessed November 10, 2021. We exclude earlier data available for 2002-2004 because disease (BSE) discovered in the American and Canadian herds over 2002-2003 likely affected equilibrium outcomes in a manner difficult to model empirically (RTI International, 2007).

¹⁰⁸ We deflate prices to be in real 2015 dollars. We use the Consumer Price Index: Total All Items for the United States. See <https://fred.stlouisfed.org/series/CPALTT01USM661S>, last accessed November 11, 2021. As the AMS purchase quantities do not reflect all transactions, we scale them by a multiplicative constant so that they align with data from the Census of Agriculture. See Appendix A.

Table 3: Summary Statistics

Region	Average Price		Total Quantity	
	Mean	St. Dev.	Mean	St. Dev.
Western States	1,977	274	81,380	15,790
Colorado	2,035	295	151,290	38,676
Western Cornbelt	2,032	304	207,942	44,554
Kansas	1,965	280	470,144	126,744
Nebraska	2,048	304	446,718	73,607
Northeastern States	1,860	308	7,803	2,438
Texas Region	1,915	270	488,022	104,080
Eastern Cornbelt	1,921	290	30,916	6,646
Eastern Mountain	2,030	306	85,873	17,708

Notes: Units of observation are at the region-month level over 2005-2019. Average price is in January 2021 dollars per head, and represents the average amount paid by packing plants in the region. Total quantity is the number of heads purchased by packing plants in the region and is in live animal equivalent units, where a dressed animal is equal to 1.59 live animals. The western states include Arizona, California, Idaho, Nevada, Utah, and Oregon. The western cornbelt includes Iowa, Minnesota, and Missouri. The northeastern states include Ohio, Virginia, West Virginia, and all states to the northeast of those three. The Texas region includes New Mexico, Texas, and Oklahoma. The eastern cornbelt includes Illinois, Indiana, Kentucky, Michigan, and Wisconsin. The eastern mountain region includes Montana, North and South Dakota, and Wyoming. Based on data obtained from the *Agricultural Marketing Service* of the USDA.

distinct regions that differ in the quantity of cattle purchased. The price of a head of cattle is around \$2,000. The majority of purchases occur in the High Plains, including the Kansas, Nebraska, and Texas regions.

As the USDA defines these regions for reporting purposes, they should not be interpreted as economically independent geographic areas. Indeed, fed cattle can be (and often are) transported from one region to another. To support the estimation of an economic model with realistic spatial relationships, we obtain information on the location of packing plants and the location of fed cattle. For the former, we use proprietary data obtained from *Cattle Buyers Weekly* on the largest U.S. packing plants over 2005 to 2020, including their capacity and their location.¹⁰⁹ For the latter, we rely on the Census of Agriculture, which provides the quantity of fed cattle sold from each county at five-year intervals.¹¹⁰ We interpolate across years using monthly data published by the Economic Research Service (ERS) of the USDA on the total (national) slaughter.¹¹¹ Appendix A provides details on the interpolation.

¹⁰⁹ We consider only packing plants that process fed cattle, and exclude those that process only cows and bulls. The latter typically are located near dairy farms away from the High Plains.

¹¹⁰ The data can be downloaded from the Census of Agriculture Quick Stats website: <https://quickstats.nass.usda.gov/>, last accessed November 11, 2021. We obtain data that cover the years 2002, 2007, 2012, and 2017.

¹¹¹ The data can be downloaded from the website of the ERS. See <https://www.ers.usda.gov/data-products/meat-price-spreads/>, last accessed November 11, 2021.

We obtain the average price that packers receive for boxed beef from the monthly ERS data.¹¹² This variable is referred to as the wholesale value in the ERS data and is measured in cents per pound. We also obtain a measure of the price paid to feedlots from the same data source, which we construct as the gross farm value measured in cents per ton minus the value of byproduct created in the production of beef. We refer to the packer spread as the difference between these values. For the structural model, we aggregate these data to construct a time-series of annual observations. We expect the average price reported by ERS to reflect well the prices obtained by individual packers because boxed beef typically is considered a commodity product: transportation costs are low, boxes of equivalent quality and yield grades are essentially homogeneous, and downstream customers purchase on a weekly basis under short-term contracts.¹¹³

Finally, we obtain the national market share of fed cattle slaughter volume for Tyson, Cargill, JBS, and National Beef in each year over 2011-2017 by reverse engineering an exhibit that is provided in a recent legal document.¹¹⁴ The raw data are obtained from a proprietary report of *Cattle Buyers Weekly* titled “Steer and Heifer Slaughter Market Share,” to which we do not have access.¹¹⁵ The volume-based market shares are somewhat higher than the capacity-based market shares (Table 1), consistent with the major packers having relatively low marginal cost.

¹¹² The monthly price data is available here: <https://www.ers.usda.gov/data-products/meat-price-spreads/>, last accessed March, 25, 2022.

¹¹³ For example, see paragraph 24 of the Complaint filed by the DOJ in 2008 to enjoin the acquisition of National Beef by JBS. The Complaint is available at the DOJ website: <https://www.justice.gov/atr/case-document/complaint-137>, last accessed November 11, 2021.

¹¹⁴ The legal document is a Complaint filed by R-CALF, an association of ranchers, stockers, and feedlots, against the major packers. It is available for download: <https://www.r-calfusa.com/wp-content/uploads/2019/05/Cattle-complaint.pdf>, last accessed November 11, 2021. See Figure 1 (page 3) in the Complaint.

¹¹⁵ See <http://www.cattlebuyersweekly.com/users/rankings/packerssteerheifer.php>, last accessed November 11, 2021.

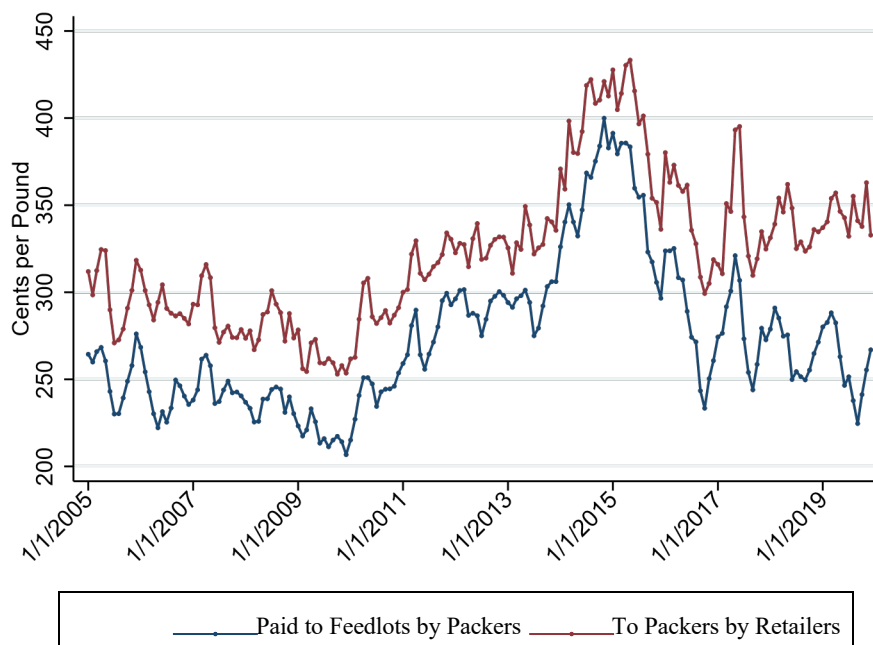


Figure 3: Prices Over Time

Empirical Pricing Patterns

Prices and the Packer Spread

Packer are intermediaries that connect the upstream portion of the beef supply chain (i.e., ranchers, stockers, feedlots) to retailers that sell beef to final consumers. Thus, their ability to earn profit depends on the prices that they pay for cattle, the prices they obtain from retailers, and whether the gap between the two—what we refer to as the “packer spread”—exceeds the average cost of processing cattle.

In Figure 3, we plot the average price that packers pay for cattle and the average price they receive for beef, in each month over 2005-2019 (in cents per pound). We observe two patterns of interest. First, these prices fluctuate over the sample period, probably due to relative shifts in the supply of cattle and demand for beef.¹¹⁶ Second, although the price series track each other to a reasonable degree for most of the sample period, they diverge over 2015-2019, as the price paid to feedlots falls without a commensurate decrease in the price received from retailers.

Figure 4 plots the gap between the two price-series — the packer spread — over the

¹¹⁶ The R-Calf Complaint claims that the increase in prices over 2009-2014 are due to due to strong beef demand and shortage of fed cattle due to droughts of 2011-2013 (page 4).

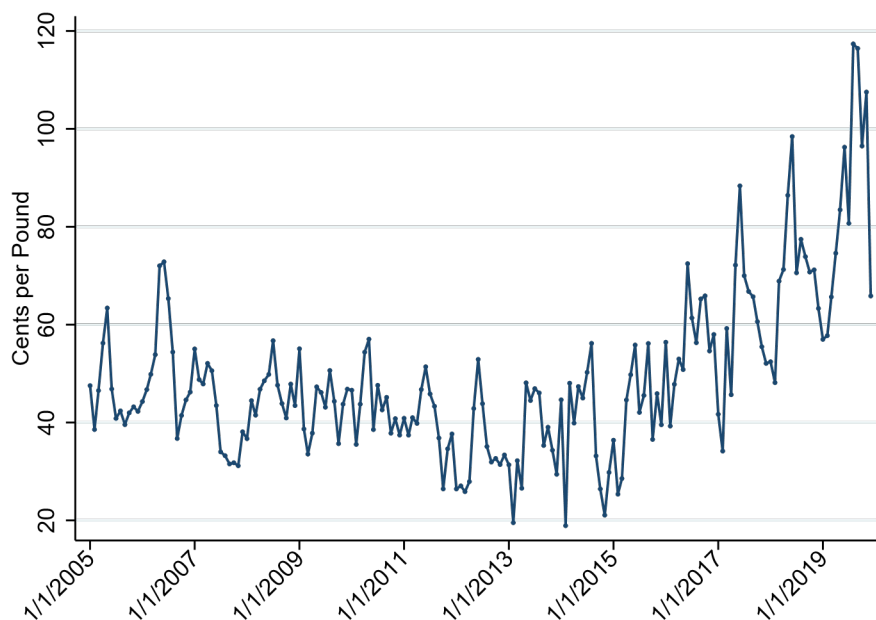


Figure 4: The Packer Spread Over Time

sample period. Between 2005 and 2014, the packer spread exhibits a modest decline, with an average around 40 cents per pound. Then, over 2015-2019, it trends sharply upwards, and in most months near the end of the sample, the packer spread exceeds 80 cents per pound. The simplest explanation for the increasing spread would be an increase in the marginal cost of processing cattle—however, we are not aware of any empirical support for that explanation. Therefore, it is natural to explore whether the increase in the packer spread might be attributable to an increased exercise of market power on the part of the packers.

Alternative Marketing Arrangements and Prices

We now develop the idea that AMAs distort the pricing incentives of packers in the cash market. We start with a counterfactual in which profit-maximizing packers acquire all their cattle in the cash market. In this counterfactual, each packer faces the standard pricing trade-off: a higher bid on a lot of cattle increases the probability that the packer wins the cattle, but reduces the profit that can be earned on the cattle. In the presence of AMAs, an additional consideration is introduced, as a higher bid also raises the price that the packer must pay for cattle acquired with AMAs. As a result, economic theory suggests that cash market prices are likely to be lower, the greater the prevalence of AMAs. As the prices that feedlots obtain with AMAs are linked to realized prices on cash market—either directly or indirectly through the CME future prices—the presence of AMAs broadly depresses the prices paid for cattle.

That AMAs or equivalent contracts can distort pricing incentives has been recognized in the economics literature both as a general matter (Mahenc and Salanie, 2004) and in the specific

context of the cattle industry (Xia and Sexton, 2004).¹¹⁷ As we formalize later, economic theory indicates that the extent to which realized prices respond to these incentives depends primarily on the relative amount of cattle transacted through the cash market and the AMAs, and on the ability of packers to influence cash market prices.¹¹⁸ Thus, the dramatic increase in the prevalence of AMAs over the sample period (Figure 2) paired with the high national market shares of the major packers (Table 1), suggests that AMAs may contribute to the increase in the packer spread.

To provide some empirical support for the economic theory, we examine whether cash market prices tend to be lower when a larger fraction of cattle is purchased under AMAs. We focus on the weekly time-series of purchases in the High Plains, which accounts for the bulk of cattle purchases nationally. As we cannot rule out that cash market prices have a unit root,¹¹⁹ we specify our regression equation in differences:

$$\Delta \log(p_t) = \beta_0 + \beta_1 \Delta \log(w_t) + \beta_2 \log(p_t) + \beta_3 \Delta \log(q_t) + \epsilon_t \quad (1)$$

where $\Delta \log(p_t) = \log(p_t) - \log(p_{t-1})$ is the change in the cash market price (in logs), $\Delta \log(w_t) = \log(w_t) - \log(w_{t-1})$ is the change in the fraction of cattle purchased under AMAs (in logs), $\Delta \log(q_t) = \log(q_t) - \log(q_{t-1})$ is the change in the total quantity of cattle purchased (in logs), and ϵ_t is a stochastic error term.¹²⁰ We specify our variables using the natural logs solely to ease interpretation of the parameter estimates. Estimation is with ordinary least squares (OLS). Whether our estimate of β_1 as reflects a causal effect of AMAs on cash market prices depends in part on whether it is reasonable to think of quantities being exogenously determined, a matter to which we return shortly. Table 4 summarizes the regression results. In column (i) we use only the fraction of cattle

Table 4: Time-Series Regression Analysis

¹¹⁷ See also the discussion in MacDonald (2006).

¹¹⁸ Thus, if packers do not have the ability to influence cash market prices, then economic theory suggests that AMAs should be competitively benign.

¹¹⁹ A Dickey-Fuller test of the hypothesis that a unit root exists obtains p -value of 0.5121.

¹²⁰ For the purposes of this analysis, we exclude cattle transacted with forward contracts because the connection between cash market prices and forward contract prices are unclear on a week-to-week basis. Data are not available for three weeks in 2014 due to a government shutdown, and we exclude weeks on either side of that window in order to accommodate estimation in differences.

Variable	Parameter	(i)	(ii)	(iii)	(iv)	(v)	(vi)
Δw_t	β_1	-0.059 (0.005)	-0.055 (0.009)	-0.045 (0.009)	-0.028 (0.015)	-0.059 (0.016)	-0.075 (0.020)
$\log(p_t)$	β_2		-0.005 (0.003)	-0.005 (0.003)	0.050 (0.021)	-0.005 (0.006)	-0.029 (0.013)
$\Delta \log(q_t)$	β_3		0.005 (0.009)	0.015 (0.009)	0.019 (0.014)	0.022 (0.016)	0.003 (0.018)
Fixed Effects		None	None	Week	Week	Week	Week
Sample Period		Full	Full	Full	Early	Mid	Late
Observations		772	772	772	261	250	261

Notes: The table summarizes the results of OLS regression. The dependent variable is $\Delta \log(p_t)$, the change in the cash market price (in logs). The units of observation are weeks over the period 2005-2019. In columns (iv), (v), and (vi), estimation is conducted on the subsamples of weeks overs 2005-2009, 2010-2014, and 2015-2019, respectively. Shown are the regression coefficients and the standard errors (in parenthesis).

purchased under AMAs as an independent variable; the point estimate is statistically significant and suggests that a one percent increase the fraction of cattle purchased under AMAs is associated with a 5.9% reduction in the cash market price. Columns (ii) and (iii) control for cash market prices (in levels) and the total quantity of cattle purchased; the latter column also includes week fixed effects. Comparing across columns, we obtain coefficients on AMA purchases that similar in magnitude and statistical significance. Columns (iv)-(vi) focus on 2005-2009, 2010-2014, and 2015-2019, respectively, and suggest that the relationship between AMA purchases and cash market prices might be more pronounced in the later years.

This negative correlation between the AMA purchases and cash market prices has been developed earlier in the literature (e.g., RTI International, 2007; Taylor, 2008). A question of interpretation is whether this indeed reflects the causal effect of AMAs that is suggested by economic theory. From an econometric standpoint, our regression coefficients obtain an unbiased estimate of a causal effect if the fraction of cattle purchased under AMAs is orthogonal to the error term, which itself can be interpreted as a price-shifter. Therefore, it matters whether quantities are exogenously determined.

This is a interesting question in the context of the cattle industry. Over a period of years, the quantity of cattle available for purchase adjusts with demand conditions, as ranchers determine the level of breeding. Over a somewhat shorter time horizon, spanning perhaps multiple months, the quantity of cattle available for purchase is effectively fixed because all fed cattle are slaughtered to produce beef. Indeed, we maintain an assumption of fully inelastic supply in our structural model of the industry (below), which we estimate on annual data. Yet over an even shorter time horizon, perhaps no longer than a handful of weeks, supply elasticity reemerges, as feedlots have some ability to substitute inter-temporally in order to obtain better pricing terms.

It is this shortest time horizon that is relevant for our time-series regression analysis. The specific threat to causal inference is that feedlots may increase their cash market sales more than their AMA sales in response to favorable pricing conditions, which could generate or contribute to a negative correlation between AMA purchases and cash market prices. As we currently do

not have enough information to rule out such a supply response, we simply interpret the regression as providing empirical evidence that is consistent with the economic theory that AMAs reduce cash market purchases.

Empirical Model of Oligopsony Competition

We present a model of oligopsony competition that incorporates the presence of formula contracts. The model generalizes the findings of (Mahenc and Salanie, 2004; Xia and Sexton, 2004) beyond the duopoly setting, and provides a framework for empirical analysis. In this section, we describe the model, and analyze the pricing incentives that arise. We plan to estimate or calibrate the structural parameters in our future work, and develop policy implications for the cattle industry.

Framework

We examine a model of oligopsony competition among packers in the cash market. The model incorporates the most notable features of the industry, including the cost of transporting fed cattle, the short term inelasticity of supply, and the presence of formula contracts and forward contracts. We take as given the locations of the plants and the cattle on feed, as well as the contract positions of the packers. In the baseline model, we also assume that each packer sets prices that maximize its profit; we extend the model to price coordination in an extension.

Formally, the model is a game of perfect information that plays out over $t = 1, 2, \dots$ periods. We interpret periods as years in the empirical implementation. In each period, there exist $f \in F_t$ packers, each with a set J_{ft} of processing plants that have a fixed physical location. There also exist N counties, each of which contains a mass Q_{nt} of infinitesimally small feedlots. Thus, in period t , there are $Q_t = P_n Q_{nt}$ cattle available for slaughter; these can be purchased via formula contract or on the cash market.¹²¹

In each period, packers observe the economic state, Ψ_t , which includes demand and cost conditions, the number and location of cattle available for slaughter, and the formula contracts. Letting the quantity of cattle purchased via formula contract by each packer f from each county j be $(x_{fjt})_{f \in F_t, \forall n}$, the quantity of cattle available for purchase in the cash market is given by $M_{nt} = Q_{nt} - \sum_{f \in F_t} x_{fjt}$.

Packers then simultaneously determine the upstream price that each plant $j \in J_{ft}$ offers for cattle of each county n in the cash market, i.e., $(p_{jnt})_{j \in J_{ft}, \forall n}$. The proportion of fed cattle in county n that are sold to plant j in the cash market is determined by a supply function, $s_{jnt}(p_{nt}; \Psi_t)$, where p_{nt} is the vector of prices in county n .

¹²¹ We treat formula contracts and forward contracts as identical for the purposes of the model, which is appropriate because—given the time horizon of one year—the prices that are obtained with both are ultimately determined by cash market outcomes.

As all fed cattle are (eventually) sold for slaughter,¹²²¹²³ we assume that market supply is perfectly inelastic, in the sense that feedlots select among the packing plants, without an outside option:

$$\sum_j s_{jnt}(\mathbf{p}_{nt}; \Psi_t) = 1 \quad (2)$$

and that packers convert fed cattle into boxed beef in fixed proportions. Thus, the total quantity of boxed beef—aggregating across packers—is determined by the stock of fed cattle, Q_t . As boxed beef is a commodity product, we let its downstream price be determined by an inverse demand schedule that we denote $p_t^d(\Psi_t)$.²⁵

The prices set by packers in the cash market determine the terms-of-trade for purchases made with formula contracts. Specifically, we assume that the contract price equals the average cash market price:

$$\bar{p}_t(\mathbf{p}_t; \Psi_t) = \sum_{n=1}^N \frac{M_{nt}}{M_t} \sum_{j \in \mathcal{J}} s_{jnt}(\mathbf{p}_{nt}; \Psi_t) p_{jnt} \quad (3)$$

where $M_t = \sum_n M_{nt}$ and \mathbf{p}_t is a vector of all cash market prices. Finally, we denote the marginal cost of packer f as $c_{ft}(\Psi_t)$.

With these assumptions in place, the profit of packer f in period t is given by

$$\begin{aligned} \Pi_{ft}(\mathbf{p}_t; \Psi_t) = & (p_t^d(\Psi_t) - c_{ft}(\Psi_t) - \bar{p}_t(\mathbf{p}_t; \Psi_t)) x_{ft} \\ & + \sum_{j \in \mathcal{J}_{ft}} \sum_n (p_t^d(\Psi_t) - c_{ft}(\Psi_t) - p_{jnt}) s_{jnt}(\mathbf{p}_{nt}; \Psi_t) M_{nt} \quad (4) \end{aligned}$$

where $x_{ft} = \sum_n x_{fnt}$ is the total quantity of cattle purchased by packer f with formula contracts. In the profit function, the first term represents the contribution of formula contract purchases, and the second term represents the contribution of cash market purchases. We conceptualize the *markdown* obtained by a plant as the net revenue that the plant obtains from the cattle less the price it pays to procure the cattle:

¹²² We have confirmed this with multiple industry experts. The conversion of feed into muscle slows once cattle reach around 1250-1350 pounds, which dictates the timing of slaughter. Feedlots that are unable to find a nearby buyer at the economically optimal time—typically a 2-4 week period—may choose to ship the cattle greater distances or feed the cattle until a nearby buyer emerges. Thus, although feedlots and packers have some ability to substitute between weeks, the short run elasticity of supply is essentially zero. Ranchers can adjust the size of the herd in the long run. The adjustment process itself is interesting in and of itself. An increase in the value of beef can initially shrink the supply of fed cattle, as ranchers withhold more calves for breeding purposes (e.g., Rosen et al., 1994).

¹²³ Thus, we do not incorporate packer market power in the downstream market. Consider a thought experiment that tracks the durable goods monopoly problem of Coase (1972). If packers attempt to sell less beef at a higher price, they may be no buyers, even if some have a willingness-to-pay that exceed the higher price. The reason is that the packers cannot commit not to subsequently selling the remaining beef at a lower price. The buyers, anticipating this, may prefer to delay their purchases. Thus, there is at least some theoretical justification for our approach.

$$\text{markdown} \equiv p_t^d(\Psi_t) - c_{ft}(\Psi_t) - p_{jnt} \quad (5)$$

Differentiating the profit function with respect to a plant- and county-specific price p_{kn} , for some $k \in J_f$, obtains the following first order condition:

$$(p^d - c_f - p_{kn}) \frac{\partial s_{kn}}{\partial p_{kn}} M_n - s_{kn} M_n + \sum_{j \in J_f, j \neq k} (p^d - c_f - p_{jn}) \frac{\partial s_{jn}}{\partial p_{kn}} M_n = \frac{\partial \bar{p}}{\partial p_{kn}} x_f \quad (6)$$

The left side captures the net marginal benefit that packer f obtains in the cash market from increasing p_{kn} . A higher price increases the volume of cattle procured at plant k , but it also decreases the markdown at plant k and cannibalizes profit at the packer's other plants. In the absence of formula contracts, $x_f = 0$, and the packer f chooses a price that makes this net marginal benefit equal to zero. The right side of the equation (6) captures the influence of formula contracts. To the extent that a higher price increases the market average price, it reduces the profit earned on cattle procured with formula contracts. Therefore, the presence of formula contracts tends to exert downward pressure on the prices paid to feedlots.

A cash market equilibrium in period t is defined by a set of prices, $(p_{jnt})_{\forall j,n}$, that satisfy equation (6) for every plant and county. We assume that a unique equilibrium exists. With the parameterizations of the model that we use (and that are described next), we have never encountered a game without an equilibrium. Furthermore, in a number of numerical experiments, we have not found multiple equilibria in any game.

Parameterizations

We place parametric restrictions on the supply and marginal cost functions in order to make empirical progress. For supply, we assume that the market share that packing plant j obtains in county n takes a logit form:

$$s_{jn}(\mathbf{p}_n; \Psi, \boldsymbol{\theta}_0) = \frac{\exp\{\beta_1 p_{jn} + \beta_2 d_{jn}\}}{\sum_{k \in \mathcal{J}} \exp\{\beta_1 p_{kn} + \beta_2 d_{kn}\}} \quad (7)$$

where d_{jn} is the straight-line distance between the packing plant and the centroid of the county, $\beta_1 > 0$ is a price sensitivity parameter, and $\beta_2 < 0$ is a distance sensitivity parameter (we remove period subscripts henceforth for notational brevity). The ratio β_2/β_1 is a measure of feedlots' willingness-to-pay for proximity to the packing plant. We interpret it as the cost of transportation, though the concepts are not equivalent if distance affects feedlot preferences for other reasons.¹²⁴

For marginal cost, we assume that

$$c_f(\Psi, \boldsymbol{\theta}_0) = \alpha_0 + \mathbf{w}'_f \boldsymbol{\alpha}_1 + \zeta_f \quad (8)$$

where \mathbf{w}_f is a vector of (potentially time-varying) cost shifters, $(\alpha_0, \boldsymbol{\alpha}_1)$ are parameters, and ζ_f is a packer-specific fixed effect. Among the cost shifters that we consider are capacity (aggregated to the packer level) and a linear time trend; these have limited explanatory power. We assume that the same fixed effect applies to Swift, Smithfield, and JBS; recall that JBS entered the market by acquiring the other two packers. As with the supply function, our specification of the marginal cost function restricts the sources of heterogeneity that affect equilibrium outcomes.

To estimate the model, we require information on $(x_f)_{f \in \mathcal{F}}$ and $(M_n)_{\forall n}$. We obtain the county-specific quantity of cattle (Q_n) using data from the Census of Agriculture and ERS (Section 2.2).

We obtain the total quantity of cattle procured with formula contracts $(\sum_{f \in \mathcal{F}} x_f)$ from the AMS data, and allocate it across the major packers in proportion to their capacity shares to obtain $(x_f)_{f \in \mathcal{F}}$. We assume that fringe packers rely exclusively on the cash market. We also assume that formula contracts are distributed across counties in proportion to Q_n , which allows us to infer $(M_n)_{\forall n}$.

¹²⁴ The logit supply system conveys two practical advantages in estimation. First, it provides simple analytical solutions for supply of cattle. Our estimation routine requires that equilibrium be computed numerically for every candidate set of parameters, so the lighter computation burden is meaningful. Second, it implies that cattle supply is a continuous function of prices. Again because we compute equilibrium for each candidate set of parameters, this translates to continuity in the objective function.

Formula Contracts and Pricing Incentives

To explore the implications of formula contracts on cash market outcomes it is useful to consider the case in which firms are symmetric with respect to the feedlots in some arbitrary county, n . Within the context of the model, symmetry can be created if each packer has the same marginal cost ($c_f = c$), the same quantity of formula contracts ($x_f = x$), and a single plant that is the same distance from the county ($d_{fn} = d_n$). With symmetry and the logit supply assumption, the first order conditions of equation (6) simplify to obtain the following characterization of equilibrium markdowns:

$$p_{\text{markdown}}^d - c - p_n = \underbrace{\frac{1}{\beta_1} \frac{1}{1 - s_{fn}}}_{\text{standard oligopsony}} + \underbrace{\frac{1}{\beta_1} \frac{1}{1 - s_{fn}} \frac{x}{M}}_{\text{formula contract effect}} \quad (9)$$

A greater number formula contracts increases the markdown; for a given marginal costs and downstream price, this lowers the price paid to feedlots.

If a packing plant procures 100 cattle with formula contracts, and a total of 500 cattle are traded on the cash market (across all packers), then the ratio x/M is 0.20, and the presence of the formula contract increases markdowns by 20%. If the ratio between a packer's formula purchases and the size of the cash market is 0.75 then formula contracts increase markdowns by 75%. As formula contracts and forward contracts together appear to account for 80% of transactions by 2019, and these are split among the largest four packers, to a rough approximation the value of x/M that obtains in 2019 is 1.00, suggesting the formula contracts may increase markdowns by 100%. Another manipulation of the first order conditions yields

$$p^d - c - p_n = \frac{1}{\beta_1} \left(\frac{1}{1 - s_{fn}} \right) \left(1 + \frac{x}{M} \right) \quad (10)$$

which makes clear that the effect of formula contracts interacts with the amount of standard oligopsony power. In dollar terms, the impact of formula contracts is greater, the greater is the markdown that would arise without formula contracts. Thus, formula contracts may have substantial consequences for the terms of trade in some settings but (at least in dollar terms) not in other settings.

Long-Term Implications

We have maintained the assumption that the downstream price of boxed beef is determined by an inverse demand schedule and the (fixed) supply of cattle. Thus, we assume that packers have no ability to exercise downstream market power, and that the prices that packers pay for cattle have no direct bearing on downstream prices. It is possible that these are reasonable approximations in the short run. However, in the long run, the supply of cattle adjusts with the price of fed cattle. If packers are able to exercise greater buyer power, and therefore lower the price of fed cattle, then the incentive to supply fed cattle diminishes. This creates a long run connection between the upstream and downstream markets. If fewer cattle are produced, the packers must sell less boxed

beef and, all else equal, this raises downstream prices. Therefore, it is possible that formula contracts may increase the packer spread from both sides in the long run, raising the price of boxed beef and lowering the price of fed cattle. Empirically quantifying this connection is likely to be beyond the scope of the research project.

Policy Recommendation

Our research indicates that eliminating AMAs in which prices are pegged to the cash market price would better align the price of fed cattle with the economic value that is provided by feedlots and other upstream participants. Thus, a regulatory solution that would sever the link between AMAs and the cash market could improve economic outcomes. There are purported benefits of AMAs: lower transaction costs, increased capacity utilization at feedlots and packing plants, and a greater incentive for feed-lots to make relationship-specific investments in cattle quality. It may be possible to preserve any such benefits with alternative contract designs.

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Appendix Materials

A Data and Estimation Details

A.1 Data

As described in Section 2.2, we obtain information about the quantity of fed cattle produced in each county from the Census of Agriculture. The census provides snapshots at five-year intervals. To approximate quantities in the intervening years, we use linear interpolation, adjusted to better match the time-series of national-level quantity as reported in ERS data. We detail the process here. The steps are as follows:

1. Starting with the Census of Agriculture for 2002, 2007, 2012, and 2017, we linearly interpolate the quantity of fed cattle produced in each county across years. For 2018 and 2019, we use the 2017 data. This creates initial estimates for each county over 2002-2019.
2. We compare the total fed cattle reported in the Census of Agriculture for 2002, 2007, 2012, and 2017 (summing across counties) to the total slaughter quantity reported by the ERS for the same years (summing across month). The ERS quantities are somewhat higher because they include imported fed cattle from Canada and Mexico as well as “packer-owned” cattle for which a transaction between a feedlot and a packer does not exist.¹²⁵
3. We linearly interpolate the gap between total Census of Agriculture quantity and total ERS quantity across years. This creates time-series with estimates for the annual amount of imported cattle and packer-owned cattle. We subtract this gap from the total ERS quantities to obtain an estimate of the total quantity of fed cattle purchased from feedlots in the United States. This is a time-series with annual observations; it aligns exactly with the total quantities in the Census of Agriculture in the years 2002, 2007, 2012, and 2017.
4. We adjust the initial county-level estimates from Step 1 by applying a multiplicative factor such that the county-level estimates, summed, equal the total quantities obtained in Step 3. A related issue is that AMS data obtained by the USDA from mandatory reporting covers does not include the purchases of the smaller packing plants. We apply a multiplicative factor to the region-year observations on purchase quantities so that (when summed across regions) they align with our calculations from Step 3 above.

B Additional Figures and Tables

¹²⁵ USDA (2014) reports that packer-owned cattle accounted for 7.5% of the cattle slaughtered, in data spanning January 2001-June 2010.

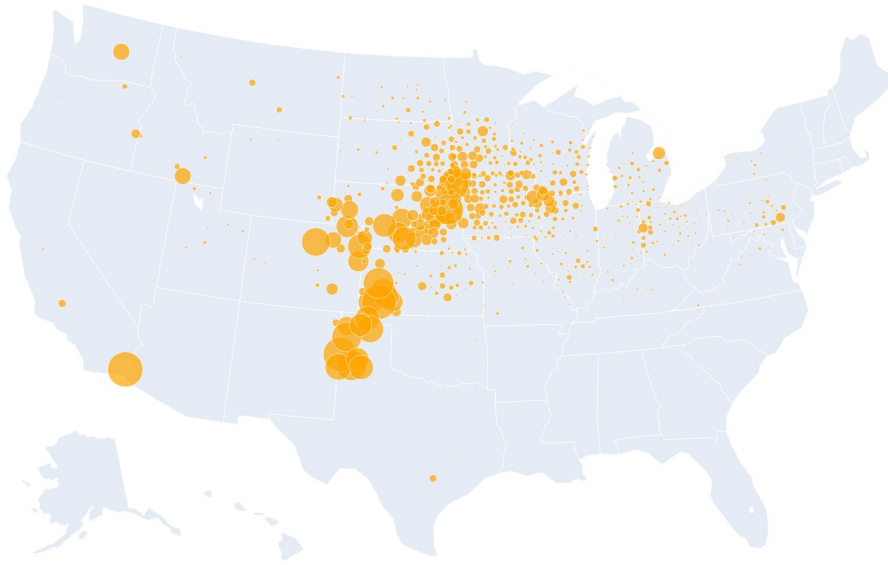


Figure B.1: Location of Fed Cattle by County, 2017

Notes: Counties that contribute to fed cattle sales are marked with orange circles; the sizes of the circles represent the quantity of sales. Data are from the 2017 Census of Agriculture.

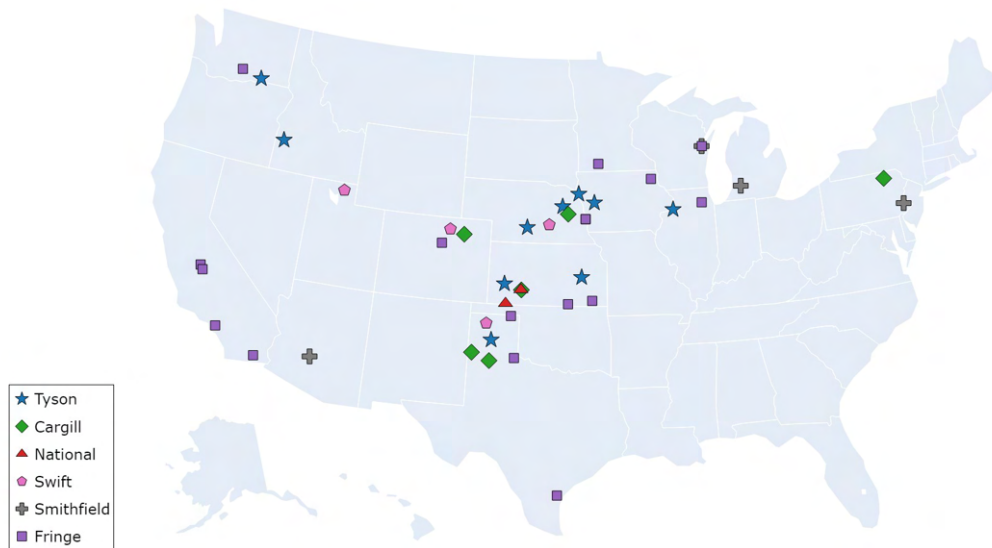


Figure B.2: Locations of Large Beef Packing Plants in 2005

Notes: The map plots the locations of large beef packing plants, including those of Tyson, Cargill, JBS, and National Beef, based on data obtained from *Cattle Buyers Weekly*.

The Northeast Dairy Dilemma: Solutions for Concentration in a Vertically Integrated Market

Peter L. Hardin & Zachary R. Shelley

Introduction

Public alarm concerning agriculture and food antitrust issues has focused on concentration in the beef processing industry, where four firms control 85% of United States' slaughter capacity. These beef processors operate to the detriment of both cattle producers and consumers.¹²⁶ That fact is substantiated by nearly a decade's data that shows both ranchers' down-trending market prices for cattle and consumers' ever-increasing retail beef costs.¹²⁷ These concerns are long overdue. However, another staple – milk – faces even more alarming concentration in New England and other major parts of the Northeast.¹²⁸ An estimated 85% of the market for conventional fluid milk processing is likely controlled by just one firm.¹²⁹

Twenty-two years ago, the Commissioner of the Massachusetts Department of Food and Agriculture warned that a joint venture controlled 80% of milk processing capacity in Massachusetts.¹³⁰ Later that year, a company representative boasted that the venture had an 80% market share of school milk contracts in the Commonwealth and that this level of control meant that the company had no interest in renegotiating prices with Commonwealth procurement officials.¹³¹ During the past two decades, the fluid milk processing industry in the Northeast has further concentrated.

Dairy Farmers of America (DFA), a dairy farmers' cooperative, has integrated both vertically and horizontally to dominate the Northeast milk industry from farm to the supermarket and school lunchroom. DFA acquired numerous rival milk processors and aggressively pressured

¹²⁶ Fact Sheet: The Biden-Harris Action Plan for a Fairer, More Competitive, and More Resilient Meat and Poultry Supply Chain (January 3, 2022), <https://www.whitehouse.gov/briefing-room/statements-releases/2022/01/03/fact-sheet-the-biden-harris-action-plan-for-a-fairer-more-competitive-and-more-resilient-meat-and-poultry-supply-chain/> (last visited Feb. 6, 2022).

¹²⁷ Bill Bullard, Beef Checkoff-Funded Packer Trade Group Attempts to Derail Effort to Address Food Crisis, R-CALF USA (May 26, 2021), <https://www.r-calfusa.com/beef-checkoff-funded-packer-trade-group-attempts-to-derail-effort-to-address-food-crisis/> (last visited Feb. 16, 2022).

¹²⁸ This Article defines the region as Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, New York City and Long Island, plus the counties lining both sides of the Hudson River Valley up to north of Albany.

¹²⁹ The DOJ's complaint in *United States v. Dairy Farmers of Am., Inc.* suggests a market share closer to 51%. 2020 WL 7066345 (N.D. Ill. Oct. 6, 2020). This share alone is remarkably large, but it is likely an underestimate as discussed *infra*.

¹³⁰ Letter from Jonathon Healy, Comm'r, Mass. Dep't Food and Ag., to Kenneth Becker, Exec. Dir., Ne. Dairy Compact Comm'n (February 9, 2000) (on file with author).

¹³¹ Pete Hardin, *Suiza's Stranglehold Yields No Competition for Massachusetts School Milk Bids*, *The Milkweed* (September 2000).

independent farmers and other cooperatives to join DFA. Such actions, in the Northeast and elsewhere, have propelled DFA to be the largest dairy processor not only in the Northeast, but globally.¹³² Dairy farmers, states' Attorneys General, and the federal Department of Justice have all filed and settled antitrust suits related to various aspects of DFA's conduct.¹³³ However, prior legal actions have not detailed the cumulative effect of DFA's anticompetitive actions. Prior litigation has not provided the structural remedies needed to restore a competitive equilibrium in the milk market.

This article will briefly summarize DFA's history of anticompetitive conduct and suggest remedies to protect both farmers' and consumers' interests. In particular, the Article recommends a menu of overlapping potential solutions, including:

- i) Forming a regional Dairy Antitrust Task Force of State Attorneys General to investigate anticompetitive acts in the region;
- ii) Investigating and making publicly available reports on historic farm-to-retail margins;
- iii) Investigating school milk contract bids in the region;
- iv) Breaking DFA into competing units both within and across regions;
- v) Entering into and actually monitoring consent decrees with DFA and other processors that have participated in anticompetitive conduct;
- vi) Terminating Class I pooling requirements in the USDA Northeast milk order;
- vii) Amending the Capper-Volstead Act to reflect the modern reality of farming cooperatives;
- viii) And if other remedies fail, regulating the Northeast milk processing industry as a utility.

Section II explains the structure of the fluid milk processing market, and the role of farmers' cooperatives permitted under the Capper-Volstead Act. Section III explains how predatory practices and anticompetitive mergers have driven consolidation in the Northeast's conventional fluid milk industry. Section IV provides the primary contribution of this paper, recommending a number of remedies that could establish a competitive equilibrium that eliminates excess milk processor profits – to the benefit of consumers and farmers. Section V concludes by encouraging state and federal regulators to use the tools proposed in this paper to confront DFA's conduct head-on and establish a long-term fix for the market.

Dynamics in the New England and Northeast Fluid Milk Market

Conventional fluid milk is either pasteurized milk or raw milk for pasteurization. This definition excludes niche products and brands such as organic, kosher, Lact-Aid, Fairlife, A2, and Ultra-High Temperature (UHT) milk.¹³⁴ Farmers sell their raw milk to milk processors. Processors

¹³² *Dairy Farmers of America Keeps Top World Ranking*, Dairy Global (Sep. 27, 2018), <https://www.dairyglobal.net/industry-and-markets/market-trends/dairy-farmers-of-america-keeps-top-world-ranking/> (last visited Feb. 16, 2022).

¹³³ See, e.g., *Allen v. Dairy Farmers of Am., Inc.*, 748 F. Supp. 2d 323 (D. Vt. 2010); *United States v. Dairy Farmers of Am., Inc.*, 2020 WL 7066345, at *1 (N.D. Ill. Oct. 6, 2020).

¹³⁴ UHT milk has a long shelf-life without refrigeration, and is widely distributed to fast-food outlets over supply chains that may stretch one-thousand miles.

then pasteurize the milk and sell packaged products to wholesalers, grocery stores, restaurants, and schools.

This regional market structure is complicated by the fact that farmers' cooperatives are provided limited exemptions from antitrust laws. Further, some cooperatives have vertically integrated so that they in part compete with and in part sell to the milk processors. The Capper-Volstead Act permits dairy farmers to form cooperatives for "collectively processing, preparing for market, handling, and marketing" their milk.¹³⁵ Without the Act, cooperatives would otherwise violate the Sherman Act as blatant horizontal restraints of trade. And the Capper-Volstead Act only provides a limited exemption from antitrust liability. Any cooperative, "as an entity engaged in business transactions, is as answerable to the antitrust laws as any other firm engaged in business transactions."¹³⁶ "Even with the exemption, agricultural producers are not free to unduly enhance the prices they charge, consolidate with or collaborate in anticompetitive conduct with nonproducers, or engage in conduct with no legitimate business purpose that is intended to reduce competition."¹³⁷

With the limited Capper-Volstead Act in mind, the Northeast supply chain for conventional fluid milk can be split into:

- (1) producers, including independent farmers and farmer cooperatives, that sell to
- (2) processors, which includes privately owned processing companies (e.g., H.P. Hood), vertically integrated farmer's cooperatives (e.g., DFA), and producer-handlers (independent farmers that also process a limited volume of milk), that sell to
- (3) downstream retailers, that finally sell to
- (4) end consumers.

Farmer cooperatives that process conventional fluid milk may still sell some of their milk to other processors and may process milk from independent farmers or cooperatives as long as that milk does not make up more than half of their processing volume.¹³⁸

Previous antitrust cases have split the product market for fluid milk into separate product markets for school milk contracts and the general consumer milk market.¹³⁹ In the late 1980s,

¹³⁵ 7 U.S.C. § 291 (2022).

¹³⁶ David Volkin, *Understanding Capper-Volstead*, U.S. Department of Agriculture, Rural Business and Cooperative Development Service, Cooperative Information Report 35, at 3 (1985), <https://www.rd.usda.gov/files/cir35.pdf> (last visited Feb. 21, 2022). This article also provides a thorough history of the Capper-Volstead Act and its interaction with antitrust litigation.

¹³⁷ Donald A. Frederick, *Antitrust Status of Farmer Cooperatives: The Story of the Capper-Volstead Act*, U.S. Department of Agriculture, Rural Business and Cooperative Development Service, Cooperative Information Report 59 (2002), <https://www.rd.usda.gov/files/CIR59.pdf> (last visited Feb. 21, 2022); *and see* Statement of Interest on Behalf of the United States (Docket No. 285), *Sitts v. Dairy Farmers of Am., Inc.*, 276 F. Supp. 3d 195 (D. Vt. 2017).

¹³⁸ 7 U.S.C. § 291 (2022).

¹³⁹ *See United States v. Dairy Farmers of Am., Inc.*, 426 F.3d 850, 852 (6th Cir. 2005).

Florida investigators uncovered a school milk bid-rigging scandal that spread across the state line into Georgia.¹⁴⁰ The DOJ and state Attorneys General filed criminal complaints. By the time those investigations concluded, about 100 convictions and guilty pleas were gained in about two dozen states. At that point, the history of bids for local school milk contracts became the crucial measure of competition among fluid milk processors by the Antitrust Division of the Department of Justice. In the years since, anticompetitive behavior in the dairy industry has taken on additional forms, including monopolization and anticompetitive mergers, so the market for conventional fluid milk (as separate from the market for school milk contracts) has received increasing attention.

Since milk is perishable, market definitions must have a sharply limited geographic scope. Only three suppliers of farm milk – two from Massachusetts and one from New York – currently ship out-of-state milk into Connecticut.¹⁴¹ Because of this reality, at least one previous DOJ dairy antitrust case defined the appropriate geographic market as individual metropolitan areas with a 100 mile radius.¹⁴² While cases will be able to define a larger number of narrow geographic markets, this Article defines the Northeast dairy market as New England, New Jersey, New York City and Long Island, plus the counties lining both sides of the Hudson River Valley up to north of Albany. This region tracks the areas from which most conventional fluid milk is shipped to the New England states and also to which milk from the New England states is shipped.¹⁴³ According to data from 2019, this geographic region includes over 38 million people.¹⁴⁴

Growing Concentration and Anti-Competitive Acts

Since the late 1990s, DFA's rise to dominance in the Northeast evolved from the eventual combination of DFA, Suiza Foods, and Dean Foods, some anti-competitive agreements with competitors, and DFA's abuse of market power to coerce competing farmers and cooperatives.

DFA's predecessor cooperative, Mid-American Dairymen, did not have any conventional fluid milk processing capacity in the Northeast as of 1996.¹⁴⁵ But the cooperative had already

¹⁴⁰ See Peter Schmidt, *Bid Rigging Among School Suppliers is 'Pervasive,' Experts Fear*, EdWeek (Sep. 22, 1993), <https://www.edweek.org/education/bid-rigging-among-school-suppliers-is-pervasive-experts-fear/1993/09> (last visited Feb. 21, 2022); *Morton's Mkt., Inc. v. Gustafson's Dairy, Inc.*, 198 F.3d 823, 826 (11th Cir. 1999).

¹⁴¹ These are Agri Mark's Andover, MA plant, West Lynn Creamery's Lynn, MA bulk tank unit, and DFA's Syracuse, NY plant. See January 2022 – Interstate Milk Shippers List, FDA (2022), <https://www.fda.gov/food/federalstate-food-programs/interstate-milk-shippers-list> (last visited Feb. 16, 2022).

¹⁴² *U.S. v. Country Lakes Foods, Inc.*, 754 F. Supp. 669 (D. Minn. 1990).

¹⁴³ There may be more competition from conventional fluid milk processors in Pennsylvania or upstate New York farmers at the edges of this geographic area, but the vast majority of milk for each portion of this market is

¹⁴⁴ County Population Totals: 2010-2019, U.S. Census Bureau (2019), <https://www2.census.gov/programs-surveys/popest/datasets/2010-2019/counties/totals/> (last visited Feb. 16, 2020).

¹⁴⁵ See Interstate Milk Shippers List: Connecticut, FDA (July 23, 1996), <https://web.archive.org/web/19961120064222/http://vm.cfsan.fda.gov/~ear/milk-ct.html>; Interstate Milk Shippers List: Maine, FDA (July 23, 1996), <https://web.archive.org/web/19961120064408/http://vm.cfsan.fda.gov/~ear/milk-me.html>; Interstate Milk Shippers List: Massachusetts, FDA (July 23, 1996), <https://web.archive.org/web/19961120064427/http://vm.cfsan.fda.gov/~ear/milk-ma.html>; Interstate Milk Shippers

entered a Consent Decree that prohibited it – and its successors – from forcing independent dairy farmers selling milk to a fluid processor acquired by the co-op to join the co-op for a period of one year following acquisition.¹⁴⁶ However, as time passed, DFA violated that Consent Decree provision and DOJ antitrust regulators failed to take action.

In the late 1990s, DFA entered into GTL, a joint venture with Suiza Foods.^c DFA and GTL subsequently swept up many of the remaining independent New England fluid milk processors: Cumberland Farms, Garelick Farms, West Lynn Creamery, New England Dairies, Nature’s Best, Grant’s Dairy, and Fairdale Farms. At the same time, “Guida Dairy . . . lodged a complaint [with] the Attorney General’s office in the state of Connecticut . . . that Suiza Foods entered into an exclusive agreement with a major supermarket chain to exclude competitor’s milk, i.e., Guida Dairy milk, from its shelves.”¹⁴⁷ DFA later acquired Guida-Siebert Dairy in Connecticut and Oakhurst Dairy in Maine.¹⁴⁸

In February 2000, Massachusetts Agriculture Commissioner Jonathan Healy warned in a letter to the Northeast Dairy Commission that one firm – GTL – controlled 80% of the fluid milk processing capacity in the Commonwealth. GTL was a joint venture owned by Suiza Foods and Dairy Farmers of America. As noted previously, in the late 1990s and early 2000s, those firms aggressively acquired fluid milk plants in the region. Healy wrote:

I am writing to express serious concern with Suiza Food Corporation’s consolidating activities regarding various fluid milk processing facilities in the Northeast. Suiza Foods has maintained an aggressive program to acquire fluid processing capacity and to shut down capacity in Massachusetts. Suiza’s activities tend to lessen competition and appear to be attempts to monopolize. That is a serious situation for the 6 million Massachusetts consumers and the farmers that supply milk to processing plants.

Suiza Foods’ consolidation efforts raise the specter of its obtaining sufficient market share to influence the price of milk purchased from dairy farmers producing the milk and the price of retail fluid milk products to consumers. As a result of these ongoing acquisitions, the number of major milk processing enterprises in Massachusetts dwindled from five firms to three firms: Suiza Foods,

List: New Hampshire, FDA (July 23, 1996),
<https://web.archive.org/web/19961120064532/http://vm.cfsan.fda.gov/~ear/milk-nh.html>; Interstate Milk Shippers
 List: New Jersey, FDA (July 23, 1996),
<https://web.archive.org/web/19961120064539/http://vm.cfsan.fda.gov/~ear/milk-nj.html>; Interstate Milk Shippers
 List: New York, FDA (July 23, 1996),
<https://web.archive.org/web/19961120064559/http://vm.cfsan.fda.gov/~ear/milk-ny.html>; Interstate Milk Shippers
 List: Rhode Island, FDA (July 23, 1996),
<https://web.archive.org/web/19961120064701/http://vm.cfsan.fda.gov/~ear/milk-ri.html>; Interstate Milk Shippers
 List: Vermont, FDA (July 23, 1996),
<https://web.archive.org/web/19961120064754/http://vm.cfsan.fda.gov/~ear/milk-vt.html>.

¹⁴⁶ State v. Mid-Am. Dairymen, Inc., 1997 WL 669970, at *1 (Tex. Dist. Sept. 3, 1997).

¹⁴⁷ Healy, *supra* note 130.

¹⁴⁸ Healy, *supra* note 130.

Stop & Shop, Inc. and H.P. Hood, Inc. I suggest that this is a further deterioration of competitive market conditions.

“Prior to the . . . consolidation, the five major milk processors accounted for 80% of the milk processing capacity” for the Massachusetts market.¹⁴⁹ At the time Commissioner Healy wrote that letter, Suiza was attempting to purchase another of the three remaining fluid milk processors based in Massachusetts: Stop & Shop’s plant at Readville.¹⁵⁰ The New England states all challenged the Stop & Shop-Suiza merger, and negotiated a Consent Decree that banned Stop & Shop from selling the plant to Suiza.¹⁵¹ But that Consent Decree did not benefit the market since Suiza and Stop & Shop instead entered an exclusive dealing agreement for \$50 million and Stop & Shop shut down the plant as part of that deal.¹⁵²

This Stop & Shop plant closing directly harmed the St. Albans Cooperative Creamery, then the largest dairy cooperative in Vermont and predominant supplier of raw milk to Stop & Shop.¹⁵³ And meanwhile, H.P. Hood (a leading regional competitor, despite being partially supplied with raw milk by DFA) shifted its processing plants in the Northeast to focus on more specialized products, like shelf stable milk or frozen novelties.¹⁵⁴

A subsequent study by University of Connecticut economists noted that “[a]s a result of Suiza’s plant closings [that followed the late 1990s buying spree], by 2000 there was dramatically less processing capacity in New England and little excess capacity outside of the Suiza plant system.”¹⁵⁵ Guida-Seibert Dairy expanded in response to this decrease in capacity, but was eventually purchased by the largest firm in the market.¹⁵⁶

In September 2000, DFA’s then CEO/President bragged in an audio tape that was distributed within the co-op that Suiza and DFA had a deal to force independent farmers selling milk to Garelick Farms – then the largest fluid milk processor in New England – to join DFA. But in that audiotape, DFA’s top executive warned that at that time, there was too much scrutiny from antitrust officials.¹⁵⁷

Around this same time, commentators noticed a concerning lack of competition for school milk contracts even though there were still a number of large firms supposedly competing in other

¹⁴⁹ Healy, *supra* note 130.

¹⁵⁰ Kirk Kardashian, *Milk Money: Cash, Cows, and the Death of the American Dairy Farm*, UPNE, at 199 (2012).

¹⁵¹ *Connecticut v. Suiza Foods Corp.* (D. Conn. 6/25/2001).

¹⁵² Kirk Kardashian, *Milk Money: Cash, Cows, and the Death of the American Dairy Farm*, UPNE, at 199 (2012).

¹⁵³ *Id.*

¹⁵⁴ See Welcome to HP Hood, <http://hphoodmanufacturing.com/> (last visited Feb. 16, 2022).

¹⁵⁵ Ronald W. Cotterill, Adam N. Rabinowitz, and Li Tian, *Milk Market Channel Structure: Its Impact on Farmers and Consumers, and the Inadequacies of Antitrust Enforcement as a Foundation for Dairy Policies: Evidence from the Northeast Dairy Industry, Testimony on Monopsony Issues in Agriculture: Buying Power of Processors in Our Nation’s Agricultural Markets Judiciary Committee, United States Senate*, Food Marketing Policy Center Department of Agricultural and Resource Economics University of Connecticut Storrs, at 11 (2003).

¹⁵⁶ *Id.*, at n. 11; see *infra* n. 171 and related discussion.

¹⁵⁷ Pete Hardin, *Hanman Explains Antitrust Ills, Cheese Manipulations*, *The Milkweed* (December 2000).

parts of the conventional fluid milk market.¹⁵⁸ This lack of competition meant that Suiza Foods and its successor, Dean Foods, often obtained school milk contracts without a single competing bid.¹⁵⁹

Since the prescient warning by Massachusetts' agriculture commissioner in early 2000, the fluid milk processing industry has further consolidated in New England and across major portions of the Northeast. In December 2001, Suiza Foods acquired Dean Foods – a marriage of the nation's two largest fluid milk processors – in a transaction sanctioned by the Antitrust Division of the United States Department of Justice.¹⁶⁰ That combined firm operated as the “new” Dean Foods until its bankruptcy in November 2019.¹⁶¹ The DOJ's Antitrust Division “challenged the proposed merger in 22 metropolitan areas in which [it] concluded that the merger would be likely to result in unilateral prices increases. The merged firm's combined market shares in these markets ranged from 43 percent to 100 percent, with post-merger HHIs ranging from 2,058 to 10,000.”¹⁶² In that investigation, the DOJ concluded that “[d]airies owned by grocery stores were not a significant constraint on the pricing of Suiza and Dean.”¹⁶³ The Justice Department ultimately approved the Dean Foods-Suiza merger, but only after some plants were divested.¹⁶⁴ As part of the federal Antitrust Division's approval of the Suiza Foods/Dean Foods marriage, the GTL joint venture with DFA was broken up.¹⁶⁵

In 2002, DFA and its joint venture, National Dairy Holdings (NDH), attempted to merge with H.P. Hood and, following a legal challenge, instead acquired a financial stake in the company.¹⁶⁶ This deal exemplifies the elaborate connections between DFA and other milk processors that potentially limit competition in the industry.

¹⁵⁸ See Hardin *supra* note 131.

¹⁵⁹ *Id.*

¹⁶⁰ William Kolasky, Deputy Assistant Attorney General, U.S. Dep't of Just., Antitrust Div., Mergers & Acquisitions: Getting Your Deal Through in the New Antitrust Climate, co-sponsored by the American Bar Association Section of Antitrust Law and The Association of the Bar of the City of New York: Sound Economics and Hard Evidence: The Touchstones of Sound Merger Review (June 14, 2002).

¹⁶¹ *Dean Foods Company Receives Court Approval of “First Day” Motions to Support Normal Business Operations*, Dean Foods (Nov. 14, 2019), <https://www.deanfoods.com/newsroom/news/dean-foods-company-receives-court-approval-of-first-day-motions-to-support-normal-business-operations/> (last visited Feb. 6, 2022).

¹⁶² William Kolasky, Deputy Assistant Attorney General, U.S. Dep't of Just., Antitrust Div., Mergers & Acquisitions: Getting Your Deal Through in the New Antitrust Climate, co-sponsored by the American Bar Association Section of Antitrust Law and The Association of the Bar of the City of New York: Sound Economics and Hard Evidence: The Touchstones of Sound Merger Review (June 14, 2002).

¹⁶³ William Kolasky, Deputy Assistant Attorney General, U.S. Dep't of Just., Antitrust Div., Mergers & Acquisitions: Getting Your Deal Through in the New Antitrust Climate, co-sponsored by the American Bar Association Section of Antitrust Law and The Association of the Bar of the City of New York: Sound Economics and Hard Evidence: The Touchstones of Sound Merger Review (June 14, 2002).

¹⁶⁴ Final Judgment, *United States and Plaintiff States v. Dean Foods Co.*, 2011 WL 11544329 (July 29, 2011).

¹⁶⁵ *Id.*

¹⁶⁶ *Hood, national dairy company abandon merger plan*, MyPlainView (May 12, 2003), <https://www.myplainview.com/news/article/Hood-national-dairy-company-abandon-merger-plan-9065987.php> (last visited Feb. 21, 2022).

In 2007, a civil antitrust action in the Southeast was filed against DFA, Dean Foods, and other defendants, on behalf of dairy farmers in that region.¹⁶⁷ Allegations were that DFA and Dean Foods had conspired to restrict producers' access to milk plants, and that those producers had been underpaid for their milk.¹⁶⁸ Defendants DFA and Dean Foods ultimately separately settled separately with plaintiffs' attorneys for \$140 million each.¹⁶⁹ Civil class actions alleging similar anticompetitive actions by DFA and Dean Foods were subsequently filed and settled in the Northeast.¹⁷⁰

By 2012, DFA bought Guida's Dairy, the processor that expanded in response to the original decrease in competition and which, by that point, was Connecticut's largest fluid milk processor.¹⁷¹ In 2014, DFA purchased Oakhurst Dairy, one of only two major milk processors remaining in Maine.¹⁷²

In January 19, 2017, DFA's joint venture partner, Dairy Marketing Services, LLC, mailed a letter to over 900 non-DFA farmers whose milk the cooperative marketed in the Northeast.¹⁷³ That letter demanded that those producers join DFA by April 1, 2017, or lose their markets.¹⁷⁴ At that time, there were virtually no alternate milk markets available in the Northeast.¹⁷⁵

Facing pressure from DFA, in 2019, St. Alban's Creamery, the cooperative that was harmed by Stop & Shop's exclusive dealing agreement with Suiza, "voted to successfully merge with its long-time partner, Dairy Farmers of America (DFA)."¹⁷⁶

In June 2019, the DOJ's Antitrust Division finally took action on DFA's legal constraints. All of the binding Consent Decrees that DFA had inherited from its predecessor cooperatives were expunged, thus erasing all prior legal constraints upon DFA.¹⁷⁷

¹⁶⁷ *In re Se. Milk Antitrust Litig.*, 555 F. Supp. 2d 934 (E.D. Tenn. 2008).

¹⁶⁸ *Id.*

¹⁶⁹ *Id.*

¹⁷⁰ *Allen v. Dairy Farmers of Am., Inc.*, 748 F. Supp. 2d 323 (D. Vt. 2010); *Sitts v. Dairy Farmers of Am., Inc.*, 276 F. Supp. 3d 195 (D. Vt. 2017).

¹⁷¹ *About Guida's Dairy*, <https://guidas.com/about/> (last visited Feb. 6, 2022) ("In early 2012, we became part of Dairy Farmers of America (DFA)"). The complaint in *Allen*, *supra* note 133 provides a more detailed summary of the market until about this period.

¹⁷² *Oakhurst Acquired By A Farmer Owned Cooperative. Company To Remain In Maine And Operate Independently*, Oakhurst Dairy (January 31, 2014), https://www.oakhurstdairy.com/press_release/oakhurst-acquired-by-a-farmer-owned-cooperative-company-to-remain-in-maine-and-operate-independent/ (last visited Feb. 6, 2022).

¹⁷³ Pete Hardin, *Key Language from the January 19, 2017 DMS Letter to Independent Producers*, The Milkweed (Feb. 2017).

¹⁷⁴ Pete Hardin, *Key Language from the January 19, 2017 DMS Letter to Independent Producers*, The Milkweed (Feb. 2017).

¹⁷⁵ Pete Hardin, *Key Language from the January 19, 2017 DMS Letter to Independent Producers*, The Milkweed (Feb. 2017).

¹⁷⁶ St. Alban's Creamery & Supply, <https://www.stalbanscooperative.com/> (last visited Feb. 22, 2022).

¹⁷⁷ Pete Hardin, *Six Co-ops Claim Dean Foods Bankruptcy Process Is Unfair, Seek a Delay*, The Milkweed (March 2020).

Dean Foods, suffering from debt acquired in part from its pre-Great Recession stockholder bonuses, filed for Chapter 11 bankruptcy in November 2019.¹⁷⁸ In May 2020, DFA, Dean Foods' predominant raw milk supplier, took over about 90% of all the bankrupt company's milk plants in the United States – including all such assets in New England and the Northeast.¹⁷⁹ The Dean Foods bankruptcy process was troubling. Other parties interested in bidding on some of Dean Foods' facilities formally complained that they had been denied access to critical financial information by the firm appointed by the bankruptcy court.¹⁸⁰

A Consent Decree engineered by federal and Commonwealth antitrust officials required DFA to sell off Garelick Farms' plant at Franklin, Massachusetts.¹⁸¹ That sale never happened due to a lack of potential buyers, and the government permitted DFA to keep the plant.¹⁸²

And most recently, in the first quarter of 2022, the last remaining fluid milk plant in New Jersey that was not owned by DFA, Readington Farms, ceased operations.¹⁸³ DFA milk plants assumed that volume, which is distributed to about 350 supermarkets in the region.¹⁸⁴

No fluid milk processors remain in New York City or Long Island, and most of the other fluid milk processors in the region are small firms that cannot actually compete for large contracts.¹⁸⁵ Indeed, the Boston Public School system has awarded DFA-owned Garelick Farms exclusive school milk contracts since at least 2014 in large part because no competitors were able to submit complete bids for several of those years.¹⁸⁶

So after starting out at around 80% market share for the top five milk processors around 2000 (as estimated by the Massachusetts agriculture commissioner's letter), DFA eventually

¹⁷⁸ *Dean Foods Company Receives Court Approval of "First Day" Motions to Support Normal Business Operations*, Dean Foods (Nov. 14, 2019), <https://www.deanfoods.com/newsroom/news/dean-foods-company-receives-court-approval-of-first-day-motions-to-support-normal-business-operations/> (last visited Feb. 6, 2022).

¹⁷⁹ *Dean Foods Completes Sale of Assets to Dairy Farmers of America*, Dean Foods (May 1, 2020), <https://www.deanfoods.com/newsroom/news/dean-foods-completes-sale-of-assets-to-dairy-farmers-of-america/> (last visited Feb. 6, 2022).

¹⁸⁰ Pete Hardin, *Six Co-ops Claim Dean Foods Bankruptcy Process is Unfair, Seek a Delay*, *The Milkweed* (March 2020).

¹⁸¹ *United States v. Dairy Farmers of Am., Inc.*, 2020 WL 7066345, at *1 (N.D. Ill. Oct. 6, 2020).

¹⁸² *United States v. Dairy Farmers of Am., Inc.*, 2020 WL 8370839, at *1 (N.D. Ill. Dec. 17, 2020).

¹⁸³ Karen Bohnert, *The Nightmare Before Christmas: Plant Informs Hundreds of Producers it No Longer Will Buy Their Milk*, *Ag Web* (January 13, 2022), <https://www.agweb.com/news/livestock/dairy/nightmare-christmas-plant-informs-hundreds-producers-it-no-longer-will-buy> (last visited February 15, 2022).

¹⁸⁴ Pete Hardin, *MD?VA Co-op Poised to Add Producers Cut Loose by Readington Farms*, *The Milkweed* (February 2022).

¹⁸⁵ *See* January 2022 – Interstate Milk Shippers List, FDA (2022), <https://www.fda.gov/food/federalstate-food-programs/interstate-milk-shippers-list> (last visited Feb. 16, 2022).

¹⁸⁶ Letter from John P. McDonough, Interim Superintendent, Boston Public Schools, to Martin J. Walsh, Mayor of Boston (July 14, 2014) (on file with author); Letter from Tommy Chang, Superintendent, Boston Public Schools, to Martin J. Walsh, Mayor of Boston (August 30, 2017) (on file with author); Letter from Laura Perille, Interim Superintendent, Boston Public Schools, to Martin J. Walsh, Mayor of Boston (August 15, 2018) (on file with author); Letter from Laura Perille, Interim Superintendent, Boston Public Schools, to Martin J. Walsh, Mayor of Boston (May 3, 2019) (on file with author).

acquired the assets of each of the major remaining competitors in New England other than H.P. Hood. The tables below show DFA's expansion in the market and the decrease in the number of existing milk processors. However, while these tables do a decent job of showing DFA's expansion from no market share to a dominant player, the tables drastically undersell DFA's share of the milk processing by volume since DFA operates the largest plants in the region, but the exact volumes are not publicly disclosed and so the tables do not account for this feature.

**Medium-Large Northeast
Conventional Fluid Milk Processors**

	1996 Processors		2022 Processors	
	DFA	Other	DFA	Other
Connecticut	0 (0%)	4 (100%)	1 (25%)	3 (75%)
Maine	0 (0%)	3 (100%)	1 (50%)	1 (50%)
Massachusetts	0 (0%)	5 (100%)	1 (50%)	1 (50%)
New Hampshire	0 (0%)	2 (100%)	0 (0%)	3 (100%)
New Jersey	0 (0%)	3 (100%)	1 (100%)	0 (0%)
New York	0 (0%)	1 (100%)	1 (100%)	0 (0%)
Rhode Island	0 (NA)	0 (NA)	0 (0%)	1 (100%)
Vermont	0 (NA)	0 (NA)	0 (0%)	3 (100%)
Total	0 (0%)	18 (100%)	5 (29%)	12 (71%)

**All Northeast Conventional
Fluid Milk Processors**

	1996 Processors		2022 Processors	
	DFA	Other	DFA	Other
Connecticut	0 (0%)	8 (100%)	1 (17%)	5 (83%)
Maine	0 (0%)	5 (100%)	1 (20%)	4 (80%)
Massachusetts	0 (0%)	7 (100%)	1 (25%)	3 (75%)
New Hampshire	0 (0%)	6 (100%)	0 (0%)	6 (100%)
New Jersey	0 (0%)	5 (100%)	1 (100%)	0 (0%)
New York	0 (0%)	3 (100%)	1 (14%)	6 (86%)
Rhode Island	0 (0%)	2 (100%)	0 (0%)	3 (100%)
Vermont	0 (0%)	3 (100%)	0 (0%)	5 (100%)
Total	0 (0%)	39 (100%)	5 (14%)	32 (86%)

DFA's market power in fluid milk processing means that it is not only able to depress the prices it pays to farmers, but also to possibly increase prices it charges its buyers, which pass those costs on to consumers. As mentioned above, DFA employs this market power over a geographic

market containing 38 million people.¹⁸⁷ Those 38 million consumers' demand for conventional milk is dramatically captive to a single, vertically-integrated, farm-to-retailer colossus. Besides being the largest fluid milk processor in those areas of the Northeast, Dairy Farmers of America is the largest dairy farmers' cooperative in the Northeast.

Cleaning Up the Dairy Case: Restoring Balance in a Broken Market

As mentioned above, the primary goal of this paper is to suggest solutions to competitively rebalance the Northeast's dairy market. Many of these tasks can and should be adopted simultaneously.

Form a Multi-State, Regional Dairy Antitrust Task Force

This problem of concentration and anti-competitive behavior in the conventional fluid milk processing industry overlaps state borders. State Attorneys General offices for the New England states, New Jersey and New York should form a Dairy Industry Antitrust Task Force. The New England state AGs participated in this type of multi-state investigation in challenging the Stop & Shop-Suiza merger, and now simply need to come seeking stronger remedies.

This task force should conduct a forensic audit of the relationship between DFA and its subsidiaries and joint ventures.

Study the History of Farm-to-Retail Margins

At each step of the path from farm to retail, what are the margins? Exactly this type of analytical research was conducted years ago by Dr. Ronald Cotterill, now a Professor Emeritus at the University of Connecticut's Department of Agriculture and Resource Economics.¹⁸⁸ This example from Cotterill's analysis of Connecticut's farm-to-retail price margins during November 2006 can readily serve as a model for studying such regional data over several years. Cotterill noted that the Connecticut Attorney General's office assisted collecting that data.¹⁸⁹ As the graph of beef prices referenced above¹⁹⁰ shows, data on pricing and margins can be vital to identifying the true extent of damages caused by anticompetitive conduct.

Study the History of School Milk Contract Bidding Within the Region

Once upon a time, school milk contracts' bids were the quick check on competition among dairy processors. School milk contracts are most often bid annually, generally in the summer prior to the start of the school year. That historic data is publicly available, and reveals patterns among

¹⁸⁷ County Population Totals: 2010-2019, U.S. Census Bureau (2019), <https://www2.census.gov/programs-surveys/popest/datasets/2010-2019/counties/totals/> (last visited Feb. 16, 2020).

¹⁸⁸ Ronald Cotterill, et al., *Toward Reform of Fluid Milk Pricing in Southern New England: Farm Level, Wholesale and Retail Prices in the Fluid Milk Marketing Channel: 2003-2006, Report to the Connecticut Legislature Committee on the Environment* (2007).

¹⁸⁹ *Id.*

¹⁹⁰ *See supra* note 127.

bidders as well as the margins they bid. As referenced above, the authors obtained several years of school milk bid data from Boston Public Schools that show the dire lack of competition for even some of the most lucrative contracts in the region.¹⁹¹ School milk comprises about six to seven percent of total fluid milk sales and can be defined as a separate product market due to the processing volume needed to establish contracts with large school districts.

**Seek a Consent Decree Binding DFA's Raw Milk Sales,
Akin to the Agri-Mark/H.P. Hood Consent Decree of the Early 1980s**

In the early 1980s, Agri-Mark, the newly-formed and then-largest dairy cooperative in New England, attempted to purchase what was then the region's single-biggest fluid milk processor, H.P. Hood. Following widespread complaints from the region's competing fluid milk processors, the DOJ Antitrust Division intervened and forced a Consent Decree upon Agri-Mark, Agway (another co-op involved in the proposed Hood purchase), and H.P. Hood.¹⁹² That Consent Decree required Agri-Mark to sell farm milk to all other dairy processors on the same terms as Agri-Mark sold farm milk to H.P. Hood, Agri-Mark's in-house fluid processing business.¹⁹³ The 1981 Consent Decree provides an historic example of federal antitrust intervention in New England's milk industry.

There are compelling, relevant parallels between Agri-Mark-Hood from 40 years ago, and DFA's current control of farm milk and fluid milk processing in the Northeast. However, DFA's control of both regional farm milk supplies and milk processing capacity is far greater today than anything Agri-Mark-H.P. Hood held four decades ago. In the fluid milk industry, it's critical that fluid processors' raw milk costs are close. That's one fundamental purpose of USDA's federal milk order system: to equalize fluid milk processors' raw product costs. In the fluid milk business, contracts to supply retail, school, and institutional contracts may be won or lost on the basis of cents, even mills per unit.

If imposed upon DFA in the Northeast, a Consent Decree parallel to the Agri-Mark-Agway-H.P. Hood Consent Decree from the early 1980s would protect the interests of dairy farmers, consumers, the few competing milk cooperatives that remain, and the few competing fluid milk processors in the Northeast. If DFA were legally mandated by a Consent Decree throughout its Northeast operating region to offer farm milk to processors on the same basis as DFA sells milk to its own dairy processing plants, that would stabilize competition and serve the wide-ranging public interest.¹⁹⁴

¹⁹¹ See *supra* note 186 and related discussion.

¹⁹² *United States v. Agri-Mark, Inc.*, 1981 WL 2057, at *1 (D. Vt. Apr. 1, 1981).

¹⁹³ *Id.*

¹⁹⁴ The structure of this consent decree in some way mirrors the proposal, *infra*, to regulate conventional fluid milk processing as a utility.

Once an Investigation Confirms DFA's Misconduct, Break Up DFA Across and Within Regions

As described, DFA and its predecessors have a long history of anti-competitive conduct. This article cites only a handful of the antitrust cases that DFA or the milk processors it has acquired have been involved in over the past half-century. Even before its most recent string of antitrust cases, DFA was described as “a serial violator of . . . laws prohibiting anticompetitive activities.”¹⁹⁵ Several class actions have achieved hundreds of millions of dollars in settlements from DFA, for cases involving alleged denial of market access in the Northeast and Southeast, to manipulations of Cheddar prices at the Chicago Mercantile Exchange.¹⁹⁶

Pending the results of an investigation, federal antitrust regulators should seek a “Ma Bell Solution.”¹⁹⁷ Like the Bell System, DFA should be broken into its seven operating regions. Unlike the telephone lines required by the Baby Bells, milk processing plants can be run profitably even when there are multiple processors in a region, as evidenced by the approximately 15% market share of non-DFA processors in the Northeast and the larger non-DFA market share throughout the rest of the country. So, DFA should also be broken into competitors within each region to prevent the sort of dominance and market-splitting that constitutes much of DFA's misconduct over the past several decades. For example, divesting DFA's Florence, New Jersey plant would help make up for the recent loss of competition in New Jersey. Selling off DFA's Guida-Seibert milk processing plant in Connecticut could similarly improve competition in New England.

Further, as terms of that dissolution, the individual regions should be permitted no common directorships, no common management, no common financial obligations, and no common ownership of joint ventures or subsidiaries. To prevent future backroom deals from leading to strategic exit and acquisition of market share by the DFA progeny, a Consent Decree may also seek to limit the market share (under a pre-defined market definition) so that no one of the new firms can become dominant.

In USDA's Northeast Regional Milk Order, Terminate Class I Pooling Requirements

The federal milk order program is designed to assure consumers of an adequate supply of fresh and wholesome milk by regulating prices paid by processors and imposing rules upon firms marketing Grade A farm milk within a given region. In the Northeast region (federal order #1), firms procuring farm milk are required to sell a minimum of 10% of their raw milk per month to Class I (fluid) processors. This requirement may be accomplished either through direct sales, or by arranging for another party to cover an individual marketer's Class I requirements. However, with DFA controlling so great a percentage of Class I processing in the Northeast region,

¹⁹⁵ Second Amended Consolidated Class Action Complaint, at 72, In re: Dairy Farmers of America, Inc. Cheese Antitrust Litigation (No. 245) (class action alleging that DFA manipulated cheddar cheese futures on the Chicago stock exchange).

¹⁹⁶ In re Se. Milk Antitrust Litig., 555 F. Supp. 2d 934 (E.D. Tenn. 2008); Allen v. Dairy Farmers of Am., Inc., 748 F. Supp. 2d 323 (D. Vt. 2010); In re Dairy Farmers of Am., Inc., Cheese Antitrust Litig., 60 F. Supp. 3d 914, 920 (N.D. Ill. 2014); Sitts v. Dairy Farmers of Am., Inc., 276 F. Supp. 3d 195 (D. Vt. 2017).

¹⁹⁷ See United States v. American Tel. and Tel. Co., 552 F. Supp. 131 (D.D.C. 1983).

competing buyers of farm milk are often forced to deal with DFA to gain required access to the Class I market. In the Southeast and Northeast civil antitrust class actions, restricted access to Class I plants was a major issue. By eliminating Class I milk sales requirements in the Northeast, USDA would remove an administrative requirement that cements DFA's market power over competing handlers.

At the 100-Year Mark, Review Capper-Volstead

The federal Capper-Volstead Act was created in 1922, one hundred years ago. Capper-Volstead attempted to address a rural economic Depression brought about by the complete collapse of U.S. farm prices in late summer/early fall 1920 and provided agricultural cooperatives with limited exemptions from the federal antitrust laws as discussed above. However, agriculture and cooperatives have changed dramatically over 100 years and behemoths like DFA have come to dominate markets in ways not possible for standard firms. A thorough review of Capper-Volstead is likely to conclude that limiting cooperatives' antitrust exemptions only to the procurement, transportation, and marketing of raw agricultural products is sufficient to protect small-scale farmers from financial downturns while maintaining competitive marketplaces.

If All Else Fails, Regulate the Northeast Fluid Milk Industry as a Utility

The only scenario worse than this suggestion may be the status quo. It may be the case that barriers to entry from the start-up costs of setting up a plant and distribution network are too high and that there is not political or judicial will to break DFA up into competing units. If all else fails and regulators decide that it is either impossible or too costly to monitor and confront DFA's anti-competitive actions, then setting price or margin caps and floors and mandating that DFA accept milk from non-DFA members may be the only way to prevent DFA's abuse of market power from sinking the Northeast dairy market and imposing large externalities on the farmers and communities it leaves behind.

Conclusion

By progressively buying out rival milk processors and squeezing smaller cooperatives and independent farmers, DFA has come to dominate the milk processing market in the Northeast. DFA has paid out multiple settlements and divested some processors due to a string of antitrust litigation against it. But DFA has continued its march towards dominance over the region. After acquiring Dean Foods in 2020, DFA has nearly unfettered power to distort purchase prices and force the remaining independent farmers and cooperatives in the Northeast to go out of business or join the fold. Similarly, DFA could exercise its market power to raise prices for millions of households. Fortunately, regulators and private plaintiffs have been successful within the limited scope of their prior cases against DFA. This article has explained several remedies that might help achieve the broader ambition of rebalancing the Northeast milk market. Armed with these possibilities, state and federal regulators must do the work to investigate DFA and select appropriate legal remedies and constraints based on their findings.



Panel 2: Competition Issues

Mergers and Acquisitions in Food Retailing: Evidence of Impacts and Policy Implications

Richard Volpe, Xiaowei Cai, Benjamin Scharadin & Alexander Stevens

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Introduction

The food supply chain in the U.S. has been transformed by consolidation over the past several decades. Mergers and acquisitions (MA) have long been commonplace throughout the various segments and sectors of agribusiness. Shields (2010) summarized Census data and showed that the average four-firm concentration ratio (CR4) for nine major food manufacturing industries increased from 31.7 in 1972 to 48.7 in 2002. The food retail industry, in particular, has undergone multiple prolonged and, in some cases, highly publicized waves of consolidation. The estimated CR4 in US retail food sales nearly tripled over less than 30 years, increasing from 13.9 in 1990 to 35.8 in 2019 (USDA-ERS, 2021). Local market concentration, however, is typically much higher. Rahkovsky and Volpe (2017) estimated that the average CR4 across metropolitan areas in the U.S. was 67. This value is likely even higher for markets measured correctly for more granular geographic areas, such as those based on Census tracts or population centroids.

The wave of MA activity and increased consolidation is showing no signs of slowing down. According to the Food Institute, which tracks MA activity at all stages of transactions, there were 88 MA events in US food retail in 2018 alone, with an average value of \$530 million. This represented an uptick of 13% from 2017. Since 2013, some of the major MA events have included the Kroger acquisition of Harris Teeter, Amazon's purchase of Whole Foods, Ahold-Delhaize's move into omnichannel space with the purchase of FreshDirect, and Raley's acquisition of Basha's.

The economic impacts of MA activity for the food retail industry are not well understood, despite the magnitude and frequency of events and the size and importance of the sector. The reasons for this are two-fold. The first reason, and the more nuanced of the two, is that the bulk of the relevant research has focused on the price-concentration relationship. In line with theory, nearly all empirical papers on the topic have found a positive association between firm size or market concentration and food prices (Lamm, 1981; Cotterill, 1986; Connor and Peterson, 1992; Yu and Connor, 2002; Cai et al., 2010&2011; Cai and Stiegert, 2013; Adjemian et al., 2016). This finding is in line with the standard industrial organization theory and the application of

market power, which is one of the most common concerns regarding consolidation and market concentration, particularly in the food supply chain (Sexton and Xia, 2018).

However, food retail market concentration and specifically MA activity have significant implications and impacts beyond consumer prices. The findings presented and discussed herein pertain largely to price impacts, but then we also discuss the importance of improved regulatory oversight for MA activity and the other mechanisms by which economic impacts can occur in the wake of these events. One prominent example is employment and wages (Green and Cromley, 1982; Amess et al., 2008; Conyon, et al., 2002; Conyon, et al., 2004; Majumdar et al., 2010), for which research has yielded diverse and inconsistent findings, which may be due to differences across industries. The research team is not aware of any studies on the labor impacts of MA activity in the food retail industry specifically.

Research is also called for the upstream impacts of retail market concentration on the specialty crops production sector, for which retail is the largest marketing channel by a wide margin (Lin, 2020). Market concentration and firm size lead to buying power as well as selling power, which is control over prices paid to vendors. The power balance between retailers and produce suppliers has been shown to be highly asymmetric largely due to disparities in firm size (McCluskey and O'Rourke, 2000; Hingley, 2005). Moreover, research has already demonstrated a connection between retail pricing behavior and producer welfare (Li and Sexton, 2013). To our knowledge, no empirical studies have examined the impacts of retail concentration or MA activity on labor issues in the production sector.

Changes in market structure via MA activity may also have implications for food access and food assistance benefit redemption in the U.S. A number of questions in this respect are in need of exploration using large datasets featuring spatial variation. Blanchard and Matthews (2007) studied rural food deserts and demonstrated that they largely exhibited high degrees of market concentration. Cai et al. (2018) showed that fruit and vegetable purchases shared an inverse relationship with market concentration, and that this effect is most pronounced in rural markets. Volpe et al. (2020) also found the negative association between food retail market concentration and produce consumption which provides additional evidence demonstrating that in markets with few to no large retailers, fresh produce is harder to find and more expensive. Concentration increases, often substantially, in the wake of MA activity (Aaronovitch and Sawyer, 1975; Brock, 2011). Therefore, particularly in rural areas, MA activity has the potential to adversely affect food access, particularly if overall store count is reduced.

The Supplemental Nutrition Assistance Program (SNAP) and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) are two of the three largest food assistance programs in the U.S. They play important roles in providing food as well as nutrition education to low-income households and the food retail sector is the primary mechanism by which program benefits are redeemed. Over 82% of SNAP benefits are redeemed at supermarkets and supercenters (CBPP, 2019), and about 90% of WIC benefits are redeemed at food retailers, as opposed to pharmacies, WIC-dedicated vendors, and other outlets (Tiehen and Frazao, 2016). The market structure of the local food retail environment has important associations with SNAP benefit redemption. Most salient for our purposes is the finding that access to large retailers is

positively and significantly associated with benefit redemption (Rosenheim, 2015; Schwartz et al., 2018). Thus, changes in store counts or formats, as well as food prices, all of which may result from MA activity, could affect SNAP benefit redemption. WIC, contrary to SNAP, is not an entitlement program, and the availability of program benefits depends on program costs. WIC food costs, which are determined by retail food prices, are associated with store size and market concentration (Saitone et al., 2015; McLaughlin et al., 2021). Therefore, retail MA activity may affect both WIC benefit availability and redemption.

Independently owned and operated supermarkets constitute a largely overlooked component of the food retail industry, particularly with respect to MA activity and changes in market structure. Independent supermarkets employ nearly one million people in the U.S. and generate over \$131 billion annually in sales (NGA, 2021). Independent supermarkets provide food access in many rural areas where chain stores are not located (Cho and Volpe, 2017). Moreover, independent grocers have historically driven much of the innovation in the retail sector, with respect to store formats, private labels, and technology use (Spellman, 2017). Increased market concentration has been shown to adversely affect independent supermarket performance (Volpe and Cho, 2019), suggesting there is reason to believe that MA activity may affect the profitability and entry or exit rates of independent stores. Additionally, Cho and Volpe (2017) noted a decline in the share of independent supermarkets between 2005 and 2015 throughout much of the U.S., but it is not known to what extent this is due to exit or conversion to chain grocers via acquisitions. Finally, Cakir et al. (2020) found that independent grocery retailer exits were associated with higher market concentration, recent entry of a large chain, higher poverty rates, and lower median income in rural markets. Whole Foods is an example of a chain supermarket whose expansion strategy is rooted in acquiring smaller, independent supermarkets with appealing characteristics (Whole Foods, 2021).

The second reason why research on supermarket MA activity is broadly important pertains to the age of the extant studies, cited above, on concentration and related structural issues in food retailing. The food retail sector has changed considerably since the influential price-concentration studies were conducted, and now features many diversified formats competing for grocery dollars. According to Supermarket News (2019), the dollar share of traditional grocery stores fell from 90% in 1988 to 44% in 2018. Supercenters, club stores, warehouse supermarkets, limited assortment stores, and even dollar stores, convenience stores and drug stores have all made major inroads in the food retail industry, and this motivates a careful reexamination of the very nature of concentration and competition in this industry.

Our goal is to investigate the economic impacts of MA activity in the food retail sector. We seek to update and expand the body of knowledge on these impacts, in order to better inform policymakers as well as industry practitioners. In this paper, we discuss findings with respect to price impacts resulting from a large merger that took place in the US food retail sector.¹⁹⁸ We find that the merger resulted in significantly higher prices for stores involved in the merger but

¹⁹⁸ We are unable to reveal the names of the firms involved in the merger, nor the year in which the merger took place, due to the terms of the third party agreement that grants the research team access to the data used in the study.

had no discernible impact on stores competing with these firms before or after the merger. We discuss possible explanations for our findings and policy implications.

Evidence of Economic Impacts

The merger at the center of this study affected multiple US states. We used the USDA Food Access Research Atlas, which includes over 60 measures of food access by Census tract in the U.S. We aggregated these measures up to the county level for two editions of the dataset to measure food access pre- and post-merger. We then measured the percent change in food access between two periods of time that capture the merger, and combined this with the per capita store counts, by county, of supermarkets involved in the merger. Table 1 reports selected correlations between the county level store counts of supermarkets identified in the Nielsen TDLinX data as having been involved in the merger with the percent change in food access measures prior to and after the merger.

Table 1. Selected Correlations between County-Level Merger Store Counts and Changes in Food Access Measurements

	Positive Correlations	Negative Correlations
Share of Hispanic HHs with Low Access at 10 Miles	0.13	
Share of Low-Income HHs with Low Access at 20 Miles	0.13	
Share of Population with Low Access at 20 Miles	0.12	
Share of Low-Income HHs with Low Access at 10 Miles	0.11	
Share of HHs with Children and Low Access at 20 Miles	0.10	
Share of HHs with Children and Low Access at 10 Miles		-0.09
Share of HHs with Seniors and Low Access at 10 Miles		-0.13

Note: Each reported correlation is between the total number of supermarkets involved in the merger of interest and the percent change in the reported food access metric, according to the USDA Food Access Research Atlas.

While we cannot establish causality, the statistics in table 1 suggest a weak association between merger activity and decreases in food access. This is consistent with the body of literature reviewed above linking market concentration to food insecurity and may be the results of store closures in the wake of the merger. To be sure, more research is needed on this topic and these findings are preliminary, but we revisit potential food access implications in our policy recommendations and concluding remarks.

Food Price Impacts

We measure food prices and, in turn, price changes among stores, by calculating the cost of a Thrifty Food Plan (TFP) market basket. The TFP is used to calculate maximum benefits for the SNAP and is calculated such that food expenditure is allocated to minimize cost, while meeting the USDA Dietary Guidelines for Americans (DGA) (Carlson et al., 2007). This approach addresses the two limitations above by considering the prices of all goods in a given market and weighting the price index by TFP suggested allocations rather than consumer shares. This allows us to track the price of a consistent basket of goods across time and making our price measure

immune to consumers substituting to cheaper, potentially lower quality goods. Multiple food retail environment studies addressing food price changes and the affordability of a healthy diet have utilized the TFP basket as their price measurement (Christensen and Bronchetti, 2020; Crocket et al., 1992).

In addition to the methodological advantage of the TFP basket price measure, there are multiple application advantages as well. The affordability of healthy food in low access areas (Hendrickson et al., 2006; Fan et al., 2018) and whether SNAP benefit amounts are set at an appropriate level (Christensen and Bronchetti, 2020; Valizadeh et al., 2020) are widely debated topical issues. Constructing our price measurement as a TFP basket price measure not only allows our work to inform the MA literature and policy, but also inform food assistance literature and federal food assistance policy. Furthermore, because the TFP is constructed with respect to the USDA DGA, we can understand how the price of particular TFP groups that are suggested for increased consumption, e.g. dark green vegetables or plant and seafood proteins, or TFP groups that are suggested for decreased consumption, e.g. sugars, sweets, and candies, are impacted by MA.

Following a similar approach to Gunderson et al. (2016), we calculate the cost of both a TFP basket and a “low-cost” TFP basket. The TFP basket price uses all available products at a store in a given week in the calculation, whereas the “low-cost” TFP basket price only considers products in the lowest decile of price. We make this distinction because low-income households tend to purchase cheaper goods. Including all goods may inflate the realized price of the TFP basket. Therefore, we calculate the weekly TFP basket price for a given store as follows.

$$TFPprice_{jk} = \sum_{i=1}^{58} Price_{ijk} * TFPquantity_i$$

where $TFPquantity_i$ represents the suggested consumption in pounds of TFP group i and $Price_{ijk}$ represents the median price-per-pound in TFP group i at store j in week k . This median price is calculated using all items in the TFP group i at store j in week k for the TFP basket price and using items in the first decile of items in TFP group i at store j in week k for the “low-cost” TFP basket price.

We use the IRI point-of-sale data to calculate the TFP basket prices. Muth et al. (2016) provide a detailed description of the dataset, which includes weekly sales data by universal product code (UPC). Levin et al. (2018) find that the IRI point-of-sale data have comparable sales data to other scanner datasets. Therefore, they can be used to accurately estimate TFP basket prices similar to the methodology used by Gunderson et al. (2016). The IRI point-of-sale data have been used to investigate how nutrition information impacts food choice (Melo et al., 2019), how market share differs by market attributes, as well as other topics.

To identify the price impacts of the merger, we use a difference-in-difference approach (DID). Using data for a 5-year period, we employ two specifications. In one, we treat the three years leading up to the merger as the “prior” period and the two years including and following it as the “post” period. In the other, we treat the first three years as “prior”, separate the fourth year as a

merger time period and treat the final year as “post.” This is because the merger was finalized in late in the third year of our data and implemented throughout the fourth year. All stores in the data are organized into three groups for the purpose of our identification strategy. Group 1 consists of those stores involved in the merger. Group 2, also known as the “competing” stores, are those located within three miles of any group 1 stores in urban markets and within nine miles in rural markets. Finally group 3 are the “comparison” stores, and they are all other stores, which are deemed to be noncompeting with the merger stores.

An important consideration in using the IRI store scanner data is that not all firms report their prices and quantities in the same manner. Participating firms are categorized by those reporting store-level data and those reporting averages for retail market areas (RMAs). Given that RMA data do not vary by store within retailer-defined geographic areas, this has the potential to introduce measurement error in our results. Therefore, we report both RMA and non-RMA results. Table 2 includes our results.

Table 2: Selected Estimated Difference-in-Difference Regression Coefficients

Sample	Basket Price	Prior	Post	Group 2 * Post	Group 3*Post
Full	TFP		-10.78***	34.01***	36.41***
Full	TFP	-7.05**	-15.46***	31.55***	30.59***
Non-RMA	TFP		17.12***	-5.86***	-4.54*
Non-RMA	TFP	-7.23***	12.30***	-10.34***	-11.28***
Full	Low-Cost		-3.50***	20.20***	18.25***
Full	Low-Cost	-0.72	-3.97***	14.29***	9.81***
Non-RMA	Low-Cost		10.45***	3.53***	2.89***
Non-RMA	Low-Cost	-4.65***	7.35***	0.68	-1.57

***: Coefficient is significant at the 0.01 level. **: At the 0.05 level. *: At the 0.10 level.

The key results of interest are reported in the column labeled “Post,” as these are the estimated price changes in those stores directly involved in the merger. The estimated coefficients are statistically significant but mixed in sign. Taking average basket prices in the year the merger was completed, the estimated coefficients can be converted to percentages. For the TFP baskets, the price impacts range from -3.5% to 4%. For the low-cost baskets, the estimated impacts range from -1.6% to 4.8%.

The full sample shows negative impacts, while the non-RMA sample shows positive impacts. Given the potential introduction of measurement error in the RMA data, we prefer results using the non-RMA data. However, we report both because one merger firm reports RMA data and the other reports store level data. One interpretation of the results is that the full sample results are subject to measurement error and therefore should be discounted. An alternative interpretation is that the full sample results reflect the price changes at one chain in the merger,

while the non-RMA results isolate the changes at the other chain. Regardless of the interpretation, the estimated impacts are larger in magnitude for the low-cost basket prices, implying larger price impacts for low-income and price sensitive households. The food-at-home Consumer Price Index (CPI), the indicator used by the federal government to track grocery price inflation, has increased by an average of 2.2% per year since 2000, with higher increases since 2020. All positive coefficient estimates yield price increases greater than that, meaning that for stores with higher prices following the mergers, food prices increased more than a typical year's worth of inflation. Statistically, there is no significant difference between the interaction effects with groups 2 and 3. Therefore, we do not find any evidence of price impacts on competing supermarkets resulting from the merger.

Discussion: Policy Solutions

Our results to date suggest that the merger of interest resulted in higher food prices, at least in some markets, and may have reduced food access. While more work remains to be done to finalize and identify the impact of this and other mergers, the fact remains that MA activity in the food retail sector has the potential to drive a series of economics impacts that are not well understood.

Food prices are notoriously challenging to measure, particularly at the store level. A typical supermarket carries around 40,000 unique items, giving consumers many substitutes both within and across product categories. Even measuring prices for commodity-based categories is fraught with complications. Consider fresh apples. Consumers in most supermarkets can choose among apple varieties, between bulk and bagged apples, conventional and organic, and even whole or sliced apples. Moreover, consumers may opt for other fruits altogether, for example oranges or pears, if apple prices are higher than expected. This product substitution behavior complicates price measurements, because if consumers generally shift their purchases from more expensive options to less expensive options, tracking prices for products or even categories may not accurately reflect the prices paid by consumers. Additionally, product assortment can vary significantly across retailers, making accurate comparisons across stores especially difficult if not intractable.

We argue that our approach to measuring food prices, via shopping basket prices using store scanner data, circumvents most of the issues related to measuring food prices. The price data collected by the Bureau of Labor Statistics for the CPI do not, to our knowledge, include substitutes within product categories and therefore are too limited for these purposes. The quantity weights used to calculate these baskets are flexible. Therefore, we use the TFP quantities and, in doing so, measure changes in the cost of eating a healthy diet. Other researchers investigating these questions may consider experimenting with these weights. For example, using those more consistent with actual consumer spending in the U.S., such as those available from the Executive Summary of the DGA, can facilitate basket prices representative of average consumer spending.

The potential benefits of store-level basket prices are many. For one, researchers can henceforth use scanner data to measure the price impacts of previous mergers to develop and update review

guidelines. For another, these metrics facilitate improved, expanded, and updated measures of the price-concentration relationship in food retailing. This can in turn update current benchmarks about market concentration in well-defined markets. Currently the Department of Justice relies on a set of concentration thresholds to define concentrated markets (DOJ, 2018), and these could be updated and revisited specifically for the supermarket industry. Grocery is distinct from many other industries due to the large number of products, the heavy share of in-person transactions, the inelastic nature of the demand for food, and the slim operating margins of retailers.

Finally, with respect to prices, regulatory agencies, such as the FTC, may consider tracking TFP prices in the wake of MA events. There is a precedent for this in food assistance programs in the U.S. For example, in the California WIC program, retailers are required to set prices for WIC-eligible products at or below mandated maximum levels (McLaughlin et al., 2021). Scanner data are typically available for the year prior to MA activity in the industry, meaning that regulatory agencies can assess prices for the respective TFP groups for the year following MA events

Market definition, with respect to supermarket MA activity, likely needs to be revisited as well. Traditional, geography-based measures of markets are problematic for supermarkets, as well as many other industries. Depending on population density, defined geographic conventions such as counties, Census tracts, or Census blocks are either too vast or too small. In addition, households regularly travel across the boundaries of these geographic areas to shop for groceries, depending on the location of the nearest supermarket, work commutes, and other factors. Advancements in our understanding of consumer shopping habits and travel distances (e.g. Ver Ploeg et al., 2015) and the use of ArcGIS and comparable tools for assessing distances between stores provide more attractive options. A body of economic research increasingly studies competitive effects in grocery using store distances, rather than boundaries (Ellickson and Grieco, 2013; Ellickson et al., 2020). These considerations factor importantly into MA policy and guidelines, as FTC merger approvals are frequently contingent on the divestment of stores (FTC, 2021).

An additional concern with respect to markets is the increased buying power that may result from MA activity. Increased size and market share in grocery is associated with buying power, or the ability to bring received prices for goods down. This is an issue that transcends market boundaries, as price impacts may result even when the merging firms do not share geographic markets. It has the potential to harm upstream suppliers, as well as consumers. Suppliers offering preferential prices to larger retailers may in turn offer significantly higher prices to smaller retailers to maintain operating margins, thereby raising prices for consumers in some markets. The Robinson Patman Act of 1936 was designed for the express purpose of addressing this potential concern, but it has been largely unenforced for decades in the U.S. (Yonezawa et al., 2020).

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Exclusionary Slotting Fees in Grocery Retail

Sophie D'Anieri & Charlie Mitchell

Introduction

New food producers looking for a chance to put their product on the shelf in a retail store often face a crucial and under-discussed barrier: slotting fees. Slotting fees are encountered by brands in the following ways: one-time payments to the retailer in exchange for retail shelf space for their products, or as “free fills,” generally meaning a free case of product in exchange for retail space. While the payment amount or the number of free fills required varies, slotting is practiced across retailers of all sizes, geographic location, and within most categories of consumer packaged goods (CPG) (FTC 2001b). In addition to payments for shelf space, supermarkets also charge additional fees for spots in a freezer, or in promotional areas such as the end of an aisle or at the checkout line. Gary Rivlin writes: “those fees, or the equivalent in free products, can add up to hundreds of thousands of dollars in payments each year” (2016).

A 2016 report estimated the cost of introducing a new item to all stores in the country’s largest grocery chains to be \$1 million or more (Rivlin). And at a 2001 Federal Trade Commission conference, one speaker estimated the cost of introducing a small product line of four items in all supermarkets nationwide as \$16.8 million (FTC 2001b). A typical food manufacturer devotes about 20 percent of its sales revenues to trade spend, the second highest expenditure, after the cost of producing the product (Lazar 2016). Altogether, CPGs pay stores more than \$200 billion a year in trade fees—a 2015 report declared trade spend a “vital source of income for retailers” (Goldman Sachs 2015).

Large food manufacturers with substantial marketing budgets can afford the cost of getting their products on shelves, as well as extra promotional spaces. However, for small and emerging businesses with little access to capital, slotting can be crippling. Critics argue that slotting is not only anti-competitive, but it also reduces consumer choice as corporate contracts take preference over consumer desires (Thayer 2015, Rivlin 2016). And with substantial profits to be made by selling expensive shelf space, one supermarket consultant with over 35 years in the business said, “make no mistake, the supplier is the store’s real customers” (Rivlin 2016).

Despite the noted anticompetitive and exclusionary effects of slotting fees, some emphasize the role that slotting fees play as a screening mechanism or a kind of insurance for retailers introducing new and untested products (Chu 1992, Richards and Patterson 2004, Lariviere and Padmanabham 1997, and Desiraju 2001). Slotting enables grocery stores to mitigate the risk of allocating shelf space to a product that may not sell at a profitable velocity.

Introduced in the 1980s, slotting has become a more costly and widespread practice in United States groceries (FTC 2001b, Jennings 2001, Bloom 2000, Nestle 2006), and its increased prevalence coincides with the relaxation of antitrust regulations and a corresponding wave of consolidation in the 1990s (USDA ERS 2021, Howard 2021). In 1990, the top 20 supermarkets accounted for roughly 35 percent of sales nationwide. By 2000, that percentage jumped to around 55 percent, with 85 percent of retailers charging slotting fees (Wilkie 2002). In 2016, the country’s remaining independent supermarkets together accounted for less than 5 percent of the country’s supermarket sales (Rivlin 2016), while as of 2018, the top four grocery retailers in the

United States maintained over 45 percent market share (Howard 2021). Slotting fees, some argue, are a result of increasing power in the hands of large corporate grocery retailers at the expense of consumers and small and emerging food producers. Marx and Shaffer (2007) note the relatively low bargaining power of small manufacturers, while the FTC (2001a) reported that “when it comes to small manufacturers, the retailer probably has all of the power.”

Slotting fees have been the subject of antitrust litigation, as well as the focus of congressional hearings (U.S. House 1999; U.S. Senate 1999, 2000). In 1999, the U.S. Senate Committee on Small Business & Entrepreneurship held a hearing on slotting fees, ultimately authorizing further research by the Federal Trade Commission. Both the 79-page report conducted in 2001 and the 65-page report of 2003 concluded that further study was needed before the agency could take action, despite noting that slotting fees shut out smaller competitors and led to fewer choices for consumers (Howard 2021, Rivlin 2016).

In this paper, we discuss the barriers slotting fees pose to small food producers, the risks they present to competition in US grocery, and an analysis of the solutions presented by small brand entrepreneurs and consultants.

Methodology

We conducted a series of qualitative interviews with eight founders/CEOs of emerging brands, three sales or expansion representatives, seven industry consultants, one retail buyer, and one distributor. We considered “an emerging brand” to be any brand that had not yet or was currently in the process of moving to national distribution and a consultant to be an individual who provided business advice and support to emerging brands in return for compensation.

Findings

Experiences and perspectives on slotting today

Interviews yielded unanimous confirmation of the circumstances relating to slotting fees described in the literature. New brands face cash slotting fees in certain retailers and free fills in most major grocery stores, often between one and three cases per SKU per store, and trade spend requirements in the hundreds or low thousands on a monthly or quarterly basis. These cash requirements in the form of marketing promotions, slotting fees, and free fills can approach \$100,000 per SKU for a national launch at every banner (subsidiary chain) of a top grocery conglomerate, and \$50-\$75,000 in others. For example, assuming a \$20 case of product, a four-SKU launch at 500 Whole Foods Market locations requires \$40,000 in free fills alone. Depending on payment terms, the product that does get sold to the retailer is often billed back 60 days later or more, usually at a fraction of the true cost thanks to chargebacks from promotions.

These up-front requirements amount to a significant barrier to market for developing CPG food businesses, making the leap to traditional grocery retail a risky one even for well-established brands operating with strong revenues and excellent regional traction. These fees often place brands in the position of forgoing profitability often for several years just to find out whether their product will succeed in a given retailer. Meanwhile, twice-annual category reviews

make it common for brands to be discontinued early in this process, with no means of recuperating losses. Experts and veterans in CPG characterized slotting fees as a distortion in the CPG market that entrenches incumbent multinational brands—a situation that has continuously worsened since the practice began several decades ago.

The barriers posed by slotting have profound influence on the nature of American grocery aisles. “Slotting creates a monocrop of products” on grocery shelves, one brand consultant told us. This pay-for-play system that one interviewee described as “legalized racketeering” favors the largest brands who can lord over entire categories thanks to practically infinite capitalization and the flexibility to take losses in the millions. Meanwhile, for emerging brands, “going up against a major brand is almost a fantasy” without significant lead time and a lot of commitment and patience from retail buyers.

Founders and brands tend to understand that slotting and other fees are often negotiable, though one veteran consultant voiced that the negotiability of these fees has reduced significantly in recent years. The opacity and variation in negotiability between retailers creates a quagmire that brands with limited experience and who lack connections in CPG fail to navigate well. This insider’s club funnels success and wealth to the white men in power at the disadvantage of those who are traditionally excluded from these networks and relationships.

Many younger founders with fewer than five years of experience in CPG took slotting fees as a given and offered suggestions to adjust to the system, expressing sympathy for the “risk-mitigation” argument put forth by retailers. However, experienced actors in the industry who could remember when slotting fees didn’t exist were far less sympathetic. One industry veteran was quick to “completely dismiss the premise of the [retailer’s risk-mitigation] argument.” “Grocery stores—merchants, forever—have survived by being smart about knowing what their customers want and providing it, and to say that it’s up to the manufacturer to insure that the retailer is financially whole before they even start to sell a product, is just greed.”

Consolidation, and in particular the purchase of Whole Foods Market by Amazon, has led to a decline in regional buyers with the leeway to build relationships with new and emerging manufacturers in a given locality, and has had the effect of diminishing the available on-ramps for new brands. This trend has increased retailer’s leverage against brands who have fewer places to go to purvey their product and grow their business, and shifted even more leverage to retailers in the negotiation process.

One industry veteran pointed out that slotting fees were explicable by the increased expectations in profit margin across the industry that have emerged in recent decades. This increase in margin demands comes as a result of continued emphasis on mergers and sales to private equity, shareholder buybacks, and the privilege of investor profits. One former buyer at a regional grocery chain estimated that slotting fees accounted for about 17 percent of profit margin alone, and were a crucial tool in hitting quarterly growth targets. As the firm was setting these goals in anticipation of an Initial Public Offering (IPO), the incentive to draw on slotting fees rather than traditional sales revenue increased dramatically. In many conversations, we were informed that the sale of small and regional grocery chains to private equity firms places a similar distortion in desired metrics that disincentivizes buyers from working to cultivate new brand relationships or even pay serious attention to the desires of customers.

Several members of our research group pointed out that with free cases and promotional fees paid by new brands, turnover becomes a built-in profit engine for certain retailers, and as a result, the retailer has limited vested interest in seeing brands succeed.

On the brand side, high upfront costs often force brands to seek venture capital (VC) financing in order to achieve national scale. This generally means they are prematurely confronted with the decision to compromise their equity position, leadership, and business strategy (including exit strategy). Founders hoping to ground their business in a community, grow carefully, and own their business for the long haul generally made the choice to avoid venture capital, and by extension, grocery stores.

Increasing reliance on venture funding has the effect of gatekeeping the food manufacturing industry in favor of white men even more than existing structures already were: 2 percent of VC money goes to women, and even despite recent manifold increases in funding (Chapman 2022), Black founders received 1.2 percent of VC investment in 2021 (Kunthara 2021). Black women, riding a five-year high, received .34 percent (Kunthara 2021).

When well-proven and highly successful brands are consistently bewildered by expectations due to lack of transparency and bombarded with fees and marketing requirements such that even the top new manufacturers have trouble meeting them, the result is a clear indication that the system is dysfunctional. Slotting fees are a consequence of a highly consolidated industry, and clearly act as an exclusionary force that further entrenches the power of retailers and the largest manufacturers.

Solutions

Political and regulatory interventions

Congressional hearings as well as the FTC investigated slotting fees in the early 2000s. Our research makes clear that this work should be renewed, especially given reports that in the near quarter-century since slotting fees were last put under review in Washington, the practice has grown vastly more pervasive and the industry has further consolidated.

Concentration has endowed retailers with excessive power. Antitrust action that breaks the stranglehold of the largest grocery retailers on national supply chains would disrupt the “race to the bottom” on margin and sales that converts grocery shelves into a warzone of extraction. Legal action that restores regional and local purchasing should be undertaken in the public interest, perhaps in the name of food sovereignty.

A trade group might lobby on behalf of small and new manufacturers and take on various efforts to reform slotting fees or better yet, work to ban them. One founder suggested that brands ought to collectively negotiate slotting rates to rebalance the locus of power by building market and political solidarity. When presented with this idea, some founders thought it useful, but it wasn’t front of mind, and there are clear barriers to organizing in this fashion that make it different from a traditional labor formation. Others believed that, even with coordinated action, small brands can’t challenge incumbent food manufacturers without antitrust policy intervention.

In addition to slotting fees, distribution fees and kick-backs contribute to a massive cost pile-up that brands have to incorporate into their cost of business even while reaching for ever-climbing retail margin demands. If retailers have a reputation for opaque and extractive business practices that squeeze brands, distributors are on par, if not worse. Further research and policy recommendations on breaking consolidated power in distribution are clearly warranted.

Improving the current slotting system

While several founders, especially those with fewer than five years' experience, expressed sympathy for the idea that retailers want brands to have "skin in the game," those founders offered a litany of suggestions that would ameliorate the current slotting system.

Many retailers charge the same slotting per-case for products regardless of whether they are single-use (such as soda) or whether they stay in peoples' refrigerators for 6 months at a time (like condiments). Brands argued that free fills and slotting fees ought to be revised to consider typical velocity by category, case size, and SKU, to calibrate in a way that made them most effective for a given business. (In some retailers this is the case.)

Similarly, founders and experts felt that brands ought not to be held to the same standards of velocity and trade spend as multinationals with shelf space in the same category. The incumbent brands' long tenure and severe market control create a situation where new brands are paying vastly higher slotting fees than their diversified and highly capitalized competitors. A sliding scale was mentioned in our conversations, including a special tier for small businesses. These arrangements often surface arbitrarily or as part of the negotiation process, but ought to be institutionalized or required.

Especially because free fills and slotting fees don't in and of themselves help a new product earn traction and increase its chance of success, brands prefer to see these fees go to promotional programs, which are often required by retailers and a better use of this money. However: promotions also need to become more effective. Brands often feel that while promotional fees are not literally slotting fees, they amount to "just writing the retailer a check," and major industry studies have shown that the majority do not contribute to a brand's growth (Yoon 2012).

Retailers hold disparate reputations on their participation in slotting and free fills, and in fact, the sheer variation presents a simple challenge to brands that have to reach out to prospective retailers without an understanding of the trade spend/slotting costs involved. Consultants and founders alike voiced the utility of transparency in expectations and discussion of negotiations as a meaningful reform that would level the playing field in CPG retail. It must be noted that this would be a marginal improvement on the current system, given that brands can discover this information with some effort, though it could and should be easier.

Founders discussed the need to talk amongst one another to share information that would help each of them succeed. This takes place on an informal basis in the normal networking process, and in some more formal spaces, such as Slack channels specific to CPG founders of color.

Discussion

Beyond slotting: a corporate-controlled supply chain that prioritizes shareholders & investors

Unanimous in our conversations was the assertion that slotting fees are just one factor that contributes to structural inequity in access to retail markets for CPG brands. Other barriers included distribution fees and buybacks that eat into profit, unrealistic sales expectations from buyers, ineffective and onerous trade spend and marketing requirements, increasing pressure on fast ROI from investors, the need for large amounts of venture capital, demands from retailers for excessive margin, the homogeneity of investor and grocery spaces (white and male-

dominated), and in the case of brands led by women founders and founders of color who are increasingly sought-after to meet corporate quotas, a lack of perspective on nurturing young businesses and growing sales targets gradually.

These insights and perspectives gleaned in our research laid bare that slotting fees and accompanying barriers to entry for CGP retail food businesses are easily viewed as a built-in capitulation to investors, multinational corporations, asset managers, private equity, and venture capital at the expense of small and underserved brands, consumers, and communities who want a say in the food on their shelves.

Implications for equity and food sovereignty

Slotting fees, as many pointed out, are just one piece of the problem. However, they are a powerful manifestation of corporate power in the food system. Slotting fees and these compounding barriers to entry not only “discourage innovation” and limit new businesses, but they also create an unbreakable alliance between the largest retailers and the largest manufacturers in the world, both of which are highly consolidated and more accountable to investors and shareholders than they are to communities in which they operate. This subsidy to scale likely contributes to the myth of “expensive” local food that is only available in alternative channels that exclude the vast majority of food shoppers in a given community.

Slotting fees and other such practices force us to ask the question: How do we have transparently-produced, healthy, relevant food produced by people in our own communities? Regional and national retail chains are an essential pathway to feeding any target market, and thus a question of food sovereignty for a given community.

Retailers are far from unaware of the large barriers for new brands and the social injustices that bar groups of people from the capital and connections that drive a successful business. Special programs designed to elevate businesses founded and run by women and people of color have launched in large retailers like Target in recent years. While in theory commendable, these programs are reportedly inadequate and “few and far between.” We spoke to founders of color who avoided or passed up on these programs because they had watched brands relinquish significant control and/or equity in their company only to get scaled too quickly and implode. While programs like this are clearly in the interest of retailers to display a commitment to ameliorating social inequity by supporting diverse brand owners, their priorities have been criticized as cosmetic, and their follow-through reported as underwhelming, and at worst neglectful.

However much specialized programs improve and exceptions are made for diverse and emerging brands, the fact remains that as long as slotting fees and other extractive approaches persist, grocery shelves will remain structurally inaccessible to a diverse set of brands, founders, business models, and financing levels.

Free fills, trade spend, and slotting fees continue to serve as a lucrative and built-in practice for retailers to pad their margins on pure revenue that contributes to an anti-competitive playing field, which harms consumers, small and community-scale enterprise, marginalized communities and small business owners. Slotting is an encapsulation of the grocery industry’s financialized, super-consolidated nature and its consistent emphasis on extraction, investor and shareholder wealth, and expanding profit margins over its original, noble purpose: feeding people.

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Anticompetitive Challenges in America's Food Retail Industry: The Power of Category Captains

Gregory T. Gundlach & Riley T. Krotz

Category management is a common marketing practice wherein the products of a retail establishment are divided up into categories (e.g., meat, produce, soft drinks, condiments, etc.) and then managed as if each category were a free-standing business. The most popular approach involves outsourcing category decisions to a single – often the leading or dominant – manufacturer in a category. Through their role, the “category captain” (hereafter “CC”) offers its resources in return for the ability to influence decisions in the planning and management of a retail category – including those involving rival competitors. As competition policy and law focuses on the ability of market participants to adversely affect the competitive process and harm consumers, the dominant status of some CCs and their breadth and depth of influence over category decisions has caused anticompetitive concerns.

The fear is that a powerful CC may act opportunistically and favor its own brands at the expense of rival manufacturers and the broader category, adversely affecting what products are available in the store, where products are located on shelves, when they will be advertised, and at what prices they will be offered to consumers. As a type of exclusionary conduct, this form of opportunism can impede competition, limit new entry, lessen consumer choice, reduce product quality, and stifle product innovation. Concerns for CCs have been exacerbated recently by the spread of CCs to nontraditional product categories (e.g., fresh meat, poultry, seafood, fresh fruits and vegetables, etc.). In these categories products may be unbranded (or less visibly so) rendering a CC’s exclusionary conduct less apparent and therefore more difficult to detect. Consequently, although first studied and investigated nearly two decades ago, the ability of CCs to distort competition and harm consumers has attracted renewed attention and prompted new calls for increased scrutiny of powerful CCs and their competitive and consumer consequences.

An important threshold question in competition-based investigations and legal analyses involving CCs is whether they possess enough market power to adversely affect competition and harm consumers. Conventional assessments of market power rely upon market-level and share-derived calculations of a firm’s horizontal competitive position together with other factors (i.e., entry barriers). Based on these calculations some argue that CCs rarely possess enough market power to adversely affect competition and harm consumers. However, others contend that CC’s arrangements are unique and that, in addition, firm-level and decision-focused approaches that capture a CC’s vertical interfirm power are needed to fully understand a CC’s ability to distort competition and harm consumers. The contention is that the breadth and depth of influence over category decisions conferred to some CCs (i.e., vertical interfirm power) can enhance and augment their horizontal market power yielding higher levels of power overall.

Addressing the question of CC power, we investigate and elaborate on the two types of power that may confer power to a CC – horizontal market power and vertical interfirm power. Previously identified in the literature, the nature and sources of these two types of power and

how they combine to confer power to a CC has not been fully elaborated upon. The framework we develop offers an organized basis for identifying and understanding the different types and sources of CC power that can be applied in forensic analyses and legal investigations of CC power to identify circumstances where a CC possesses the power to distort competition and harm consumers. In this way, our work contributes to the growing body of literature that advances public policy understanding of category management involving CC arrangements. We conclude by offering insights for competition policy and law.

Category Captain Power

Following from the introduction, consideration of two different types of power – market-based (i.e., horizontal) power and interfirm-based (i.e., vertical) power – is necessary to fully understand a CC’s potential to distort competition and harm consumers. Each type of power is supported by different sources of power. Together, the two types of power and their sources combine to create the overall power of a CC.

Market-Based (Horizontal) Power and Sources

To understand a firm’s market power, as previously described, competition and legal analyses generally draw upon share-derived calculations of an individual brand’s horizontal market position within a narrowly defined market together with consideration of entry barriers and other factors. Thus, a CC’s market-based power is typically understood by focusing on the power that emanates from sales of a single brand in the category for which they provide CC services. However, a CC’s ability to affect competition may also derive from their sale of multiple brands in the category and from a CCs performance of category management services in other categories, channels, and retailers. These sources of power are not generally captured through share-based analyses found in competition policy and law. However, to fully assess the market power of a CC, it is important that all sources of horizontal market power be considered and accounted for including those inside and outside the category. As described in Table 1, in addition to single-brand power these include multi-brand power, multi-category power, multi-channel power, and multi-retailer power.

TABLE 1. SOURCES OF MARKET-BASED CATEGORY CAPTAIN POWER

Source	Overview	Description
Single-Brand Power	Power derived from the presence of the CC's brand in the retail category	The strong relative competitive position of a dominant brand sold by a CC can provide the CC with a considerable basis to affect competition in the category
Multi-Brand Power	Power derived from the presence of multiple brands of the CC in the retail category	Depending on how the sales and shares of brands are accounted for, a CC that sells multiple brands is likely to be in a stronger position to affect competition in the category
Multi-Category Power	Power derived from the CC's role as a CC in multiple categories of the retailer	To the extent a CC is present in multiple categories, their ability to affect competition in any category is magnified
Multi-Retailer Power	Power derived from a CC's role as a CC in multiple retailers	A multi-retailer presence can confer additional power to a CC, as performance in multiple retailers can extend a CC's ability to affect competition
Multi-Channel Power	Power derived from a CC's role as a CC in multiple distribution channels	Where multiple retail channels are used, CCs can coordinate their efforts through omni-channel strategies across the different channels, conferring additional power to the CC to affect competition

Given different approaches are relied upon to appoint CC's, consideration of the different share-based sources of market power more fully captures the range of positions a CC may occupy relative to other competitors and therefore its market power. Depending on the circumstances a CC may or may not possess each of the different sources of market power. That is, they may or may not offer more than one brand in a category or offer category management services in other categories, retailers, or channels. Thus, each should be viewed as a potential source of market-based power to be considered and evaluated in competition-based assessments of CC market power.

Interfirm-Based (Vertical) Power and Sources

To fully understand a CC's power to adversely affect competition and harm consumers, as previously described, it is also important to understand their inter-firm based vertical power

and the sources of this power. Within the context of distribution arrangements, conceptions of interfirm power have historically been regarded as central for understanding how one channel member can change or modify the behavior of another member within its channel of distribution. Thus, power in channel relationships is defined in vertical terms as the ability of one channel member (e.g., a manufacturer) to affect the marketing decisions of another channel member (e.g., a retailer). One approach for identifying the different sources of vertical interfirm power held by a CC is the taxonomy of power bases first developed by French and Raven. The taxonomy is widely relied upon for the identification and study of interfirm sources of power within the marketing and distribution literature. Applied to CC arrangements, as described in Table 2, potential sources of vertical interfirm power held by a CC include reward, coercive, legitimate, referent, expert, and information power.

TABLE 2. SOURCES OF INTERFIRM-BASED CATEGORY CAPTAIN POWER

Source	Overview	Description
Reward Power	Power derived from a CC's ability to mediate rewards (e.g., economic and noneconomic) to the retailer and/or retail buyer	Rewards provide power to a CC by creating either an explicit or implicit quid-pro-quo relationship as to the CC's role and influence in the category
Coercive Power	Power derived from a CC's ability to mediate punishments to the retailer and/or retail buyer	Coercion in the form of rewards (e.g., economic and noneconomic) being withheld or conditioned on certain outcomes can be a source of influence in the category
Legitimate Power	Power derived from a CC's legitimate right to make decisions in the category	Reference to formal contracts, less formal agreements, and/or status and experience can authenticate or legitimize the CC's role and thereby increase their influence in the category
Referent Power	Power derived from a retailer's or retail buyer's identification with a CC	Where members of the CC organization have direct and extensive contact with the retailer, CCs may obtain influence in the category based upon a retailer's identification with them
Expert Power	Power derived from the perception that a CC has special knowledge or expertise in the category	CCs that provide expertise and/or special knowledge can derive considerable influence in the category based upon being a recognized expert
Information Power	Power derived from the CC's ability to control information in their relationship with a retailer	CCs can derive influence in the category based upon their control of information asymmetries (overtly or organically)

The taxonomy of power bases offers a useful basis for identifying the sources of vertical interfirm power potentially held by a CC. Depending on the circumstances, some power sources may or may not be found in a CC arrangement. Furthermore, each source may reside individually, or in combination, within a CC arrangement. Each source may also manifest at the interorganizational (firm-to-firm) or interpersonal (person-to-person) level. Consequently, each should be considered and understood in competition-based assessments of CC power.

Interplay of Types and Sources of Power

The contention of this paper is that to fully understand the power of a CC to distort competition and harm consumers, it is imperative to identify both horizontal market power and vertical interfirm power for CCs and consider their sources. As described, the interfirm-based power of a CC can serve to bolster and reinforce the CC's market-based power (and vice versa). As first explained two decades ago by economist Robert Steiner:

“When a manufacturer can influence a large retailer's decisions over the selection of items from its firm and from its competitors' firms, as well as their pricing, shelf positioning, and promotion, it has gained market power horizontally. Equally, it has gained market power vertically by taking over these vital functions, with their decision-making powers, that were formerly the province of the retailer.”

Thus, to the extent a CC can influence a large single retailer or a number of important retailers' decisions in selecting products, arranging shelves, scheduling promotions, and setting the prices of rivals' products (i.e., interfirm power), their ability to distort competition and harm consumers increases (i.e., market power). Further, a CC's market power can increase a CC's interfirm power. Thus, as shown in Figure 1, a CC's overall power is greater to the extent it possesses higher levels of the two types of power.

 FIGURE 1. INTERPLAY OF MARKET-BASED AND INTERFIRM-BASED POWER

		Market-based Power	
		High	Low
Interfirm-based Power	High	<p style="text-align: center;"><u>Quadrant I</u></p> <ul style="list-style-type: none"> • <i>High</i> relative position among competitors in the category • <i>High</i> capacity to influence retailer decisions in the category 	<p style="text-align: center;"><u>Quadrant II</u></p> <ul style="list-style-type: none"> • <i>Low</i> relative position among competitors in the category • <i>High</i> capacity to influence retailer decisions in the category
	Low	<p style="text-align: center;"><u>Quadrant III</u></p> <ul style="list-style-type: none"> • <i>High</i> relative position among competitors in the category • <i>Low</i> capacity to influence retailer decisions in the category 	<p style="text-align: center;"><u>Quadrant IV</u></p> <ul style="list-style-type: none"> • <i>Low</i> relative position among competitors in the category • <i>Low</i> capacity to influence retailer decisions in the category

Conclusions and Recommendations

Understanding the different types and sources of power and how they combine to empower a CC addresses an important question in competition policy and law: under what circumstances does a CC possess enough power to affect competition and harm consumers. Different views exist as to this question and as to whether current approaches provide an adequate basis for understanding the power of a CC. Building on prior insights and integrating existing knowledge in marketing and competition policy and law, we developed a conceptual approach (i.e., a framework) for identifying those circumstances in which a CC holds the most potential to distort competition and harm consumers.

An important benefit of this approach is that it can be applied to the many different channel structures and product settings where CCs are found. Thus, it can be applied to the

myriad settings for which CC arrangements occur, including product categories for which unbranded (or less visibly so) products are offered for sale (e.g., fresh meat, poultry, seafood, fresh fruits and vegetables, etc.). Another advantage is that the approach decomposes the different types and sources of power into their more basic elements. Thus, the framework can be applied and operationalized in more specific and practical terms. A final benefit is that the framework extends and augments existing approaches for understanding market power. Thus, in conceptual terms, it is compatible with existing thought.

CC arrangements represent a distinctly unique trading arrangement. Elements of their horizontal and vertical configuration can confer significant power to a CC to distort competition and harm consumers. Our approach offers a conceptual framework for understanding CC power that should be of use to members of the competition policy community interested in fully understanding this power. This includes competition policymakers, enforcement authorities, legal professionals, forensic experts, and others responsible for marshaling evidence and showing the existence of a CC's power. Used as a guide, the framework offers an organized and systematic approach for understanding the power of a CC to distort competition and harm consumers.

Kickbacks and Corporate Concentration: How Exclusionary Discounts Limit Market Access for Community-Based Food Businesses

Claire Kelloway & Matthew Jinoos Buck

Introduction

Nearly every step along the food supply chain has become more concentrated since the 1950s, including food retail. As recently as 1997, American consumers bought only 21% of their groceries from the then-largest four retailers.¹⁹⁹ By 2019 the top four grocery retailers sold 43% of all groceries in the United States, with Walmart alone commanding more than a quarter of all sales.²⁰⁰ Estimates that factor in wholesale and buying clubs put grocery consolidation even higher, with the top four firms commanding 69% of sales.²⁰¹

A handful of large food manufacturers increasingly control store shelves. A 2021 analysis by Food & Water Watch of 55 grocery categories found that more than 60% were controlled by “tight oligopolies,” meaning the top four firms claimed more than 60% of all sales.²⁰² Their analysis also found that many top conglomerates such as Kraft Heinz, General Mills, PepsiCo, and Unilever were among the top four leaders in more than five different categories. A wide array of brands conceals the fact that dominant consumer packaged good (CPG) corporations may own many brands and buy up emerging competitors as a growth strategy.²⁰³ Large upfront capital requirements for food businesses also perpetuate systemic inequalities. Many founders rely on their family and social networks for seed capital, privileging wealthy and thus disproportionately white founders.²⁰⁴

¹⁹⁹ Food & Water Watch, *Grocery Goliaths: How Food Monopolies Impact Consumers*, Dec. 2013, 12, <https://foodandwaterwatch.org/wp-content/uploads/2021/03/Grocery-Goliaths-Report-Dec-2013.pdf>.

²⁰⁰ Alexander Bittle & Katie Arcieri, *Independent Grocers Could Lose Share to Korgor, Amazon Amid Coronavirus Crisis*, S&P GLOBAL MARKET INTELLIGENCE, May 7, 2020, <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/independent-grocers-could-lose-share-to-kroger-amazon-amid-coronavirus-crisis-58359752>.

²⁰¹ Food & Water Watch, *The Economic Cost of Food Monopolies: The Grocery Cartels*, Nov. 2021, 2, https://www.foodandwaterwatch.org/wp-content/uploads/2021/11/IB_2111_FoodMonoSeries1-SUPERMARKETS.pdf.

²⁰² *Id.*, 5-7

²⁰³ Peri Edelstein, Krishnakumar (KK) S. Davey, Aman Gupta, Seth Marcus, & Cara Loeys. *How CPG Leaders are Using M&A to Bolster Growth*, BCG, April 17, 2019, <https://www.bcg.com/en-us/publications/2019/cpg-leaders-using-m-and-a-bolster-growth>.

²⁰⁴ Lynnise E. Pantin. "The Wealth Gap and the Racial Disparities in the Startup Ecosystem." 62 ST. LOUIS UNIV. L.J. 419 (2018); Telephone Interview with Errol Schweizer, former Vice President of Grocery, Whole Foods Market (Jan. 7, 2022) [hereinafter Schweizer Interview].

Such consolidation not only concentrates wealth in the nearly trillion-dollar packaged food and food retail industries, but as the COVID-19 pandemic made clear concentrated food production, distribution, and retailing systems are vulnerable to disruption.²⁰⁵ For decades scholars and activists have touted the benefits of more regional, democratic, and community-driven food systems for the environment, rural economies, and communities excluded from or exploited by the current U.S. food system.²⁰⁶ This means vesting more food production and provision in entities that have greater community ties and values-driven structures, such as cooperatives, nonprofit food providers, local or regional food producers, businesses owned by Black people, Indigenous people, and other people of color (BIPOC), and worker-owned or directed businesses.

These food producers face numerous economic and social barriers including restricted market access due to corporate consolidation. Despite growth in direct-to-consumer food sales, such as farmers' markets or community-supported agriculture, these channels remain marginal, accounting for just 0.7% of all food sales in 2017. In order to grow and attain scale to be cost competitive, new, BIPOC-owned, and community-based food businesses need greater market access to the outlets where most people buy and consume food: grocery stores, restaurants, and institutional cafeterias.

There are many methods that the largest retailers and dominant food brands use to lock up these markets and exclude new entrants. Our paper focuses specifically on exclusive dealing and other forms of exclusionary payments or arrangements. Dominant food vendors can offer retailers incentives for not dealing with rivals or substantially limiting business with them, such as offering rebates tied to reaching a set sales volume or a portion of all purchases. (Withholding these incentives could equally be deemed a penalty for doing business with rivals.) Using qualitative data from interviews with ten food retail professionals and experts, industry studies, and academic research, we analyze both the prevalence of exclusionary payments in food retailing and how they increase barriers to entry for small and community-based businesses and favor dominant players.²⁰⁷

²⁰⁵ Grand View Research, *U.S. Packaged Food Market Size, Share & Trends Analysis Report By Product (Beverages, Ready-to-Eat Meals), By Distribution Channel (Supermarkets & Hypermarkets, Online), And Segment Forecasts, 2021 – 2028*, Feb. 2021, <https://www.grandviewresearch.com/industry-analysis/us-packaged-food-market>; U.S. Department of Agriculture Economic Research Service, *Food Service Industry Market Segments*, Feb. 7, 2022, <https://www.ers.usda.gov/topics/food-markets-prices/food-service-industry/market-segments/>.

²⁰⁶ Dara Bloom, Joanna Massey Lelekacs, Rebecca Dunning & Emma Brinkmeyer, *Local Food Systems: Clarifying Current Research*, NC State Extension Blog, Nov. 14, 2014, <https://content.ces.ncsu.edu/local-food-systems-clarifying-current-research>; Patricia Allen, *Realizing Justice in Local Food Systems*, 3 CAMBRIDGE J. REGIONS, ECON. & SOC'Y 295 (2010).

²⁰⁷ Schweizer Interview; Telephone Interview with anonymous former food service director for Compass Group (Jan. 12, 2021) [hereinafter Compass Group Interview]; Telephone Interview with anonymous former chef for Aramark (Mar. 17, 2021) [hereinafter Aramark Interview]; Telephone Interview with Andrew Cox, Director of Auxiliary Services, Smith College (Mar. 19, 2021) [hereinafter Cox Interview]; Telephone Interview with John Carroll, former Assistant Attorney General, New York State (Mar. 19, 2021) [hereinafter Carroll Interview]; Telephone Interview with Zachary DeAngelo, CEO and Founder, Rodeo CPG (Jan. 21, 2022) [hereinafter DeAngelo Interview]; Telephone Interview with Joel Henry, founder and CEO, Fig Food Company (Jan. 25, 2022)

Our research suggests that the use of rebates, slotting or promotional fees, and category captain arrangements in food retail has grown since the 1990s and that these payments and services have become an integral revenue stream or source of savings for some grocery stores and all major food service management companies.²⁰⁸ When vendors tie these payments or services to exclusivity, by offering larger payments in exchange for a greater portion of all sales or a certain portion of shelf space, this significantly limits competitors’ market access and may constitute effective exclusive dealing. By some accounts, exclusionary payments and agreements can leave less than 25% of a given food retail category open to competitors and new entrants.²⁰⁹ As revenue or savings from fees and services from dominant vendors becomes part of food retailers’ profit model, vendors do not need to strike explicit exclusive agreements to have a substantial exclusionary effect – limiting business to dominant vendors can be in both the vendors’ and retailers’ best interest at consumers’ and competitors’ expense.²¹⁰

Policymakers have several tools to challenge exclusionary payments and deals in food retail markets, through antitrust law or otherwise. The Federal Trade Commission can use its Section 5 rulemaking authority to ban exclusive dealing and other exclusionary contracting by dominant firms as *per se* illegal. The U.S. Department of Agriculture can similarly ban exclusionary marketing conduct by meatpackers under the Packers & Stockyards Act. Legislators at the national, state, and municipal level can also ban exclusive deals in food markets and within government food procurement.

Background on Exclusive Dealing

An exclusive deal is an arrangement between a buyer and seller for a good or service that forbids or restricts the buyer from purchasing from any other seller or the seller from selling to any other buyer. When a dominant firm uses an exclusive dealing arrangement, it can exert power over a firm to shut out, or “foreclose,” rivals from access to consumers or inputs. Aside from exclusivity provisions, companies can also secure exclusivity with rebates or other payments like

[hereinafter Henry Interview]; Telephone Interview with Pierre Jamet, Chief Sales Officer, Petit Pot (Jan. 27, 2022) [hereinafter Jamet Interview]; Telephone Interview with Karina Crain, former Senior Brand Marketing Manager, Chobani (Feb. 7, 2022) [hereinafter Crain Interview]; Telephone Interview with Diane Roy, Partner and Vice President of Grocery, Go Ventures (Feb. 10, 2022) [hereinafter Roy Interview]

²⁰⁸ Puanani Apoliona-Brown et al., *Be-Trayed: How Kickbacks in the Cafeteria Industry Harm Our Communities – And What to Do About It*, Real Food Generation, 12 (May 2020), <https://www.realfoodgen.org/kickbacks-report-2020>. (“One source that requested to remain anonymous ... suggested that rebates account for 40 to 50 percent of [Aramark, Sodexo, and Compass Group’s] net profits in their North American operations.”).

²⁰⁹ *Id.* at 11; Roy Interview; Complaint, In re McCormick & Co., Inc., No. C-3939, (F.T.C. May 2, 2000)

²¹⁰ John Asker & Heski Bar-Isaac, *Raising Retailers’ Profits: On Vertical Practices and the Exclusion of Rivals*, 104 AM. ECON. REV. 672, 681 (2014).; Paul W. Dobson, *Competing, countervailing, and coalescing forces: the economics of intra- and inter-business system competition*. 51 ANTITRUST. BUL. REV. 191-193 (2006) (theorizing how dominant retailers and vendors can develop mutual incentives to “coalesce” their market power, working together to restrict choice and protect incumbents).

slotting fees to effectively exclude rivals, also called *de facto* exclusive dealing.²¹¹ In these cases, dominant companies do not explicitly require a counterparty to transact with them exclusively but establish pricing or other business structures that penalize or strongly discourage counterparties from transacting with other firms.²¹² These arrangements do not need to secure 100% exclusivity to be unlawful; courts have upheld that *de facto* partial exclusive dealing arrangements can violate antitrust law.²¹³

The primary harm from all these types of exclusive deals comes from, as its name would suggest, their ability to exclude competitors and control independent businesses. Dominant corporations can abuse their position to coerce or demand concessions from trading partners that exclude rivals from accessing consumers, either fully or in part, which deters the entry of new competitors and prevents competitors from achieving minimum efficient scale given the dominant firms' foreclosure. Leveraging dominance to maintain dominance is an unfair method of competition that hurts consumers, competitors, and communities.²¹⁴

There are at least four primary justifications for exclusive arrangements on productive efficiency grounds.²¹⁵ First, exclusive deals can push dealers to focus only on the excluding party's brand. Second, exclusive deals can prevent dealers from using producers' investments to sell higher-margin rivals' products, or from "free riding" on producers' investments. Third, exclusive deals can prevent "passing off" or mislabeling other brands as the excluding party's. And fourth, exclusive dealing can help achieve economies of scale.

Many of the justifications for exclusive deals have limits, however. Legitimate contractual arrangements between firms of relatively equal bargaining power can be consistent with a principle of nondomination. But instead of requiring exclusivity, corporations could encourage loyalty by offering better terms.²¹⁶ Dealers may not be able to free ride on promotional services for a specific brand unless the excluding party's promotional efforts stimulate demand for

²¹¹ See Open Markets Institute et al., Petition for Rulemaking to Prohibit Exclusionary Contracts, 6-7 (July 21, 2020) (offering a hypothetical example illustrating how market share discounts can act as penalties for switching to rivals) [hereinafter Exclusive Dealing Petition].

²¹² See Willard K. Tom, David A. Balto & Neil W. Averitt, *Anticompetitive Aspects of Market-Share Discounts and Other Incentives to Exclusive Dealing*, 67 ANTITRUST L.J. 616, 621-630 (2000).; see *LePage's Inc. v. 3M*, 324 F.3d 141 (2003)

²¹³ *ZF Meritor, LLC v. Eaton Corp.*, 696 F.3d 254, 282-83 (2012) ("First, the law is clear that an express exclusivity requirement is not necessary because *de facto* exclusive dealing may be unlawful ... Second, an agreement does not need to be 100% exclusive in order to meet the legal requirements of exclusive dealing."); see also Opinion in United States, Appellee v. Microsoft Corporation, Appellant, 253 F.3d 34 (D.C. Cir. 2001) ("... a monopolist's use of exclusive contracts, in certain circumstances, may give rise to a § 2 violation even though the contracts foreclose less than the roughly 40% or 50% share usually required in order to establish a § 1 violation.").

²¹⁴ Sandeep Vaheesan, *The Morality of Monopolization Law*, WM. & MARY L. REV. ONLINE (forthcoming 2022), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3929159.

²¹⁵ See Jonathan M. Jacobson, *Exclusive Dealing, "Foreclosure," and Consumer Harm*, 70 ANTITRUST L.J. 311, 357-60 (2002) (listing the conventional justifications for exclusive dealing).

²¹⁶ See Exclusive Dealing Petition, 53-61 (raising issues with the conventional justifications of exclusive dealing petitions).

competing products too.²¹⁷ Other laws, such as consumer protection and tort law, address deception like passing off more precisely.²¹⁸ And businesses can achieve economies of scale through fair competition or volume discounts that reflect genuine lower costs of producing or distributing large orders (otherwise some volume discounts can be structured to unfairly exclude competitors).²¹⁹ Alternatives to exclusive arrangements also lower the risk of dominant producers coercing dealers and retailers and prevent them from exercising their independent business judgment.

Regardless of exclusive dealings' justifications, exclusive deals raise the most concerns when the excluding party is a dominant firm. A private plaintiff suing a defendant for an exclusive arrangement can plead violations of Section 3 of the Clayton Act, Section 1 of the Sherman Act, or Section 2 of the Sherman Act, depending on the facts.²²⁰ The Federal Trade Commission may sue under Section 5 of the FTC Act.²²¹ A public or private enforcer suing an exclusive deal must generally establish a relevant market where the exclusion occurred, the percentage of that market excluded from competitors, as well as other features like barriers to entry or less restrictive alternatives.²²²

Evidence of Effective Exclusive Dealing in Food Retail Markets

Exclusionary Slotting and Promotional Fees

Slotting fees can be one way for dominant producers to exclude rival producers from reaching retailers and customers. A slotting fee is a payment from the producer to a retailer to access that retailer's shelf space.²²³ Slotting fees help cover the cost of restocking shelves, which can be labor-intensive, and offset retailers' risks in giving limited shelf space to unproven products.²²⁴ When done by nondominant or emerging firm, slotting fees can theoretically convey manufacturer's confidence in a product's success.²²⁵ However, when done by a dominant firm,

²¹⁷ Exclusive Dealing Petition, 56-8.

²¹⁸ Exclusive Dealing Petition, 58-9.

²¹⁹ *Id.* at 60; see Tom, Balto & Averitt, *supra* note **Error! Bookmark not defined.**, at 629 n.39 (explaining how the Justice Department argued in the *Microsoft* case that monopolists can structure volume discounts as to become *de facto* exclusivity arrangements, by coercing buyers with the pricing structure to buy all or much of their needs from the monopolist); see also Brian Callaci & Sandeep Vaheesan, *How an Old U.S. Antitrust Law Could Foster a Fairer Retail Sector*, Harv. Bus. Rev., Feb. 9, 2022, (discussing the Robinson-Patman Act's ability to address buyer power) <https://hbr.org/2022/02/how-an-old-u-s-antitrust-law-could-foster-a-fairer-retail-sector>.

²²⁰ 15 U.S.C. §§ 1, 2, 14.

²²¹ See, e.g., *McWane, Inc. v. Fed. Trade Comm'n*, 783 F.3d 814 (11th Cir. 2015).

²²² 11 PHILLIP E. AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION*, ¶ 1820b, at 188, 193 (4th ed. 2018) [hereinafter Areeda-Hovenkamp Treatise].

²²³ *Id.*, ¶ 1807c, 157-59.

²²⁴ Crain Interview; Henry Interview ("There's labor the retailer is taking on to take [new] product on in addition to the risk.").

²²⁵ See Fed. Trade Comm'n, *Slotting Allowances in the Retail Grocery Industry: Selected Case Studies in Five Product Categories*, Nov. 2003, 1-3.

slotting fees can allow leading firms to use their market power to unfairly exclude competitors and raise rivals costs.²²⁶ These financial transfers benefit dominant manufacturers and retailers, but not necessarily consumers.²²⁷

All six people interviewed who either worked in the grocery sector or sold into the grocery sector acknowledged that slotting fees posed significant barriers to entry for new firms.²²⁸ To launch new products in several stores can cost anywhere from \$10,000 to well over \$100,000 depending on the retailer and region.²²⁹ A national rollout can cost over \$1.5 million.²³⁰ Slotting fees for refrigerated or frozen shelf space are generally higher.²³¹ With such high entry costs, it can be risky if not impossible for new brands to pay to get into larger chains, especially without any guarantee that they'll stay on the shelf long enough to make a return on investment. When asked how slotting fees compare to other barriers new food companies face, Pierre Jamet, the chief sales officer for Petit Pot, said, “[I]t’s probably at the top ... I think the biggest problem is you want growth and you want expansion, but you also know that is coming at a cost.” In other words, new brands have limited avenues to grow and reach efficient scales without paying large slotting fees.

Not all slotting fees are exclusive, but some can be. In 2000 the FTC found instances in which McCormick used slotting fees, along with other payments or discounts, to demand 90% of all spice and seasoning shelf space.²³² When a dominant producer uses slotting fees to take up enough shelf space so as to prevent competitors from reaching shelves, courts and enforcers can treat slotting fees like exclusive arrangements.²³³ Plaintiffs have challenged retail agreements, including slotting fees, as violations of the antitrust laws.²³⁴ The courts have tended to accept that the antitrust laws *could* reach slotting fees and other shelf space arrangements.²³⁵

Slotting fee practices vary considerably between retail chains. Our interviews and existing literature confirm that the practice began in the 1980s and has grown since.²³⁶ Local independent

²²⁶ Areeda-Hovenkamp Treatise, ¶ 1807c, 157-160.; Complaint, In re McCormick & Co., Inc., No. C-3939, (F.T.C. May 2, 2000).

²²⁷ Asker & Bar-Isaac *supra* note 12.

²²⁸ Schweizer Interview; DeAngelo Interview; Henry Interview; Jamet Interview; Crain Interview; Roy Interview.

²²⁹ Schweizer Interview; Roy Interview; Crain Interview; DeAngelo Interview.

²³⁰ Fed. Trade Comm’n, *supra* note 27, 56.

²³¹ *Id.*; Crain Interview; Roy Interview.

²³² Complaint, In re McCormick & Co., Inc., No. C-3939, (F.T.C. May 2, 2000)

²³³ Areeda-Hovenkamp Treatise, *supra* note 24, ¶ 180 c, 159.

²³⁴ See e.g., Dial Corp. v. News Corp., 165 F.Supp.3d 25 (S.D.N.Y. 2016) (challenging exclusive deals for in-store promotions); Church & Dwight Co., Inc. v. Mayer Laboratories, Inc., 868 F.Supp.2d 876 (N.D. Calif. 2012) (challenging discounts based on percentage of shelf space); El Aguila Food Products, Inc. v. Gruma Corp., 131 Fed.Appx. 450 (5th Cir. 2005) (challenging category captaincy and slotting fees of Gruma for grocery retail space); R.J. Reynolds Tobacco Co. v. Philip Morris, Inc., 199 F.Supp.2d 362 (M.D.N.C. 2002) (challenging retail marketing program); Coca-Cola Co. v. Harmar Bottling Co., 218 S.W.3d 671 (Tex. 2006) (challenging calendar marketing agreements under Texas antitrust law).

²³⁵ See *id.*

²³⁶ See Benjamin Klein & Joshua D. Wright, *The Economics of Slotting Contracts*, 50 J.L. & ECON. 421 (2007); Roy Interview.

retailers, for instance, may ask for a few free cases of a product instead of slotting fees from new suppliers.²³⁷ Interviewees said that chains with a better reputation of supporting new brands, such as Wegman’s, will waive slotting fees and instead run new products at a lower everyday price.²³⁸ Chains that rely on private label and a limited assortment, such as Aldi and Trader Joe’s, rarely charge slotting. The largest food retailer, Walmart, also does not charge slotting fees (though it has started charging other types of stocking fees).²³⁹ Four interviewees said that slotting fees were most common and more expensive at large national “high-low” grocers, including Kroger, Albertson’s, and Ahold Delhaize.²⁴⁰

In addition to slotting fees, producers offer other explicitly or effectively exclusive promotional payments to claim the best shelf space and keep rivals out.²⁴¹ This includes payments for product displays at the end of an aisle that can rotate monthly or seasonally called end caps. According to Errol Schweizer, a former vice president of grocery for Whole Foods, the retailer charged anywhere from \$10,000 to \$100,000 per brand per month for end cap space. Temporary off-shelf promotional displays also cost tens of thousands of dollars, according to two interviewees. Beyond their prohibitive cost to access, retailers and brands can enter into exclusive arrangements such that promotional displays and end caps do not include rival products.²⁴² These exclusionary promotions make a big difference for brand growth. Zach DeAngelo, founder of Rodeo CPG consultants, said that “only well-financed companies are able to [buy end caps and off-shelf promotions] and that creates strong velocity, which creates more cash flow which creates more brand awareness ... from that perspective it [becomes] really hard for new brands to get a fair shake on shelf.”²⁴³

Producers Use Category Captain Agreements to Exclude

Larger producers also offer retailers free services, such as market research and category management, that smaller producers struggle to provide, limiting new upstarts’ entry and giving

²³⁷ Henry Interview.

²³⁸ DeAngelo Interview.

²³⁹ Nathan Layne, *Wal-Mart to Impose Charges on Suppliers As Its Costs Mount*, Reuters, June 23, 2015, <https://www.reuters.com/article/us-wal-mart-stores-suppliers-idUSKBN0P400K20150624>.

²⁴⁰ “High-low” refers to grocers that rely more on pricing changes, promotions, and periodic discounting rather than consistent lower pricing (called “everyday low price”); DeAngelo Interview; Crain Interview; Roy Interview; Schweizer Interview.

²⁴¹ DeAngelo Interview. (“I know that big CPGs pay huge amounts of money to almost guarantee the best shelf space, so Doritos will have six feet of space across two aisles all the time, because they pay \$1 million to the grocery stores for that space.”).

²⁴² See Kevin M. Murphy & Benjamin Klein, *Exclusive Dealing Intensifies Competition for Distribution*, 75 ANTITRUST L.J., 433, 434 (2008).

²⁴³ The importance of prime or default placements arise in other industries as well. The US and European Commission have challenged Google’s use of defaults in iPhones and Android mobile devices in part on the understanding that users tend to stick with defaults. The same could be said about shoppers’ tendency to buy the most visible and accessible products. Complaint at 3, *United States v. Google*, 20-cv-03010; European Commission Press Release, *Antitrust: Commission Fines Google €4.34 Billion for Illegal Practices Regarding Android Mobile Devices to Strengthen Dominance of Google’s Search Engine* (July 18, 2018).

larger producers a competitive advantage. For certain categories, retailers will designate one producer as the “category captain” in exchange for marketing insights, performance metrics, and shelf layout advice.

These arrangements can also include exclusivity provisions. Diane Roy, who co-founded the consultancy Go Ventures and previously worked for Heinz, Nestle, and PepsiCo (which owns Frito Lay), told us that “[Frito Lay] had agreements that [in exchange for] being category managers and running the category for them and ... all the trade spend ... we always had to have at least 75% of the shelf across all Albertson’s.” Roy noted that this exclusive category captain agreement was more informal, saying “retailers typically do not sign contracts, they will have agreements but they’re very risk adverse ... they don’t want anything in writing.”

Additionally, Roy said the market insights Frito Lay provided were biased towards their products. “There was always a way to make the data show that somehow it was in your favor because you’re getting paid to do that because you work for Frito Lay you don’t work for the retailer,” she said. “I could spin the data to keep someone out and these little guys ... they don’t even know what’s happening ... the big guys are trained to keep the competition out.”

Given these data biases, category captain arrangements do not need to be explicitly exclusive to have an exclusionary effect. Schweizer, DeAngelo, and Jamet concurred that category captains offer data that favors the captain’s products, claims a large portion of the category for that vendor, and improves their sales. This creates a positive feedback loop of favorable sales data for retailers to justify giving category captains more shelf space, promotions, and prime placement in the future.²⁴⁴

When category captains leave limited open shelf space for new entrants this can also increase retailers’ market power over startups to charge additional slotting fees. Interviewees referred to this abuse of market power as “money grabbing,” “grift”, and a “toll.” After taking shelving advice from category captains retailers “have maybe three shelves of space for a new brand and [they] take meetings with probably 50 to 100 brands that want that space, all ready to pay slotting and promotions ... because you have so much competition in any given category to get that space among all the small brands, you know that if you don’t take that offer ... someone else will,” Jamet said.

It is difficult to assess how common explicitly exclusionary promotional payments, slotting fees, or category captain arrangements are. Our interviews and past research confirm that vendors and retailers strike agreements in which vendors pay fees or offer services in exchange for a guaranteed portion of shelf space or the exclusion of a rival. The instances we identified were only requested by very large and dominant brands. In 2003 the Federal Trade Commission found only one of seven retailers surveyed admitted to striking an exclusive agreement with a supplier to guarantee them approximately 50% of the shelf space for one product, though the agency

²⁴⁴ Schweizer Interview (“It’s tautology. If Oreo had that end cap last year ... and they sold really well, why would the retailer want to take their end cap away and give it to Country Choice who is an unproven organic product?”).

cautioned against “extrapolat[ing] our findings to the entire grocery industry.”²⁴⁵ Roy also indicated that exclusive arrangements between vendors and retailers may be reached informally.

Nonetheless, our research suggests that promotional payments and category captain arrangements can have exclusionary effects absent an explicit agreement by using favorable data or high fees to secure a large portion of prime shelf space for dominant vendors offering these payments and services. Such exclusion may be widespread as more retailers become reliant on promotional and slotting fees as a revenue stream. Four interviewees said that some retailers are more reliant on these fees than others. “The major change to the business model now is [retailers see] that those fees are a good, fixed revenue stream,” Schweizer said. “The problem is that these different types of retailer revenue generating programs ... hurt the competition because it makes it really hard for smaller brands to compete with the incumbents,” he added.

Put together, category captains, costly promotions, and slotting make it harder for new brands to compete with dominant food companies in the store and raise barriers to entry into retail markets. These harms are magnified when payments or category captain agreements are explicitly or *de facto* exclusionary. “The slotting, the ad fees, the high-lows, the promotions, it really limits the ability for small startups to compete in almost every level, at any retailer,” Roy said. “The system is geared to support the big companies. They’re the ones that can afford the slotting, they have the clout to get into retailers’ [warehouses], and they have the clout to make sure their product stays on the shelves.”

Exclusionary or Volume-Based Rebates

In the grocery and food service sectors, food manufacturers and distributors sometimes offer buyers cash back or rebate incentives to buy their products. Vendor and distributor rebates can be explicitly or effectively exclusionary when buyers need to reach a very high sales volume to obtain the rebate, ensuring retailers purchase most of their goods from one vendor. Rebates can also be exclusionary when offered in exchange for a guaranteed portion of all purchases, for example, if a yogurt vendor offered 15% cash back on all sales if a retailer agreed to buy 90% of their yogurt from them. In these cases, retailers face an implicit price penalty for buying rivals’ products and missing rebate targets.

As grocery stores and food service outlets become more dependent on rebate revenues, they have a greater incentive to guarantee a growing share of their shelf space or purchasing to the largest and most powerful vendors that offer rebates. This puts an effective cap on the portion of shelves or funds that go to new or community-based vendors that cannot afford to offer high rebates.

In grocery, for example, Roy said rebate programs were “pretty prevalent amongst big brands, not amongst small brands,” and some rebates were “tier-based,” meaning retailers unlocked larger rebates as they hit increasing sales targets. Karina Crain, a former marketing manager at

²⁴⁵ Fed. Trade Comm’n, *supra* note 27, 8.

Giant Eagle, remembered one rebate program with Frito Lay that generated \$1 million for reaching a certain sales goal by the end of the year.

Volume-based rebates are even more fundamental to an often overlooked but important part of the food retail sector: food service management. Increasingly colleges and universities, business headquarters, and cultural venues hire management companies to run their food services. This industry is quite concentrated – in 2019 the top three companies, Compass Group, Sodexo, and Aramark, controlled 77.5% of the food service management industry according to IBISWorld.²⁴⁶

These management companies centralize their purchasing and unless an institution explicitly requests otherwise in their contract, all three leading food service management companies (FSMC) have internal policies requiring their thousands of locations to purchase 80% to 100% of their food from vendors approved by the management company.²⁴⁷ Typically approved vendors offer food service management companies rebates that range from 5% to 50% cash back on sales.²⁴⁸ One 2011 investigation estimated that the average rebate is around 14%.²⁴⁹ By one vendor's account, food businesses that offer higher rebates are more heavily promoted by the FSMCs' buying division.²⁵⁰

FSMCs theoretically could receive rebates from many competing vendors, but because FSMCs negotiate larger rebates by promising vendors high purchasing volumes the FSMCs have an incentive to limit the number of approved vendors.²⁵¹ The fewer competing vendors an FSMC enrolls in any given category, the more *de facto* exclusive these purchasing policies are. “To the extent some food item, for example chicken, can be purchased from one source, instead of from myriad local sources, this is more desirable for the food service company which will thereby maximize a rebate payment,” said New York assistant attorney general, John Carrol, in a 2011 Senate hearing.

According to an investigation by Carrol for the New York State Attorney General's office, income from vendor rebates has become an increasingly important revenue stream for food

²⁴⁶ IBISWorld, “Food Service Contractors Industry in the US - Market Research Report,”

<https://www.ibisworld.com/united-states/market-research-reports/food-service-contractors-industry/>.

²⁴⁷ Claire Fitch & Raychel Santo, *Instituting Change: An Overview of Institutional Food Procurement and Recommendations for Improvement*, Johns Hopkins Ctr. For a Livable Future, Feb. 2016, 24,

<https://clf.jhsph.edu/publications/instituting-change-overview-institutional-food-procurement-and-recommendations>

²⁴⁸ *Food Service Management Contracts: Are Contractors Overcharging the Government?: Hearing Before H. Comm. Homeland Sec.*, 112th Cong. (2011) (statement of John F. Carroll, Asst. Att’y Gen. of New York).

²⁴⁹ Apoliona-Brown et al., *supra* note 10, at 9; Lucy Komisar, *How the Food Industry Eats Your Kid's Lunch*, N.Y. TIMES, Dec. 3, 2011, <https://www.nytimes.com/2011/12/04/opinion/sunday/school-lunches-and-the-food-industry.html>.

²⁵⁰ Apoliona-Brown et al., *supra* note 10, at 17.

²⁵¹ See Fitch & Santo, *supra* note 49; Jennifer Obadia, John Stoddard & Emily Edmonds, *Setting the Table For Success: A Toolkit for Increasing Local Food Purchasing by Institutional Food Service Management*, Farm to Institution New England, <https://www.farmtoinstitution.org/food-service-toolkit>.

service management companies since the early 2000s.²⁵² “That’s the dirty secret ... more than half the money that Sodexo was making off of Hotchkiss was not actually on the management fee. It was all on spending Hotchkiss’s money on these vendors that would essentially give them kickbacks, which is how most the industry works,” said Andrew Cox, current director of dining services for Smith College and former general dining services manager for Sodexo at the Hotchkiss boarding school. A report by the Real Food Challenge cited another anonymous former FSMC employee who estimated rebate revenue accounts for 40% to 50% of Aramark, Sodexo, and Compass Group’s net profits for their North America operations.²⁵³

Current research and our interviews with three food service chefs or dining managers reveal that food service management companies enforce this exclusionary purchasing by rewarding or penalizing employees based on how much they purchase from “on-contract” or approved vendors.²⁵⁴ All of the chefs and dining managers we spoke to, each of whom had worked for a different one of the three top FSMCs, said that their performance reviews, promotions, and bonuses were based in part on their levels of compliant purchasing.²⁵⁵ “My incentive structure was tied specifically to compliance,” Cox said. Cox compared requirements to “hit your compliance numbers” to “handcuffs.”

These purchasing systems greatly limit chefs’ ability to purchase from local and community-based vendors. “I went to a little college in upstate New York and there was an apple orchard up the road, but even though you could walk there and bring a box of apples back to the campus a food service company would be unlikely to enter into that kind of an arrangement,” Carroll told us. “They would rather buy their apples from a giant agribusiness in California because then the total purchases of apples for all their operations in the United States would be accumulated and they would earn a payment, which in my opinion was a kind of a kickback.”²⁵⁶

The chefs and dining managers we spoke to also experienced this phenomenon. “You know that these small farmers are not going to pay back something to the company, and that’s why the companies make it very difficult to do any business with local vendors,” said one food service management director, who wished to remain anonymous.²⁵⁷

These rebate systems do not necessarily prohibit smaller or local vendors from applying to become approved vendors, but chefs and general managers said it is challenging for local vendors to get approved. FSMCs have little incentive to enroll new vendors that will decrease the

²⁵² Carroll, *supra* note 50 (“... [R]ebates were not a significant revenue source or economic factor prior to 2000. However, from 2002 onward, earnings from rebates have become an increasingly important revenue source for food service companies.”).

²⁵³ Apoliona-Brown et al., *supra* note 10, at 12

²⁵⁴ *Id.* (“Food service companies endeavor to create lists of the companies which site managers buy from, and site managers are evaluated based on compliance, that is, the degree they adhere to purchasing from the company’s list of vendors.”).

²⁵⁵ Aramark Interview; Compass Group Interview; Cox Interview.

²⁵⁶ Carroll Interview.

²⁵⁷ Compass Group Interview.

purchasing volumes they need to maximize rebates with existing vendors. “It is definitely a barrier, I’ve talked to many people ... who have tried to get in the system and failed,” Cox said.

Solutions

Policymakers should translate the values motivating the antitrust laws – fairness, nondomination, and cooperation between small players among them – into clear, bright-line rules of conduct, including rules outlawing exclusive arrangements by dominant firms.²⁵⁸ Looking to address the pernicious consequences of concentrated corporate power, one cannot overlook exclusive arrangements and the potential for administrative agencies and legislation to address them.²⁵⁹

Current law gives exclusive arrangements an effective presumption of legality because they are judged under the rule of reason. The rule of reason standard’s burden-shifting framework and ultimate balancing of consumer welfare effects favors well-heeled corporate defendants.²⁶⁰ For instance, Michael Carrier and Chris Sagers have found that in the 897 antitrust cases decided from 1977 to February 2021, 809, or 90%, failed to show an anticompetitive harm.²⁶¹

The Federal Trade Commission, however, has power to address exclusive arrangements under Section 5 of the FTC Act, which outlaws “unfair methods of competition.”²⁶² In enacting Section 5, Congress sought to give the FTC the power to help define what an unfair method of competition is.²⁶³ The Supreme Court has affirmed that Section 5 of the FTC Act should stop unfair practices in their incipiency and thus covers more than the other provisions of the antitrust law.²⁶⁴ Using its Section 5 rulemaking authority, the FTC could issue a new rule to ban formal and *de facto* exclusive dealing by dominant firms as *per se* illegal, as outlined in the Open

²⁵⁸ See Sanjukta Paul, *Recovering the Moral Economy Foundations of the Sherman Act*, 131 YALE L.J. 175, 180, 250-52 (2021) (interpreting the legislative history of the Sherman Act to reveal a fundamental logic in the statute of dispersing economic coordination rights, operationalized through nondomination, democratic coordination, and fair competition).

²⁵⁹ See Lina M. Khan, *The End of Antitrust History Revisited*, 133 HARV. L. REV. 1655, 1677-81 (2020) (emphasizing the importance of reorienting institutional arrangements in antitrust to democratically-responsive actors and away from courts and recounting the original understanding of the Federal Trade Commission as an administrative agency with a broadly defined mission to address unfair competition by gathering information about markets and updating laws to reflect standards of fairness).

²⁶⁰ See Am. Econ. Liberties Proj., *The Courage to Learn: A Retrospective on Antitrust and Competition Policy During the Obama Administration and Framework for a New, Structuralist Approach*, Jan. 2021, 15-16 (situating the increasing adoption of rule of reason approaches within the recent history of antitrust law).

²⁶¹ Michael A. Carrier & Christopher L. Sagers, *The Alston Case: Why the NCAA Did Not Deserve Antitrust Immunity and Did Not Succeed Under a Rule-of-Reason Analysis*, 28 GEO. MASON L. REV. 1461, 1476, 1476 n.114 (2021).

²⁶² 15 U.S.C. § 45.

²⁶³ Sandeep Vaheesan, *Resurrecting “A Comprehensive Charter of Economic Liberty”*: *The Latent Power of the Federal Trade Commission*, 19 U. PA. J. BUS. L. 645, 656 (2017).

²⁶⁴ *Id.* at 661-3; *Fed. Trade Comm’n v. Brown Shoe Co., Inc.* 384 U.S. 316, 322 (1966) (“[T]he Commission has power under § 5 to arrest trade restraints in their incipiency, without proof that they amount to an outright violation of § 3 of the Clayton Act or other provisions of the antitrust laws.”).

Markets Institute’s petition to the agency.²⁶⁵ Congress or state legislatures could also pass new laws or bolster existing prohibitions on exclusive dealing, preferably with a bright-line rule rather than adjusting the rule of reason standard.²⁶⁶

The U.S. Department of Agriculture also can issue fair competition rules as it pertains to meat producers’ marketing practices under the Packers & Stockyards Act (PSA). The PSA prohibits meatpackers from “giv[ing] any undue or unreasonable preference or advantage to any particular person or locality,” which could be applied to meatpackers’ marketing practices to ban preferential payments to buyers in exchange for exclusivity. Exclusionary rebates and payments could also be seen as a “course of business ... with the effect of manipulating or controlling prices, or of creating a monopoly in the ... selling” of meat.²⁶⁷ The USDA could issue rules making clear that exclusive marketing practices, such as loyalty rebates and exclusionary kickbacks, violate the PSA.

To the extent that the harms of exclusionary payments are a byproduct of coalescing market power between dominant food retailers and dominant suppliers, food retail markets would benefit from restructuring. As the DOJ and FTC update their merger guidelines, we’d recommend stronger structural presumptions and bright-line prohibitions on mergers of a certain size and market share. Antitrust enforcers should also study past CPG or food retail mergers to identify deals to unwind.

Additionally, government procurement officials could enact purchasing policies that discourage exclusionary payments. As purchasers of goods and services, public officials have significant power to mandate disclosures and changes to business practices and could use this leverage to structure markets for fair goals.²⁶⁸ Municipal food purchasing standards could also include provisions requiring institutions to negotiate contracts with food service management companies that privilege community-based vendors above those that FSMCs have national purchasing contracts with.²⁶⁹

Further research and investigations by antitrust enforcers, the Government Accountability Office, or academic institutions could illuminate the prevalence of explicitly exclusionary arrangements in food retail and other steps along the supply chain, such as food distribution (see Appendix).

²⁶⁵ See Exclusive Dealing Petition, 71-81 (articulating three tests for illegality centering on market shares and numbers of significant competitors).

²⁶⁶ See *e.g. id.*

²⁶⁷ 7 U.S.C. § 192(e).

²⁶⁸ For example, several school districts have adopted Good Food Purchasing Programs, setting goals to direct food procurement towards providers that support local economies, environmental sustainability, fair wages, animal welfare, and nutrition.

²⁶⁹ Cox Interview (“Having contract language around purchasing metrics or purchasing vendors or any language that gives you the flexibility to blame the client and save yourself from the wrath of the contractor, it will be a lot more successful than if you decide mid-contract that you like to support the local farm down the road, there’s very little chance you’ll get them approved.”).

Grocery stores, schools, and other social institutions should have healthful, fresh food, provided by a diversity of community-based businesses. Enforcing antitrust law against exclusive arrangements could help secure food retail market access for new, BIPOC-owned, and local food producers and foster more resilient and equitable food supply chains in the process. Other policies that look at capping slotting fees, creating equitable access to capital and land, and diversifying food chain infrastructure would also undoubtedly help grow community-based food providers. But strengthening and policing the use of exclusivity by dominant firms could help open concentrated food retail markets to new competitors.

Appendix: Area for Further Research – Exclusive Distribution Agreements

Our paper did not set out to study exclusionary distribution relationships, however, competition issues and extractive fees in distribution came up as a common theme in our interviews. While businesses can sometimes self-distribute to smaller, independent stores or local institutions, they typically cannot deliver directly to larger grocery and restaurant chains. The largest retailers manage much of their own distribution and prioritize stocking fast-moving items. This makes carving out a space in internal distribution centers for an unproven brand risky and expensive.²⁷⁰ As such, interviewees said that new brands typically strike agreements with third-party distribution companies to get into more mid- to large-sized grocery store networks. Just two distributors, KeHE and United Natural Foods (UNFI), dominate the “specialty” or “natural organic” channel.²⁷¹

Five interviewees said stores typically have a “primary” or “preferred” distributor, which retailers direct new brands to work with. “Typically ... you don’t have a lot of choices, it’s either you use distributor A or if you don’t want to ... [the retailer] just can’t put your items on shelf,” Jamet said. “[Retailers] probably have negotiated a contract based on the volume of total dollars and that’s how they’re able to get a better margin” working with their primary distributor, Jamet added.

Primary distribution agreements also exist in food service, where Sysco and US Foods lead the market. Similar to food manufacturers, these distributors also offer their food service clients exclusionary volume-based rebates to induce sales or primary distribution relationships. For instance, one former master contract between Aramark and Sysco revealed Sysco provided a “produce incentive allowance” or rebate on all produce that Aramark purchased through Sysco.²⁷²

²⁷⁰ Crain Interview. (“Why would [a retailer] waste a whole warehouse slot, like a whole pallet space, just for a new brand that they don’t know how it’s going to turn. They want proven items in the warehouse that can make their warehouses more efficient. In order to reduce risk, they use KeHE or UNFI ... to manage that [new brand] inventory for them.”).

²⁷¹ DeAngelo Interview (“Distributors are particularly predatory, that’s as close to a monopoly as we have ... UNFI and KeHE.”).

²⁷² Master Distribution Agreement between Sysco Co. and Aramark Food and Support Services Grp. Inc. (2011), in SEC Archives, <https://www.sec.gov/Archives/edgar/data/7032/000119312511137265/dex101.htm>

More research is necessary to understand primary distribution arrangements and the degree to which they are exclusionary. Based on our interviews, primary distribution relationships appear to limit competition for distribution and give distributors more market power to extract fines, further raising barriers to entry. They may also increase retailers' market power over distributors, pressuring them to lower distribution fees below their cost of doing business and rely on fees charged to brands to eke out a thin profit margin.²⁷³ Jamet, Schweizer, and DeAngelo shared several anecdotes of poor service and deceptive fees from distributors, from charging fees to the wrong company to requiring startups to buy into sales programs that they did not want. "It never ends with those entities, I can give you 75 examples of them skimming and making it really difficult [for small brands]," DeAngelo said.

²⁷³ Jamet Interview ("It's kind of a squeeze game. A lot of the distributors because they are getting squeezed by the retailers to give them the best prices possible, they don't make enough margin by actually distributing their products, so they go back to the brands and try to sell the brands on a lot of different programs ... they tell you 'this is our policy, it's non-negotiable.'").

SATURDAY MARCH 12th 2022
REFORMING
AMERICA'S FOOD RETAIL MARKETS



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Panel 3: Legal Issues



Anti-Grocery Covenants

Christopher R. Leslie

Supermarkets are disappearing across America, leaving behind food deserts.²⁷⁴ Numbered at over 6,500,²⁷⁵ food deserts exist in every region of the country.²⁷⁶ Studies estimate that between 23 million and 30 million Americans live in food deserts.²⁷⁷ Food deserts are generally defined by lack of access to supermarkets or other large full-service grocery stores.²⁷⁸ The most common definitions include distance and income variables. For urban areas, for example, the USDA defines a low-income area as a food desert if at least one third of the residents live more than one mile from the nearest supermarket.²⁷⁹

Supermarkets are critical for getting affordable food to most consumers. Because of their economies of scale and scope, as well as their buying power with respect to wholesalers and distributors, supermarket chains can offer lower prices. In contrast, when independent grocers exist to serve urban consumers, these stores often charge prices that are 10–60% higher than chain supermarkets.²⁸⁰ Convenience stores – with their limited selection of fresh produce – charge even more.²⁸¹ This absence of supermarket chain stores significantly raises the grocery

²⁷⁴ Samina Raja, Changxing Ma, & Pavan Yadav, *Beyond Food Deserts: Measuring and Mapping Racial Disparities in Neighborhood Food Environments*, 27 J. PLANNING EDUC. & RESEARCH 469, 470 (2008) (“In cities across the country, for example, the number of supermarkets—an important food retail destination—is declining.”); Samantha Masunaga, *Fresh & Easy Closing 30 Stores in Southern California*, L.A. TIMES (Mar. 23, 2015), <http://www.latimes.com/business/la-fi-fresh-and-easy-20150323-story.html>.

²⁷⁵ Paula Dutko, Michele Ver Ploeg & Tracey Farrigan, *Characteristics and Influential Factors of Food Deserts* 1 (2012), available at https://www.ers.usda.gov/webdocs/publications/45014/30940_err140.pdf at iii.

²⁷⁶ Christopher R. Leslie, *Food Deserts, Racism, and Antitrust Law*, 111 CALIF. L. REV. __ (forthcoming 2022) (“Researchers have identified food deserts in many, if not most, major American cities, from New England to the West Coast and from the upper Midwest to the South.”).

²⁷⁷ USDA, ACCESS TO AFFORDABLE AND NUTRITIOUS FOOD 35 (2009), available at <https://www.ers.usda.gov/publications/pub-details/?pubid=42729>; Emily M. Broad Leib, *All (Food) Politics Is Local: Increasing Food Access Through Local Government Action*, 7 HARV. L. & POL’Y REV. 321, 324 (2013) (“According to recent data, 9.7% of the U.S. population, or 29.7 million people, live in food deserts.”) (citing Michele Ver Ploeg et al., U.S. Dep’t of Agric., Economic Research Report No. 143, Access to Affordable and Nutritious Food: Updated Estimates of Distance to Supermarkets Using 2010 Data, at iii (2012), available at <http://www.ers.usda.gov/media/956784/err143.pdf>).

²⁷⁸ Junfeng Jiao et al., *How to Identify Food Deserts*, 102 AM. J. PUB. HEALTH e32 (2012) (“Because supermarkets generally offer a variety of healthy foods at reasonable cost, food access is defined by proximity to a supermarket or large grocery store.”); Teresa A. Hubley, *Assessing The Proximity of Healthy Food Options and Food Deserts in a Rural Area in Maine*, 31 APPLIED GEOGRAPHY 1224–1231 (2011) (defining food deserts as “a populated area with deficient access to the most well-stocked outlets, the large stores or supermarkets that usually provide abundant, good quality, low-priced food choices.”).

²⁷⁹ Marie Steele-Adjognon & Dave D. Weatherspoon, *A Theoretical Approach to Supermarket Chain Investment in Urban Food Deserts*, Michigan State University Working Paper 2 n.1 (2017).

²⁸⁰ E. Eisenhauer, *In Poor Health: Supermarket Redlining And Urban Nutrition*, GEOJOURNAL 125, 130 (2001).

²⁸¹ Andrea Freeman, *Fast Food: Oppression Through Poor Nutrition*, 95 CALIF. L. REV. 2221, 2254 (2007) (noting that the prices in West Oakland convenience stores “are fifty to 100 percent higher than prices for identical items sold in grocery stores”)

bills for households in poor neighborhoods,²⁸² especially for healthy food.²⁸³ The poorest people pay the highest prices,²⁸⁴ which makes it even harder for them to eat a healthy mix of fresh fruit and vegetables.²⁸⁵ Ultimately, due to the lack of supermarkets in their neighborhoods, the poor in America pay more money for less nutritious food.²⁸⁶

Why is it that some neighborhoods have supermarkets while others don't? An economist might say it's because of "market forces." But that's not always accurate. At the dawn of the suburban era, many supermarkets closed their downtown storefronts and relocated to the suburbs.²⁸⁷ If market forces had been allowed to play out, new supermarkets would have moved into the abandoned locations. But it didn't happen in many communities. This exodus without replacement left "many inner-city neighborhoods with few or no full-service markets—often for decades."²⁸⁸ Why didn't market forces work?

²⁸² Chanjin Chung & Samuel Myers, *Do the Poor Pay More for Food? An Analysis of Grocery Store Availability and Food Price Disparities*, 33 J. CONSUMER AFF. 276, 276 (1999); Lisa Powell, et al., *Food Store Availability and Neighborhood Characteristics in the United States*, 44 PREVENTIVE MEDICINE 189, 193 (2007).

²⁸³ Linlin Fan, et al., *Does A Nutritious Diet Cost More in Food Deserts?* 49 AGRICULTURAL ECON. 587 (2018); Mengyao Zhang & Debarchana Ghos, *Spatial Supermarket Redlining and Neighborhood Vulnerability: A Case Study of Hartford, Connecticut*, 20 TRANSACTIONS IN GIS 79 (2016) ("In terms of prices, majority of research showed that the poor had to pay more for healthy foods.").

²⁸⁴ Leslie, *supra* note 276 ("Paradoxically, consumers with less money face higher prices, which reduce their purchasing power even further.").

²⁸⁵ Jada Fehn, *Swamped: How Local Governments Can Improve Health by Balancing Exposure to Fat, Sugar, and Salt-Laden Fringe Foods*, 24 J. AFFORDABLE HOUSING & COMMUNITY DEV. L. 565, 573 (2016); Karen M. Jetter & Diana L. Cassady, *The Availability and Cost of Healthier Food Alternatives*, 30 AM. J. PREVENTIVE MED. 38, 43 (2005).

²⁸⁶ Chung & Myers, *supra* note 282 at 277 ("A 1995 study of Detroit area grocers found that city shoppers paid higher prices for a less nutritious choice of foods than suburban shoppers because of a lack of large supermarkets in low-income neighborhoods."); Shannon Zenk, et al., *Neighborhood Racial Composition, Neighborhood Poverty, and the Spatial Accessibility of Supermarkets in Metropolitan Detroit*, 95 AM. J. OF PUBLIC HEALTH 660, 663 (2005) ("Inadequate accessibility to supermarkets may contribute to less-nutritious diets and hence to greater risk for chronic, diet-related diseases."). *See also* Hubley, *supra* note 278 at 1224–1231 ("Supermarkets are considered desirable because they can, through economies of scale, provide lower prices and greater variety, thus mitigating some of the common factors that may prevent consumers from making healthy food choices.").

²⁸⁷ *Davidson Bros. v. D. Katz & Sons, Inc.*, 274 N.J. Super. 159, 166, 643 A.2d 642, 646 (App. Div. 1994) ("90 percent of the conventional grocery stores, located in low-income neighborhoods, [that] either closed voluntarily or went out of business, did so to relocate into the suburbs.") (quoting House Select Comm. on Hunger, 100th Cong., 1st Sess., *Obtaining Food: Shopping Constraints on the Poor* (Comm. Print 1987)); Eisenhauer, *supra* note 280 at 127 ("As (white) middle class families began leaving the cities, the growing stores followed."); New York Law School Racial Justice Project, *UNSHARED BOUNTY: HOW STRUCTURAL RACISM CONTRIBUTES TO THE CREATION AND PERSISTENCE OF FOOD DESERTS* 6 (2012) ("Supermarkets, along with many other types of businesses, followed white middle-class incomes to the suburbs.").

²⁸⁸ JUDITH BELL ET AL., POLICY LINK & THE FOOD TRUST, *ACCESS TO HEALTHY FOOD AND WHY IT MATTERS: A REVIEW OF THE RESEARCH* 6 (2013) ("Beginning in the 1960s and 1970s, white, middle-class and working-class families left urban centers for homes in the suburbs, and supermarket chains went with them, leaving many inner-city neighborhoods with few or no full-service markets—often for decades.").

Of Covenants and Supermarkets

Supermarkets require a large footprint, both inside and out. The indoors must be able to accommodate several distinct departments and have sufficiently wide aisles connecting all the various departments. Outside, in addition to any parking lot for customers, a large supermarket requires significant space for unloading delivery trucks.²⁸⁹ The dearth of appropriate space is one of the greatest barriers to opening a supermarket in an inner-city neighborhood.²⁹⁰

The most obvious site for a new supermarket is the old digs of the supermarket that left. But this location is often legally foreclosed, for reasons having nothing to do with market forces or efficiency. When supermarket chains – and sometimes smaller grocers – sell their old stores, they will frequently add a covenant to the property that precludes the site from being used to sell food for a period of years or decades.²⁹¹ Such covenants are common.²⁹² Walmart alone has imposed them on hundreds of its former sites.²⁹³

These anti-grocery covenants can help create or prolong food deserts.²⁹⁴ For example, a supermarket operator in New Brunswick, New Jersey transformed the city’s downtown into a food desert by closing its downtown location and imposing a forty-year anti-grocery covenant despite the fact that most residents did not have cars and there was no supermarket in walking distance after the operator closed its store and blocked the land from being used to sell food.²⁹⁵ Similarly, supermarket spaces have sat empty in some of Chicago’s low-income neighborhoods because anti-grocery covenants have prevented other food vendors from revitalizing old

²⁸⁹ Steele-Adjognon & Weatherspoon, *supra* note 279 at 3.

²⁹⁰ Kameshwari Pothukuchi, *Attracting Supermarkets to Inner-City Neighborhoods: Economic Development Outside the Box*, 19 *ECON. DEV. Q.*, 232, 234 (2005) (noting that appropriate sites for supermarkets within cities are scarce); UNSHARED BOUNTY, *supra* note 287 at 22 (“Land areas required for supermarkets were often unavailable in the city.”). *See also id.* (“The land demands supermarkets have evolved to require are difficult to accommodate within cities. Piecing together parcels of land, sometimes controlled by multiple entities, for a supermarket project within a city can be time consuming and prohibitively expensive.”).

²⁹¹ Adele Peters, *How Closing Grocery Stores Perpetuate Food Deserts Long After They’re Gone*, *FAST COMPANY* Nov. 27, 2017, available at <https://www.fastcompany.com/40499246/how-closing-grocery-stores-perpetuate-food-deserts-long-after-theyre-gone> (“The restrictions are likely more damaging in certain neighborhoods, such as urban areas that are highly developed and don’t have space to build new stores.”). Alternatively, supermarkets that have long-term leases will sometimes put a restrictive-use covenant in its subleases, thus preventing the new tenant from selling groceries.

²⁹² Paul A. Diller, *Combating Obesity with A Right to Nutrition*, 101 *GEO. L.J.* 969, 1002 (2013) (noting that “supermarkets frequently use anticompetitive deed restrictions when selling property”); Peters, *supra* note 291 (“similar deed restrictions are used across the grocery industry”).

²⁹³ Jeremy Bowman, *Where Have All The Inner-City Grocery Stores Gone?* *THE MOTLEY FOOL*, Apr. 4, 2012, available at <https://www.businessinsider.com/where-have-all-the-inner-city-grocery-stores-gone-2012-4> (noting that as of 2010, Walmart had written these restrictive covenants to cover 250 of its former stores).

²⁹⁴ Bruce Ziff & Ken Jiang, *Scorched Earth: The Use of Restrictive Covenants to Stifle Competition*, 30 *WINDSOR YEARBOOK ON ACCESS TO JUSTICE* 79, 81 (2012) (“The presence of a covenant preventing an otherwise ideal site from being used as a grocery store can contribute to the emergence or continuation of a food desert.”).

²⁹⁵ *Davidson Bros. v. D. Katz & Sons, Inc.*, 643 A.2d 642, 645 (N.J. App. 1994) (“The problem was especially difficult for female heads of household who used to send their children to the store or have their children accompany them.”).

supermarket locations.²⁹⁶ More recently, when Safeway closed its Greeley, Colorado location in 2014, it sold the property burdened by a 20-year anti-grocery covenant that left the 33,000 residents of the city’s downtown neighborhood without a grocery store.²⁹⁷

Supermarkets employ these scorched-earth covenants to force customers of the former stores to drive to the supermarket chain’s other stores, such as those in the suburbs.²⁹⁸ The supermarket chain can maximize its profits by blocking any new grocer from using the chain’s old storefront to sell food. Those former customers with cars will endure the hassle of driving for groceries. But those residents who have neither cars nor public transportation cannot get to another supermarket.²⁹⁹ Those left behind are hostages of a food desert, denied access to affordable healthy food and often living with chronic food insecurity.³⁰⁰

The inability to locate and afford healthy fare leads to daily diets that are short on nutrients and long on sugar, salt, and fat.³⁰¹ When consumers’ options are limited to fast-food establishments, convenience stores, or distant supermarkets, their environment dictates unhealthy choices. Diets based on fast food are destined for increased obesity. And the selections at convenience stores are often no better; with few, if any, healthy options available, people who rely on convenience stores for food face a higher propensity for obesity.³⁰² When the closest supermarket is far away, any visit results in consumers stocking up on canned goods and processed foods that have relatively long shelf lives.³⁰³ If a trip to the supermarket is an occasional luxury, consumers cannot habitually purchase fresh produce that will spoil.³⁰⁴

²⁹⁶ Johnathon E. Briggs, *Supermarkets Sit Empty as Deeds Block New Grocers*, CHICAGO TRIBUNE (May 2, 2005), available at http://articles.chicagotribune.com/2005-05-02/news/0505020153_1_grocery-restrictive-covenants-dominick.

²⁹⁷ Peter Balonon-Rosen, *When grocery stores close, this legal phrase can prevent new ones from opening*, MARKETPLACE, Jan 12, 2018, available at <https://www.marketplace.org/2018/01/12/when-grocery-stores-close-little-legal-phrase-can-prevent-new-ones-opening/>; Steve Holt, *How leaving stores closed for years helps grocery chains and hurts communities*, THE WORLD, January 29, 2018, available at <https://www.pri.org/stories/2018-01-29/how-leaving-stores-closed-years-helps-grocery-chains-and-hurts-communities> (“For instance, the 2014 closing of a Safeway in downtown Greeley, Colorado, left an estimated 33,000 residents without a convenient supermarket ...”).

²⁹⁸ Peters, *supra* note 291 (“The restrictions are typically put in place when a grocery store that owns a particular property decides to sell it, but wants to limit competition—perhaps pushing customers to shop at another branch of its own chain farther away.”); Leslie, *supra* note 276 (coining the phrase “scorched-earth covenant” for these covenants that forbid the selling of food from certain locations).

²⁹⁹ USDA, *supra* note 277 at 35.

³⁰⁰ Zhang & Ghos, *supra* note 283 (“Typically residents living in a food desert with limited access to healthy food experience issues of food insecurity but the impact is disproportionately higher among vulnerable populations due to lower socioeconomic status, ethnic minority status, old age, and existing negative health outcomes.”).

³⁰¹ UNSHARED BOUNTY, *supra* note 287 at 6; Hubley, *supra* note 278 at 1224–1231 (“Low access to supermarkets in the United States has been linked with poor quality diets.”); Deja Hendrickson, Chery Smith & Nicole Eikenberry, *Fruit and Vegetable Access in Four Low-Income Food Deserts Communities in Minnesota*, 23 AGRICULTURE AND HUMAN VALUES 371 (2006).

³⁰² J.N. Bodor, et al., *The Association between Obesity and Urban Food Environment*, 87 J. URB. HEALTH 771 (2010).

³⁰³ Rebecca Lee, *Quenching Food Deserts: Rethinking Welfare Benefits to Combat Obesity*, 25 S. CAL. REV. L. & SOC. JUST. 241, 242–43 (2016).

³⁰⁴ *Id.*

Proximity to supermarkets is a key factor for determining obesity, as “people living in areas with access to a supermarket exhibit a twenty-four percent lower prevalence of obesity than those living in areas without supermarkets.”³⁰⁵

In all three of these scenarios, residents of food deserts wind up with diets with too much salt and sugar, too many calories, and too little nutritional value.³⁰⁶ The inevitable result is higher rates of heart disease, hypertension, and diabetes for people who live in food deserts.³⁰⁷ This, in turn, leads to a lower quality of life and higher rate of premature death.³⁰⁸

Policy Implications of Anti-Grocery Covenants

The policy solution is straightforward: anti-grocery covenants imposed by exiting supermarkets and grocers should be unenforceable as a matter of law. Such a change could be done by judicial ruling or legislative action.

Courts already have the authority to block the enforcement of anti-grocery covenants, and at least a few have done so.³⁰⁹ But these have been individual cases invalidating individual covenants. A judicial response that requires investigating anti-grocery covenants one at a time is inefficient and too drawn-out. Because anti-grocery covenants that prevent grocery stores from operating in certain neighborhoods are inherently unreasonable, these covenants should be unenforceable as a matter of law. A sweeping judicial rule against anti-grocery covenants would go a long way toward ridding supermarket-ready land from these restrictions that perpetuate food deserts. But judges tend to be cautious – more evolutionary than revolutionary.

By legislative action, cities and states can ban anti-grocery covenants.³¹⁰ To date, however, few have done so. This is not surprising. Large grocery store chains hold

³⁰⁵ Emily M. Broad Leib, *All (Food) Politics Is Local: Increasing Food Access Through Local Government Action*, 7 HARV. L. & POL’Y REV. 321, 322 (2013); Rebecca Woodruff, et al., *Comparing Food Desert Residents With Non-Food Desert Residents On Grocery Shopping Behaviours, Diet And BMI: Results From A Propensity Score Analysis*, 23 PUB. HEALTH NUTRITION 806 (2020) (residents of food deserts have significantly higher body-mass index).

³⁰⁶ *Id.* at 243.

³⁰⁷ UNSHARED BOUNTY, *supra* note 287 at 6; USDA, *supra* note 277 at 6.

³⁰⁸ Mari Gallagher Research and Consulting Group, *Good Food: Examining the Impact of Food Deserts on Public Health in Chicago* 7, July 18, 2006, at 9, available at http://www.marigallagher.com/site_media/dynamic/project_files/1_ChicagoFoodDesertReport-Full_.pdf (“communities that have no or distant grocery stores, or have an imbalance of healthy food options, will likely have increased premature death and chronic health conditions, holding other influences constant.”).

³⁰⁹ *See, e.g., Max’s Place, LLC v. DJS Realty, LLC*, 1 A.3d 1199, 1201 (Conn. App. 2010) (invalidating restrictive covenant in land conveyance that precluded land from being used “for the operation of a grocery store, supermarket or other business selling food for off-premises consumption”); *Davidson Bros. v. D. Katz & Sons, Inc.*, 643 A.2d 642, 645 (N.J. App. 1994) (invalidating supermarket’s anti-grocery covenant, citing expert’s testimony that “the absence of a supermarket in a low income city neighborhood makes food more expensive and has a negative impact on diet and, therefore, on the inner city population’s health.”).

³¹⁰ Peters, *supra* note 291 (“Some cities, such as Chicago and Madison, Wisconsin, have ordinances that ban this type of restrictive covenant.”). *See, e.g., D.C. Code Ann. § 2-1212.61* (West) (“It shall be unlawful for the owner or operator of a grocery store or a food retail store to agree to the inclusion of a restrictive land covenant ... that prohibits the use of the real property as a grocery store...”). *See also Holt, supra* note 297 (discussing DC’s efforts to proscribe supermarket restrictive covenants).

disproportionate power over at city councils and can threaten to leave a jurisdiction and simply leave their former grocery store location empty.³¹¹ Given the economic and political power of supermarket chains, state and local responses alone are likely to prove insufficient.

It makes much more sense to have a nationwide policy against the enforcement of anti-grocery covenants. In theory, a federal agency – such as the Federal Trade Commission – could employ its rule-making authority to promulgate a nationwide prohibition on the enforcement of anti-grocery covenants.³¹² This would be the single most effective way to prevent the artificial barrier to supermarkets opening in food deserts. This would eliminate the need for city-by-city legislative battles.

As a matter of public policy, focusing on ways to reintroduce supermarkets to urban centers is an appropriate mechanism for achieving the ultimate goal of improving access to affordable healthy food in food deserts. Compared to convenience stores and small independent grocers, supermarkets generally offer higher quality food at lower prices.³¹³ Large supermarkets can also create competitive dynamic that causes smaller grocery stores to offer healthier options at lower prices.³¹⁴ Both of these outcomes increase the ability of low-income households to afford healthy food that is currently inaccessible in too many food deserts.

Although some people may argue that increasing the supply of healthy food will prove inconsequential because demand is lacking,³¹⁵ significant research shows that supply can help drive demand. Consumers cannot make healthy choices if healthy options are not available.³¹⁶ Access to supermarkets facilitates these healthy choices. Indeed, “[l]iving closer to healthy food

³¹¹ Leslie, *supra* note 276 (discussing going dark strategy used by supermarkets to prevent their former locations from being used to sell food).

³¹² 15 U.S.C. §45. See generally Rohit Chopra & Lina M. Khan, *The Case for “Unfair Methods of Competition” Rulemaking*, 87 U. CHI. L. REV. 357 (2020).

³¹³ Story et al., *supra* note 276 at 259 (“The lack of availability of large supermarkets is of concern because large supermarkets tend to offer food at lower prices and provide a wider variety of and higher-quality food products than do small grocery stores.”).

³¹⁴ Denver D’Rozario & Jerome D. Williams, *Retail Redlining: Definition, Theory, Typology, and Measurement*, 25 J. MACROMARKETING 175, 176 (2005) (“The presence of a chain grocery store (even better, a large chain grocery store) in a low-income neighborhood typically has dramatic effects on the prices and quality of goods and services offered at other grocery stores in these neighborhoods.”) (discussing findings of Judith Bell & Bonnie Maria Burlin, *In Urban Areas: Many More Still Pay More for Food*, 12 J. PUB. POLICY & MARKETING 268 (1993)); Tom Larson, *Why There Will Be No Chain Supermarkets In Poor Inner-City Neighborhoods*, 7 CALIF. POLITICS & POLICY 22, 34 (2003) (“Because the chain stores are likely more attractive to customers (larger, more variety, more convenient, larger sizes), independents are forced to offer competitive prices, even if profits are lower.”).

³¹⁵ Nathan A. Rosenberg & Nevin Cohen, *Let Them Eat Kale: The Misplaced Narrative of Food Access*, 45 FORDHAM URB. L.J. 1091, 1092 (2018); Scott W. Allard et al., *Neighborhood Food Infrastructure and Food Security in Metropolitan Detroit*, 51 J. CONSUMER AFF. 566, 566 (2017); Madhumita Ghosh-Dastidar et al., *Does Opening a Supermarket in a Food Desert Change the Food Environment?*, 46 HEALTH & PLACE 249, 250 (2017); Deborah N. Archer & Tamara C. Belinfanti, *We Built It and They Did Not Come: Using New Governance Theory in the Fight for Food Justice in Low-Income Communities of Color*, 15 SEATTLE J. FOR SOC. JUST. 307, 313 (2016); Steve Cummins, Ellen Flint & Stephen A. Matthews, *New Neighborhood Grocery Store Increased Awareness of Food Access but Did Not Alter Dietary Habits or Obesity*, 33 HEALTH AFF. 283, 283 (2016).

³¹⁶ See *id.* at 4 (“Bringing grocery stores to low-income underserved areas creates a healthier food environment that supports making healthier choices.”); Story et al., *supra* note 276 at 259 (“The presence of food stores, and the availability of healthful products in those stores, are important contributors to healthy eating patterns among neighborhood residents.”).

retail is among the factors associated with better eating habits and decreased risk for obesity and diet-related diseases.”³¹⁷ Consequently, people with access to supermarkets enjoy healthier diets and lower rates of nutrition-related diseases.³¹⁸

The invalidation of anti-grocery covenants should increase the number of supermarkets. There is sufficient demand for the products and services for inner-city supermarkets to be profitable even in relatively low-income neighborhoods.³¹⁹ Ultimately, supply and demand work together, such that increasing the supply of healthy food in urban centers can operate to increase demand, creating a virtuous cycle of healthy eating.³²⁰

Merely invalidating anti-grocery covenants does not automatically solve the problem of food deserts. In addition to banning anti-grocery covenants, policymakers should also deploy tax incentives and loan programs to encourage supermarkets to serve the residents of food deserts.³²¹ Such programs are valuable but ultimately fruitless if the most suitable land and locations are bottled up by anti-grocery covenants. Of course, in addition to supermarkets, local planners and officials should seek ways to encourage other sellers of healthy food, including farmers markets,³²² neighborhood corner grocers, and bodegas.³²³

Conclusion

Food deserts dot the American landscape, denying millions of people access to healthy affordable food. Because food deserts have multiple causes,³²⁴ no single policy lever can remedy the problem. But one factor causing or prolonging food deserts in many communities is the presence of covenants that run with the land and prevent the most suitable space in a

³¹⁷ JUDITH BELL ET AL., POLICY LINK & THE FOOD TRUST, ACCESS TO HEALTHY FOOD AND WHY IT MATTERS: A REVIEW OF THE RESEARCH 7 (2013).

³¹⁸ USDA, *supra* note 277 at 39 (“The food deserts literature suggests that those who have better access to supermarkets tend to have healthier diets and lower levels of obesity and related diseases.”); *id.* at 6 (“People who live in areas with limited access may be more prone to poor diets and have poor health outcomes, such as obesity or diabetes, because they lack access to healthy foods and may have too easy access to less healthy foods.”). Leslie, *supra* note 276 (noting that “most studies show that supermarket access results in healthier food consumption”).

³¹⁹ Jane Kolodinsky & Michele Cranwell, *The Poor Pay More? Now They Don’t Even Have a Store to Choose From: Bringing a Supermarket Back to the City*, 46 CONSUMER INTERESTS ANN. 24, 28 (2000).

³²⁰ Leslie, *supra* note 276 (noting that “government efforts to increase demand for nutritious food have floundered because inner-city residents lack access”).

³²¹ USDA, *supra* note 277 at 105 (discussing Pennsylvania Fresh Food Financing Initiative); Hawkins, *supra* note 276 at 126.

³²² USDA, *supra* note 277 at 107 (“Desirable alternatives to traditional supermarkets include food cooperatives, urban agriculture, farmers’ markets, public markets, smaller independent stores, and transportation hubs.”). *But see* Justin Schupp, *Wish You Were Here? The Prevalence of Farmers Markets In Food Deserts: An Examination Of The United States*, 22 FOOD, CULTURE, & SOCIETY 111 (2019) (noting that food deserts do not have farmers markets).

³²³ Raja, Ma & Pavan Yadav, *supra* note 274 at 469-70.

³²⁴ Marianne Bitler & Steven Haider, *An Economic View of Food Deserts in the United States*, 30 J. POLICY ANALYSIS & MANAGEMENT 153, 172 (2011).

neighborhood from hosting a grocery store. These anti-grocery covenants interfere with the free market and needlessly cause suffering.

Current responses to the problem of supermarket restrictive covenants are insufficient. Although a couple of state courts have invalidated anti-grocery covenants under state law, these opinions were context-specific and did not invalidate anti-grocery covenants more broadly. A nationwide ban on anti-grocery covenants would better effectuate the goal of restoring supermarkets and full-service grocery stores to inner-city neighborhoods deprived of affordable, fresh food.

How to Stop Stop & Shop's Anti-Competitive Land Acquisition Tactic

Karissa Kang

Introduction

When I first moved to New Haven from Atlanta, I was shocked – not by the weather, nor by the lack of Southern cuisine, but by the dearth of grocery stores. In Atlanta, I had the luxury of choosing between Publix, Kroger, Sprouts, Walmart, Target, Trader Joe's, Whole Foods, and the Fresh Market. In New Haven, the only national supermarket chain with a store in town is Stop & Shop. Many of my peers with cars make a weekly trek to the Trader Joe's ten miles away. But the New Haven Stop & Shop is only half a mile away from my apartment, so I prefer to walk there for my groceries.

It was probably during one of my many trips to Stop & Shop that I began to wonder why New Haven – a city much smaller than Atlanta, to be fair, but much bigger than the Atlantan suburb that I actually inhabited – had only one true, full-service grocery store. My inquiry into this question led me to learn about a tactic that Stop & Shop employs to block out competition. For decades, Stop & Shop has been purchasing vacant properties that are close to its own stores and well-suited to the sale of groceries. Instead of moving into these properties, however, the company has either kept them empty or sold them with deed restrictions that prohibit the sale of produce, dairy, meat, and other groceries. Stop & Shop's use of this tactic has been primarily documented by local journalists,³²⁵ but it has also been analyzed in a research paper³²⁶ and in a very recent *American Prospect* article.³²⁷

This essay is not intended to wholly condemn Stop & Shop or its parent company, Ahold Delhaize. In many ways, Stop & Shop has played an important role in the New Haven community. When Stop & Shop first moved into its New Haven location, the city's residents rejoiced. For a year prior to Stop & Shop's arrival, New Haven lacked a full-service grocery

³²⁵ See, e.g., Madeleine List, *Stop & Shop's Land Grab on Cape Cod*, CAPE COD TIMES, Sept. 6, 2015; Joe Wojitas, *Stonington Seeks Legal Help in Stop & Shop Lease Issue*, THE DAY, Aug. 10, 2010, <https://www.theday.com/article/20100810/NWS01/308109897>; Bree Shirvell, *Town Has Few Options for Vacant Stop & Shop Building*, PATCH, Jan. 18, 2012, <https://patch.com/connecticut/stonington/town-has-few-options-for-vacant-stop-shop-building>; Aviva Luttrell, *French King Big Box Site in Stop & Shop's Hands*, GREENFIELD RECORDER, Jan. 22, 2018, <https://www.recorder.com/Stop-and-Shop-master-lease-Ceruzzi-big-box-property-Greenfield-15000577>; and Mary C. Serreze, *Suspected Greenfield 'Walmart Site' Actually Held Defensively by Stop & Shop For a Decade*, MASSLIVE, Jan. 30, 2019, <https://www.masslive.com/news/2018/01/secret-stop-shop-land-lease-re.html>.

³²⁶ See Ronald Cotterill, *An Antitrust Economic Analysis of Stop & Shop's Proposed Acquisition of the Big V Shop Rite Supermarket Chain*, (Food Mktg. Pol'y Ctr., Research Report No. 63, 2002).

³²⁷ See Robert Kuttner, *Rollups: All Monopolies Are Local*, THE AMERICAN PROSPECT, Jan. 14, 2022, <https://prospect.org/power/rollups-all-monopolies-are-local/>.

store, and residents had to travel several miles in order to access one.³²⁸ For car-owning residents, the absence of a full-service grocery store was a mere inconvenience. For residents without cars, however, the absence was far more onerous.

This essay does, however, intend to detail, analyze, and evaluate Stop & Shop's use of restrictive covenants. To be clear, these covenants are utilized not only by Stop & Shop but also by Walmart, Albertsons, and other grocery chains.³²⁹ For the sake of this essay, I will focus only on Stop & Shop's use of the tactic. I will begin by discussing the history of grocery store restrictive covenants and the scholarly discourse generated by these covenants. I will then focus primarily on one particular instance when Stop & Shop employed this tactic. In this section, I will also discuss the possible justifications for the tactic and its harmful effects. Finally, I will discuss a solution that should be used to stop Stop & Shop from continuing to use this tactic.

A Brief History of Grocery Store Restrictive Covenants

Stop & Shop is far from the first grocery chain that has employed restrictive covenants. For decades, grocery stores have been employing these deed restrictions, and courts have generally deemed these restrictions legally permissible. A 1959 article surveyed restrictive covenants in shopping center leases and found that, although courts generally construed such covenants strictly against lessors, they nonetheless seldom held such covenants as unreasonable restraints of trade.³³⁰ In his conclusion, the author indicated that, although all leases are tailored to meet slightly different needs, courts' approach to these covenants was essentially correct.³³¹

A slightly earlier article, published in 1951, made a similar argument.³³² The article primarily analyzed *Oliver v. Hewitt*, a case decided by the Virginia Supreme Court in 1950.³³³ In *Oliver*, the plaintiff, who operated a grocery store, sold two plots of land nearby to his store and applied restrictive covenants to the land. The purchaser of the plaintiff's land sold this land to the defendant. Although the purchaser's contract with the defendant did not mention the restrictive covenant, the defendant was aware of the covenant's existence. The defendant leased one lot to a lessee, and the lessee, unaware of the covenant, opened a grocery store on the land. Subsequently, the plaintiff sued the defendant. The Virginia Supreme Court ruled that the

³²⁸ See, e.g., Janice Podsada, *Stop & Shop Opens in Former Shaw's in New Haven*, HARTFORD COURANT, Apr. 15, 2011, <https://www.courant.com/business/hc-xpm-2011-04-15-hc-new-haven-stop-and-shop-opens-20110414-story.html>.

³²⁹ See, e.g., Al Norman, *Wal-Mart Store Sits Empty Thanks to Wal-Mart*, SPRAWL-BUSTERS, Feb. 21, 2010, <https://sprawl-busters.com/wal-mart-store-sits-emptythanks-to-wal-mart/>; and Steve Holt, *How Leaving Stores Closed for Years Helps Grocery Chains and Hurts Communities*, Jan. 29, 2018, <https://theworld.org/stories/2018-01-29/how-leaving-stores-closed-years-helps-grocery-chains-and-hurts-communities>.

³³⁰ Peter J. Sturtevant, *Restrictive Covenants in Shopping Center Leases*, 34 N.Y.U. L. REV. 940, 940 (1959).

³³¹ *Id.* at 951 (“The lessor's covenant not to lease other property for a competing business use is not, under ordinary circumstances, an unreasonable restraint of trade, and may be enforced by the lessee or his assigns not only against the lessor but also against subsequent purchasers and tenants of the lessor's restricted land who have notice, actual or constructive, of the restriction.”).

³³² Thomas G. Martin, *Enforcement of Personal Covenants against Subsequent Grantees*, 1 WM. & MARY REV. VA. L. 92 (1951).

³³³ *Oliver v. Hewitt*, 191 Va. 163 (1950).

covenant was permissible and that, because the defendant was aware of its existence, it continued to apply to the land. The article's author agreed with the court's holding.

In 1965, David C. Baum proffered a more nuanced but ultimately similar argument.³³⁴ Baum agreed with the observations of Sturtevant and Martin that courts had long permitted stores and shopping centers to employ restrictive covenants. Unlike Sturtevant and Martin, however, Baum expressed trepidation that such covenants would negatively impact smaller competitors and the public as a whole. Nevertheless, he concluded that, without adequate information about these impacts, he could not wholeheartedly claim that shopping center deed restrictions should be illegal.

In recent years, courts have generally continued to permit the use of deed restrictions by grocery chains.³³⁵ However, scholars have become more openly critical of the practice.³³⁶ In 2002, Ronald Cotterill wrote specifically about the anticompetitive tactics employed by Stop & Shop. One of the tactics that Cotterill described was Stop & Shop's land acquisition tactic.³³⁷ In this essay, I seek to demonstrate that Stop & Shop's land acquisition tactic is even more widespread and pernicious than Cotterill suggested. For, in the intervening years between the publication of Cotterill's paper and the presentation of this one, there have emerged many more occurrences of Stop & Shop's land acquisition tactic.³³⁸

Stop & Shop's Tactic in Action

In 2009, Stop & Shop employed its land acquisition tactic in Stonington, CT.³³⁹ This particular instance was, in many ways, similar to other instances of the land acquisition tactic. In other ways, however, it was notable. Perhaps most saliently, it appears to have been the only such instance that resulted in a formal state investigation. In April 2009, Stop & Shop vacated its location in Pawcatuck Shopping Center in favor of a new location on Route 49.³⁴⁰ Instead of selling its former location or leasing it to a competitor, Stop & Shop kept the store vacant, and, in the subsequent months, other businesses in the shopping center bore the consequences of the

³³⁴ David C. Baum, *Lessors' Covenants Restricting Competition*, 1965 U. ILL. L.F. 228 (1965).

³³⁵ See, e.g., *Davidson Bros. v. D. Katz & Sons*, 121 N.J. 196 (1990); and *Winn Dixie Stores Inc. v. Dolgencorp Inc.*, 964 So.2d 261 (2007).

³³⁶ See, e.g., Nairne Cameron et al, *Cornering the Market: Restriction of Retail Supermarket Locations*, 28 *Environment and Planning C: Politics and Space* 905 (2010), Bruce Ziff & Ken Jiang, *Scorched Earth: The Use of Restrictive Covenants to Stifle Competition*, 30 *WINDSOR Y.B. ACCESS JUST.* 79 (2012); and Sugandhi del Canto & Rachel Engler-Stringer, *Prohibitive Property Practices: The Impact of Restrictive Covenants on the Built Food Environment*, in *A HANDBOOK OF FOOD CRIME: IMMORAL AND ILLEGAL PRACTICES IN THE FOOD INDUSTRY AND WHAT TO DO ABOUT THEM* (Allison Gray & Ronald Hinch eds., 2019).

³³⁷ *Id.* at 10 ("A recent and egregious example of this strategy is Ahold's anti-competitive land-banking strategy, where Ahold or Starwood Ceruzzi acquire shopping centers near existing Ahold markets and with sites suitable for supermarkets, but refuse to lease the site to a competitor of an Ahold chain.").

³³⁸ See sources cited *supra* note 1.

³³⁹ See *Wojitas*, *supra* note 1.

³⁴⁰ *Id.*

company's decision.³⁴¹ Bill Knotts, the owner of Christo's Pizza in the Pawcatuck Shopping Center, claimed that, as of August 10, 2010, his business was down ten percent since Stop & Shop closed.³⁴² Bob Piccolo, the owner of O'Keefe's Package Store, which occupied the storefront right next to the vacant Stop & Shop, reported that his business had dropped thirty-five percent since the closure.³⁴³ In response, Stonington First Selectman Ed Haberek sent a letter to then-Attorney General of Connecticut Richard Blumenthal asking for Blumenthal's assistance.³⁴⁴

In his letter, Haberek described Stop & Shop's land acquisition tactic and explained how the tactic had negatively impacted the residents of Stonington.³⁴⁵ "It has provided a negative effect on the entire shopping center and impacted the profitability of other tenants," he wrote.³⁴⁶ "It also has impacted the neighboring community who routinely shopped there."³⁴⁷ Citing Cotterill's Food Marketing Policy Center report, Haberek further claimed that Stop & Shop's behavior in Stonington was not an isolated incident.³⁴⁸

On August 31, 2010, Blumenthal responded:

The standard for antitrust violations in this type of situation is very difficult and demanding. The primary tenets of our antitrust law are found in the Sherman Act and in the Connecticut Antitrust Act. Section 2 of the federal Sherman Act, and its Connecticut counterpart, forbid monopolization or attempted monopolization. For an entity to have "monopoly power," it must have the ability to raise prices or exclude competition in a relevant geographic market. In your town's situation, the relevant geographic market would likely be defined by a court as an area broader than the town of Stonington and may well extend as far as an area encompassing sections of Groton, Ledyard, New London and Westerly, Rhode Island. Within that geographic area Stop & Shop faces existing competition from the Big Y, C Town, Shaw's stores, and other grocery stores. Stop & Shop would not appear to have sufficient monopoly in grocery sales in this geographic market.³⁴⁹

At the very end of his letter, Blumenthal directly addressed Stop & Shop's land banking strategy, writing, "Practically and conceptually I agree that it would be easier for a new supermarket to open on property that has previously been a supermarket, but the law does not require Stop & Shop to sublease the premises to a direct competitor."³⁵⁰

³⁴¹ *Id.*

³⁴² *Id.*

³⁴³ *Id.*

³⁴⁴ *Id.*

³⁴⁵ Letter from Edward Haberek, Jr., First Selectman of Stonington, Conn., to Richard Blumenthal, Att'y Gen. of Conn. (undated) (on file with the Office of the Conn. Att'y Gen.).

³⁴⁶ *Id.*

³⁴⁷ *Id.*

³⁴⁸ *Id.*

³⁴⁹ Letter from Richard Blumenthal, Att'y Gen. of Conn., to Edward Haberek, Jr., First Selectman of Stonington, Conn. (Aug. 31, 2010) (on file with the Office of the Conn. Att'y Gen.).

³⁵⁰ *Id.*

From a positive standpoint, Blumenthal was right. It is true that the law does not require and historically has not required a company like Stop & Shop to sublease its premises to a direct competitor. Because Stop & Shop's land acquisition practice is not *per se* illegal, the rule of reason would require plaintiffs to establish that Stop & Shop has the ability to raise prices or exclude competition in a relevant geographic market. In order to do so, plaintiffs would have to demonstrate that Stop & Shop's tactic has an anticompetitive effect, typically in the form of a price increase, output reduction, or market power. As Blumenthal explains, this is a difficult, demanding standard for plaintiffs.

Plaintiffs typically bear the burden of demonstrating an anticompetitive effect, but, in this particular case, it does not seem necessary that they do so. The anticompetitive effect of Stop & Shop's tactic is inherent in the language of its deed restrictions. These restrictions specifically forbid competitors from leasing Stop & Shop's land. Most often, the language of these restrictions is fairly general, forbidding use of the land by "a food supermarket, a food superstore, a food warehouse store, a specialty food store."³⁵¹ However, on at least one occasion, Stop & Shop has used a deed restriction to prevent a specific competitor, Walmart, from selling groceries on land owned by Stop & Shop.³⁵² It is self-evident from these restrictions that Stop & Shop's tactic is solely and wholly intended to hinder competition. The actual anticompetitive effect of these restrictions is evinced by Stop & Shop's continual use of them. If the restrictions failed at deterring competition, Stop & Shop would not go to the costly lengths of employing them.

There is evidence that Stop & Shop's tactic is incredibly costly, both to the company itself and to the people who live nearby the land that Stop & Shop controls. Stop & Shop has generally succeeded at keeping its lease agreements out of the public eye, but a 2013 lawsuit revealed documentation of a 2006 agreement that Stop & Shop made with Greenfield Property Development to control a piece of land in Greenfield, MA.³⁵³ According to this agreement, Stop & Shop said that it would pay Greenfield Property Development \$42,500 per month for the land.³⁵⁴ Because Stop & Shop has maintained control of this land for over a decade, it must have spent millions of dollars on this plot of land alone. It is telling that Stop & Shop was willing to invest millions of dollars to prevent Walmart from moving into the land. The company would not have done so if it had not valued the suppression of Walmart as worth more than the money that it had paid.

Solutions

It seems likely that, as Robert Kuttner writes, neither the FTC, Justice Department, nor a state attorney general's office would consider Stop & Shop's land acquisition tactic significant enough to justify the use of scarce staff resources.³⁵⁵ Even without the aid of these agencies and offices, however, there are alternative solutions that disgruntled citizens can pursue to prevent Stop & Shop from using its tactic. For example, their cities can enact ordinances that forbid the use of restrictive covenants by grocery stores. Several cities, including Washington, D.C.,

³⁵¹ See Kuttner, *supra* note 3.

³⁵² See Serreze, *supra* note 1.

³⁵³ *Id.*

³⁵⁴ *Id.*

³⁵⁵ See Kuttner, *supra* note 3.

Bellingham, WA, and Chicago, IL, have already done this.³⁵⁶ D.C.'s prohibition on grocery store restrictions is especially thoughtful and fair to both citizens and grocery chains. The ordinance makes it

unlawful for the owner or operator of a grocery store or a food retail store to agree to the inclusion of a restrictive land covenant or other use restriction in a contract for the sale, lease, or other transfer of real property that prohibits the use of the real property as a grocery store or a food retail store or that prohibits the use of any property within one mile as a grocery store or a food retail store.³⁵⁷

However, it also includes a provision that the

prohibition imposed by this section shall not apply to an owner or operator of a grocery store or food retail store that terminates operations at a site for purposes of relocating the grocery store or food retail store to a comparable or larger site located in the District of Columbia within one-half mile of the site where the prior operations were terminated; provided, that relocation and commencement of the operation of the new grocery store or food retail store at the new site occurs within 2 years of the sale, transfer, or lease of the prior site, and that the restrictive covenant or other use restriction agreed upon with respect to the prior site does not have a term in excess of 3 years.³⁵⁸

This provision ensures that, if a grocery store moves to a new location, it will have ample time to establish itself in its new location without the fear that a competitor will move into its old location and drive it out of business. Taken as a whole, the ordinance would prevent Stop & Shop from behaving as it did in Greenfield, MA, where it held a deed-restricted piece of land for over a decade, but it would provide them the opportunity to change locations without the threat of competition for a limited amount of time.

Although local ordinances provide a satisfyingly simple solution to grocery store deed restrictions, they are vulnerable to several criticisms. First, they take longer to enact than many citizens would prefer. The D.C. grocery store ordinance was first proposed in 2014, and it was not made into law until 2018. Disgruntled citizens might become frustrated that change cannot come sooner, but four years is a much shorter length of time than the decades that federal antitrust cases can take. Further, many cities, including Stonington and Greenfield, have endured Stop & Shop's deed restrictions for decades; in contrast with a decade, four years seems relatively bearable.

Second, one could argue that, if grocery store restrictive covenants are clearly anticompetitive, they should be *per se* illegal and that it would thus be inefficient for cities to pass individual ordinances in order to ban such covenants. This criticism seems to be in

³⁵⁶ See Wash., D.C., Code § 2-1212.61 (2018); Bellingham, Wash., Code § 20-10-027 (2021); and Chi., Ill. Code § 17-1-1004 (2005).

³⁵⁷ Wash., D.C., Code § 2-1212.61.

³⁵⁸ *Id.*

accordance with scholars' suggestions that rulemaking supplement antitrust adjudication.³⁵⁹ With Lina Khan as Chairperson of the FTC, these suggestions now seem more viable than ever. Even so, it would likely take much longer for, say, the FTC to pass a rule forbidding grocery store restrictive covenants than for a city to pass an ordinance doing so. Time is not the only factor that weighs against the favor of federal antitrust enforcements. Local ordinances allow cities to tailor their laws to their particular needs. Some cities might want to provide exceptions for certain uses of grocery store restrictive covenants, and other cities might want to provide no exceptions at all. A federal rule forbidding grocery store restrictive covenants would force all cities to conform to one particular rule, even when that rule does not best accommodate the needs of all cities.

A third and somewhat more troubling flaw of local ordinances is that they tend not to take a retroactive effect. The ordinances in D.C., Bellingham, and Chicago are all careful to specify that they only forbid grocery store restrictive covenants that take effect after the enactment of the ordinance. These ordinances reflect legislators' reluctance to enact *ex post facto* laws. It is important to note, however, that takings can be justified by legitimate governmental interests. In this case, it seems valuable for the government to increase the general public's welfare by nullifying any existing grocery store restrictive covenants and providing just compensation to affected grocery chains.

Conclusion

None of my research has dissuaded me from frequenting Stop & Shop. It remains the most convenient, affordable grocery option for me and for many other residents of New Haven. My research has, however, made me cognizant of the consequences that residents can face if Stop & Shop employs its land acquisition tactic in New Haven. If Stop & Shop relocates to a new storefront several miles away from its current New Haven location, it might choose to place a deed restriction on the land that it currently occupies. Such a covenant can last for decades. New Haven residents suffered greatly during the one year before Stop & Shop moved into its current location; had the lot been vacant for ninety-nine years, as a deed restriction might stipulate, residents' suffering would have been far more immense.

Some might argue that Stop & Shop's hypothetical relocation would not actually harm residents because they would have access to a new Stop & Shop just a few miles away. This line of thinking neglects to consider, however, that many of the customers who frequent the Stop & Shop at its current location walk there.³⁶⁰ Even one mile can make a substantial difference with respect to walkability.

For these reasons, I would urge the City of New Haven to consider enacting an ordinance that forbids grocery stores from using restrictive covenants to block their competitors from

³⁵⁹ See, e.g., Rohit Chopra and Lina M. Khan, *The Case for "Unfair Methods of Competition Rulemaking*, 87 U. CHI. L. REV. 357 (2020), <https://chicagounbound.uchicago.edu/uclrev/vol87/iss2/4>; and Tim Wu, *Antitrust via Rulemaking: Competition Catalysts*, 16 COLO. TECH. L. J. 33 (2017), https://scholarship.law.columbia.edu/faculty_scholarship/2056.

³⁶⁰ See, e.g., Podsada, *supra* note 4.

moving to certain lots of land. I believe that it would be better to stop Stop & Shop before consumers suffer the price.

(Anti)Trust but Verify

Matt Summers

Basics of Consent Orders

The overwhelming majority of enforcement actions have long resulted in consent orders.³⁶¹ Consent orders can best be thought of as analogous to plea bargains or settlements. Instead of the government going to trial to block a merger that could harm competition in its entirety, the parties come to a negotiated agreement. “A well-crafted consent order can achieve divestitures necessary to preserve existing levels of competition, stop anticompetitive conduct, cause firms to take additional steps to restore competition, or clear away impediments to future competition.”³⁶² Typically these agreements involve the parties divesting some elements of their businesses in order to lessen the anticompetitive effects of the deal. For example, if two grocery chains were going to merge, the FTC might approve the merger using a consent decree that requires the companies to spin off some of their stores (a practice known as divestiture) to sustain competition in certain areas of the country. Occasionally, however, the agencies impose what are known as behavioral remedies. These remedies require certain conduct from the merged entity, such as refraining from a particular business practice.

Companies agree to consent orders for a number of reasons. Primarily, companies that could lose an entire deal after expensive litigation would rather comply with the agency dictates and proceed with the merger. Additionally, consent orders can provide peace of mind to companies by preventing future litigation risk. Section 5 exempts the FTC from pursuing some cases after a merger was resolved by consent order and there are “umbrella” protections against further public or private claims.³⁶³

There is a “hybrid” nature of consent orders that is important to understand for the purposes of this paper. “Consent decrees and orders have attributes both of contracts and of judicial decrees While they are arrived at by negotiation between the parties and often admit no violation of law, they are motivated by threatened or pending litigation and must be approved by the court Because of this dual character, consent decrees are treated as contracts for some purposes but not for others.”³⁶⁴

³⁶¹ Jed Goldfarb, *Keeping Rufo in Its Cell: The Modification of Antitrust Consent Decrees After Rufo v. Inmates of Suffolk County Jail*, 72 N.Y.U. L. REV. 625, 663 n.224 (1997).

³⁶² Deborah L. Feinstein, Director, FTC Bureau of Competition, Remarks at the Global Competition Review (Sept. 17, 2013).

³⁶³ A. Bruce Campbell, *Antitrust Consent Decrees a Proposal to Enlist Private Plaintiffs in Enforcement Efforts*, 54 CORNELL L. REV. 763, 766 n.17 (1969).

³⁶⁴ *United States v. ITT Conti'l Baking Co.*, 420 U.S. 223, 236 n.10 (1975).

Enforcement of consent orders

A consent order that the companies do not abide by is not worth the paper it is written on. Imagine, for example, that a regulator approves a merger but requires the merged entity to continue doing business with a rival. If two companies merge and then fail to abide by the remedy, the merged entity will get the allowable benefits of the merger (efficiencies) *and* the illicit gains (monopoly profits). The agency will have wasted resources investigating and negotiating the consent order and, more importantly, consumers will end up footing the bill.

The agencies have a number of tools to ensure that consent orders are complied with. First, “[t]here are standard provisions that are included in consent orders, such as compliance reports and access to records.”³⁶⁵ This allows monitoring by the agencies after the merger is consummated. If the agencies detect malfeasance, they can file contempt charges and levy hefty fines on the merged entity. The deterrent effect from a few such cases can help ensure broader compliance. For example, in one case, after the FTC discovered that “what was delivered to the buyer 12 months later was a relatively unattractive set of assets with significantly diminished sales[, it] filed a federal court action to obtain civil penalties, and in settlement, [the company] agreed to pay \$3 million and divest two additional stores.”³⁶⁶ Second, the agencies can structure consent orders in ways that make it hard for the companies to renege. Ensuring that divested assets go to long-standing, viable competitors rather than newly-constructed entities can make it harder for the merged company to buy back or bankrupt divisions it sold.

However, both of these approaches are imperfect. The first tool strains the dramatically underfunded agencies. Agencies that are inundated with reviewing a flood of new mergers on tight deadlines are often unable to provide the level of oversight necessary to ensure compliance with long-past consent orders. Additionally, the agencies are often not in the best place to evaluate non-compliance. Rivals and consumer groups are more likely to feel the effects of companies skirting the terms of orders. Finally, structuring deals to ensure compliance can only go so far. Circumstances change and even fiercely competitive rivals can end up shedding the newly acquired assets. And some anticompetitive harms are not easily remedied with structural remedies.

³⁶⁵ Deborah L. Feinstein, Director, FTC Bureau of Competition, Remarks at the Global Competition Review (Sept. 17, 2013).

³⁶⁶ Deborah L. Feinstein, Director, FTC Bureau of Competition, Remarks at the Global Competition Review (Sept. 17, 2013).

Non-Compliance in Practice—The Safeway-Albertsons Consent Order

Because of the systemic challenges to enforcing consent orders, there is a long-documented history of non-compliance.³⁶⁷ This persists in spite of substantial threatened penalties.³⁶⁸

The FTC’s Safeway-Albertsons order illustrates the ineffectiveness of many consent orders and highlights the acute importance of this paper’s reform in the food retail space. Senator Elizabeth Warren observed that “[e]ven when companies meet conditions, like selling off some assets, they sometimes just turn around and buy back the same assets they originally sold off. . . . [When] Albertsons was allowed to merge with Safeway[,] the divested parts of the business declared bankruptcy, and the bigger compan[y] just bought back part of the compan[y] they sold off.”³⁶⁹ Mere months after “the FTC required Albertsons and Safeway to sell off hundreds of stores as part of their merger . . . one of the major buyers of their stores declared bankruptcy and put the acquired stores back up for sale. Albertsons [] bought back twelve of those stores—at a price far lower than what it had originally paid.”³⁷⁰ Consolidation in the food retail space uniquely harms vulnerable consumers. Everyone needs food, and many people who live in food deserts with limited options are especially susceptible to being overcharged for bare necessities. Non-compliance with consent orders has serious consequences in any domain, but it is hard to imagine a more devastating impact than raising the price of staples for people who have nowhere else to turn.

A New Mechanism

This paper proposes a mechanism that should be intuitive to antitrust practitioners: a private right of action for violations of consent orders. A private right of action would allow private individuals and companies an opportunity to bring suit against corporations on the grounds that they are not abiding by consent decrees. There are a number of ways this could be structured, but this paper recommends a structure that will allow plaintiffs to benefit from legal presumptions when they can prove an order is violated and obtain treble damages for any injuries suffered as a result.

³⁶⁷ A. Bruce Campbell, *Antitrust Consent Decrees a Proposal to Enlist Private Plaintiffs in Enforcement Efforts*, 54 CORNELL L. REV. 763, 770 (1969).

³⁶⁸ A. Bruce Campbell, *Antitrust Consent Decrees a Proposal to Enlist Private Plaintiffs in Enforcement Efforts*, 54 CORNELL L. REV. 763, 771 (1969).

³⁶⁹ Elizabeth Warren, Senator, Keynote Remarks at New America Foundation: Reigniting Competition in the American Economy (June 29, 2016).

³⁷⁰ Lina Khan & Sandeep Vaheesan, *Market Power and Inequality: The Antitrust Counterrevolution and Its Discontents*, 11 HARV. L. & POL’Y REV. 235, 254 (2017) (citing *Albertsons Buys Haggen, Will Continue to Operate 15 Stores Under Haggen Brand*, PUGET SOUND BUS. J. (Mar. 14, 2016), <http://www.bizjournals.com/seattle/news/2016/03/14/albertsons-buys-haggen-will-continue-to-operate-15.htm>).

Creating a private right of action to enforce consent orders would enable more vigorous protection of consumers like Safeway-Albertsons shoppers both *ex ante* and *ex post*. *Ex post*, private action reduces reliance on the agencies. Too often, under-resourced agencies cannot maintain sufficient monitoring or initiate enforcement actions for consent order violations. A private right of action would allow affected companies and consumers to identify and punish violations without drawing down agency resources. Creating a private right of action also fosters more consumer-protective consent orders *ex ante*. Enforcing consent orders can be so challenging that agencies sometimes unilaterally abandon certain types of conditions. For example, former Assistant Attorney General Makan Delrahim renounced the use of behavioral remedies entirely.³⁷¹ Making enforcement easier shifts the agency's cost-benefit calculus by reducing the cost of enforcement, which incentivizes negotiating more ambitious consent orders.

There are three paths forward. First, in the status quo, private plaintiffs may be able to bring suits for damages as third-party contract beneficiaries. This path is arguably foreclosed by precedent,³⁷² but could become feasible if the agencies re-introduce third-party beneficiary language into orders. Second, the agencies could leverage civil penalties to incentivize private parties to do the heavy lifting for them. Whichever law firm identifies a violation or provides litigating support to help the agency bring charges could reap any civil penalties the agency wins. In Safeway-Albertsons, "each violation of [the] order [could trigger] a civil penalty of up to \$16,000 per day," providing ample possible incentive for private parties to help the agency bring suit.³⁷³ Third, legislative changes could formally create a private right of action for any affected party. This reform would fit neatly into existing popular, bipartisan reform bills that seek to enhance agency enforcement muscle.³⁷⁴ Creating a private right of action would increase enforcement effectiveness without costing tax dollars.

Conclusion

Creating a private right of action for consent orders is especially important for regulating food retail markets. Some mergers may be necessary to ensure grocery availability in hard-to-serve geographies, but these same transactions could threaten competition elsewhere. For vulnerable consumers, this issue has life-or-death consequences. Creating a private right of action for consent orders is an important step toward ensuring that these orders work for all consumers in all U.S. retail food markets—in other words, for all of us.

³⁷¹ Makan Delrahim, Assistant Attorney General, Remarks at the Federal Telecommunications Institute's Conference in Mexico City (Nov. 7, 2018).

³⁷² See generally Charles Sullivan, *Enforcement of Government Antitrust Decrees by Private Parties: Third Party Beneficiary Rights and Intervenor Status*, 123 U. PA. L. REV. 822 (1975).

³⁷³ Press release, Federal Trade Commission, FTC Requires Albertsons and Safeway to Sell 168 Stores as a Condition of Merger (Jan. 27, 2015) (available at: <https://www.ftc.gov/news-events/press-releases/2015/01/ftc-requires-albertsons-safeway-sell-168-stores-condition-merger>).

³⁷⁴ See, e.g., Competition and Antitrust Law Enforcement Reform Act of 2021, S. 225, 117th Cong. (2021).

Digging In: Ethics, Disclosure, and Conflicts of Interest in Academic Agricultural Economic Publishing

Kate M. Conlow

Introduction

In August 2020, Congress called upon the U.S. Department of Agriculture to examine industry concentration in the U.S. beef market.³⁷⁵ In a letter to former Secretary of Agriculture Sonny Perdue, members of the House Committee on Agriculture specifically asked the Department to look into the meatpacking industry's role in fluctuating beef prices, the current composition of players in the market, and how four companies came to control meatpacking.³⁷⁶ At the same time—though not discussed in the letter—Congress was also considering whether to revise the Livestock Mandatory Reporting Act of 1999 (LMRA), which mandates price reporting and transparency in the beef sector.³⁷⁷ The potential revisions to the Act aimed to address a number of concerns regarding continued lack of price transparency. To write the report, the USDA's Office of the Chief Economist commissioned the Agricultural and Food Policy Center at Texas A&M University to research and compile “a study to look into the issues surrounding fed cattle pricing.”³⁷⁸ The final two-hundred-page report is comprised of ten papers authored by academic agricultural economists from land grant public universities. The report's recommendations can be summed up as follows: minimizing the four packers' market concentration, asserting that nontransparent pricing in the vertical supply is better for consumers, and urging that no changes be made to the LMRA. Missing from these pages was any mention that multiple (if not all)³⁷⁹ of the USDA-commissioned report authors are paid consultants for industry lobbyists, marketing bodies, associations, and private corporations.

In agriculture, academic economists like the contributors to the USDA's cattle report serve an important role in providing authority on market conditions and policy—authority that Congress and regulatory bodies rely on when crafting laws like the LMRA, as well as rules and regulations. And while it is common for government bodies to rely on outside expertise, in agriculture, food retail, and beyond, the field of economics has become incredibly influential.

³⁷⁵ AGRIC. & FOOD POL'Y CENTER, TEX. A&M UNIV., *THE U.S. BEEF SUPPLY CHAIN: ISSUES & CHALLENGES* (Bart L. Fischer, Joe L. Outlaw & David P. Anderson, eds., 2021) [hereinafter *USDA CATTLE MARKET REPORT*].

³⁷⁶ *Id.* at vi–vii. See also, Tom Polansek, *Explainer: How Four Big Companies Control the U.S. Beef Industry*, REUTERS (June 17, 2021, 12:12 PM), <https://www.reuters.com/business/how-four-big-companies-control-us-beef-industry-2021-06-17>.

³⁷⁷ *USDA CATTLE MARKET REPORT*, *supra* note 1, at vii. See also, Jacqui Fatka, *Congress Gets More Time to Work on Livestock Price Reporting*, FARMPROGRESS (Dec. 9, 2021), <https://www.farmprogress.com/farm-policy/congress-gets-more-time-work-livestock-price-reporting>.

³⁷⁸ *USDA CATTLE MARKET REPORT*, *supra* note 1, at vii.

³⁷⁹ Finding data on consulting activities is quite difficult, if not impossible so I was unable to verify each author's work for private corporations and associations.

Despite their contributions to national policy, agricultural economists at universities also serve as consultants for private companies and industry associations. These dual affiliations create conflicts of interest, yet it is highly uncommon to find disclosures in agricultural economics scholarly publishing and government-commissioned reports. This paper examines the issue of nondisclosure in academic agricultural economics research publishing, providing insight into the problem through examples of conflicts of interest, and then puts forth solutions for policymakers, journals, and media outlets.

Academic Agricultural Economists, Conflicts of Interest, and Publishing

Academic agricultural economists often work for private interests, in addition to their faculty appointments. For example, many academic economists are also paid over four figures to serve as expert witnesses and bolster arguments for litigating private parties like JBS—often providing neutral-seeming studies that end up favoring the person writing the check.³⁸⁰ Indeed, “[a] perk of academic employment [for agricultural economists] is the ability to earn additional income from non-university entities by consulting.”³⁸¹ Then, these same economists also act as consultants and provide research for government bodies like the USDA. But there is no standard or rule for disclosing conflicts of interest in their scholarly writing or interviews. Economics as a field has no licensing agency or regulatory body, even though economists often serve as a driving force behind market-based policy and regulatory changes, new laws, and even judicial opinions.

Conflicts of interest arise “when an individual’s private interests, and his or her professional obligations . . . diverge.”³⁸² A conflict of interest in research has been defined as “any financial or other interest which conflicts with the service of the individual because it (1) could significantly impair the individual’s objectivity or (2) could create an unfair competitive advantage for any person or organization.”³⁸³ In the context of academic economists, for example, conflicts of interest often emerge when a faculty member enters into a financial contract with a private party. But financial ties are not the only conflicts of interest: any type of

³⁸⁰ For example, Dermont Hayes, an agricultural economist and Pioneer Chair in Agribusiness at Iowa State University, has served as an expert witness for JBS, one of the four companies that dominate the meatpacking market. *See* Ruling on Pretrial Motion at 4, *Dovico v. Valley View Swine, LLC*, No. LALA 105144 (Iowa Dist. Ct. June 8, 2016); *see generally* Michael J. Mandel, *Going for the Gold: Economists as Expert Witnesses*, 13 J. ECON. PERSP. 113 (1999).

³⁸¹ Kelsey L. Conley, Jayson L. Lusk, Joe L. Parcell & Glynn T. Tonsor, *Consulting Activities of Agricultural Economists and Response to University Policies*, 41 APPLIED ECON. PERSPECTIVES & POL’Y 650, 650 (2019). Indeed, several of the authors of the aforementioned article consult for several industry associations, though they are not disclosed in the article. *Id.*

³⁸² *Research Conduct and Conflicts of Interest*, NBER (visited Mar. 1, 2022), <https://www.nber.org/research-conduct-and-conflicts-interest>.

³⁸³ Background Information and Confidential Conflict of Interest Disclosure, THE NAT’L ACADS. OF SCIS., ENG’G & MED. (Mar. 2016).

power imbalance or external pressure (like achieving tenure) can lead to situations that influence an individual's research.

Why are conflicts of interest problematic? First, research shows that they distort outcomes and can often “compromise . . . the integrity of research findings.”³⁸⁴ When conflicts of interest exist in academic research, there can be a “funding effect.”³⁸⁶ One study showed that research “funded by private companies, compared to independent non-profit and government sources as controls, tended to produce outcomes consistent with the financial interest of those companies. The effect can be found in the data collection and in the interpretation of results.”³⁸⁷ Additionally, research shows that the amount of financial support behind an academic is irrelevant—large and small contributions can impact the objectivity of research.³⁸⁸

A range of professions have ethical standards that require—at minimum—disclosures of conflict of interest, if not complete avoidance, to avoid such “funding effects: “attorneys have the Model Rules of Professional Conduct; doctors have the Hippocratic Oath; and journalists, public relations professionals, engineers, psychologists, accountants, nurses, and even graphic artists each have their own documented set of standards for professional conduct.”³⁸⁹ Indeed, many professions have licensing requirements, fiduciary duties, and/or ethical standards or codes; these professions share a commonality in that members have the potential to significantly impact policy, shape the law, or impact the health and wellbeing of Americans. Thus, there is a need to ensure integrity, objectivity, and transparency to avoid potentially devastating consequences that can result from conflicts of interest.

Accountants have very high standards of professional ethics and conduct because of their influence on public policy and their legal responsibilities, which, if violated, can lead to license revocation. For accountants, who play an important role in certain areas of the law, there exists a fiduciary duty of the utmost loyalty, care, and good faith.³⁹⁰ The role of accountants is so important that the AICPA Code of Professional Conduct says those in the profession have an “obligation to act in a way that will serve the public interest, honor the public trust, and demonstrate a commitment to professionalism.”³⁹¹ Accountants must act with the highest ethical standards toward “clients, credit grantors, governments, employers, investors, the business and financial community, and others who rely on the objectivity and integrity of members to maintain the orderly function of commerce.”³⁹² Additionally, there are circumstances where

³⁸⁴ Annie Lowrey, *The Economics of Economists' Ethics*, SLATE (Jan. 05, 2011, 5:22 PM).

³⁸⁵ *Research Conduct and Conflicts of Interest*, *supra* note 8.

³⁸⁶ Sheldon Krimsky & Tim Schwab, *Conflicts of Interest Among Committee Members in the National Academies' Genetically Engineered Crop Study*, PLOS ONE (2017).

³⁸⁷ *Id.*

³⁸⁸ Sheldon Krimsky & Tim Schwab, *Conflicts of Interest Among Committee Members in the National Academies' Genetically Engineered Crop Study* 4, PLOS ONE (2017).

³⁸⁹ *The Good, the Bad, and Their Corporate Codes of Ethics: Enron, Sarbanes-Oxley, and the Problems with Legislating Good Behavior*, 116 Harv. L. Rev. 2123, 2125 (2003).

³⁹⁰ Vincent J. Love & John H. Eickemeyer, *Fiduciary Duty, Due Care, and the Public Interest: A Practical Dilemma for CPAs*, THE CPA JOURNAL (APRIL 2020).

³⁹¹ ASS'N OF INT'L CERTIFIED PRO. ACCTS., CODE OF PROFESSIONAL CONDUCT § 0.300.030.01.

³⁹² *Id.*

accountants must act independently from their clients, like when a CPA provides attestation services and must legally provide an objective evaluation.³⁹³ The same should be done for economists.

Like accountants, economists can and do play an important role in the law. The USDA regularly contracts with academic economists—either as persons or through their LLCs. Despite any statutory charge, economists have taken a leading role in antitrust and market regulation policy. They are routinely hired by the USDA to provide market analysis, and they are called on by Congress to testify on the state of concentration in markets.³⁹⁴ Thus, it is surprising, if not shocking, that economists have no licensing requirement, professional standards, or code of ethics.

Disclosure Issues in Academic Agricultural Economic Literature

The issue of conflicts of interest reached a tipping point during the Great Recession when the documentary *Inside Job* exposed that academic economists' conflicts of interest contributed to misleading both the American government and governments abroad as to the instability of the financial markets. The documentary showed the way that “the economics discipline has been systematically subverted . . . by money” in that economists are paid by companies “to testify in Congress, to serve on boards of directors, testify in antitrust cases and regulatory proceedings, and to give speeches to the companies and industries they study and write about with supposed subjectivity.”³⁹⁵ Responding to this documentary, the American Economic Association (“AEA”), which publishes nine academic journals, instituted for the first time a disclosure of conflict of interest policy. Soon thereafter, the Agricultural and Applied Economics Association (“AAEA”), which produces six publications, adopted a version of the AEA’s disclosure policy.

While disclosure policies by publications are a start, the extent of disclosure within the AEA has been less precise over the past decade, and the AAEA does not seem to enforce the disclosures. Additionally, when disclosures do appear, they tend to not be published with the actual article, but rather buried in a downloadable file that is accessible by a URL. The work of Timothy J. Richards, who writes for and edits an AAEA journal, highlights the organization’s lack of disclosure enforcement. Richards’s own faculty webpage at Arizona State University states that he “does extensive consulting work in the food retailing and manufacturing industries for clients that include Walmart, Kroger, SuperValu, Hormel, Sara Lee, JBS Swift, Foster Farms, and a number of others”; yet, despite these clear conflicts of interests, nowhere in the articles that he recently published in the AAEA’s *American Journal of Agricultural Economics* were those conflicts disclosed.³⁹⁶

It is worth noting that Richards’s decision to disclose his consulting work on his university webpage is unique among academic agricultural economists. Indeed, consulting work

³⁹³ *Id.*

³⁹⁴ USDA CATTLE MARKET REPORT, *supra* note 1, at xii–xiv.

³⁹⁵ Jonathan Wight, *The Ethical Economist*, in THE OXFORD HANDBOOK OF PROFESSIONAL ECONOMIC ETHICS 139 (2016).

³⁹⁶ See, e.g., Timothy J. Richards, Stephen F. Hamilton, Miguel Gomez & Elliot Rabinovich, *Retail Intermediation and Local Foods*, 99 AM. J. AGRIC. ECON. 637 (2017).

is quite shrouded. Public universities require faculty to disclose conflict of interests like consulting work for private companies and trade groups; however, when I submitted records requests to two influential land grant universities (Purdue University and Iowa State University), my requests were denied because they are considered “personnel records” or are “confidential and not available for public disclosure.”

Lack of conflict of interest disclosures in academic agricultural economic research and writing is particularly troubling because of the influence the scholarship has on policy. For example, disclosures are absent in studies published by the USDA. Take as an example *The U.S. Beef Supply Chain: Issues and Challenges* report. While the report includes bios for each economist, there is no disclosure of consulting work or other conflicts of interest that might impact the objectivity of the research. Indeed, multiple economists who contributed to the report work for companies and associations that represent industry interests in the very issues that the report was supposed to examine objectively. For example, since at least May 4, 2020, the National Cattlemen’s Beef Association, a beef trade association and lobbying group, “has been working closely with Dr. Steven R. Koontz to develop . . . industry-led solutions on the best methods to increase cash market activity without causing financial harm to the industry.”³⁹⁷ Koontz is an agricultural economics professor at Colorado State University, and he contributed a paper to the Cattle Report titled *Another Look at Alternative Marketing Arrangement Use by the Cattle and Beef Industry*, which painted a rosy picture of alternative marketing arrangements (“AMAs”)—a controversial mode of selling due to the lack of price discovery, which is preferred by meatpackers to more transparent cash markets. The NCBA has a great interest in preserving the current AMA selling arrangements in beef markets, which contribute to concentration among meatpackers.³⁹⁸ It is especially opposed to calls by Congress to change the current selling structure, which does not require market reporting and price transparency. And indeed, Koontz’s article reinforces the value of AMAs in the report, emphasizing that any costs that result from AMAs are “not market power related.”³⁹⁹

Similarly, the conflicts of interest of Glynn T. Tonsor, a professor of agricultural economics at Kansas State University, were not disclosed in the USDA’s beef market report. Had his conflicts of interest been shared, the policy makers reading the report would have been aware of Tonsor’s past or current “contractual work” for the Cattlemen’s Beef Board, Keystone Foods (the beef, pork, and chicken supplier for consumer brands such as McDonald’s), CAFO’s BEST, and the National Pork Board.⁴⁰⁰ Tonsor has also served as chair of the Livestock Marketing Information Center, whose members and funders include lobbying and industry groups like the American Farm Bureau Federation, the NCBA, and the NPB, among others. The lack of transparency around such influential research is deeply troubling.

Another influential agricultural economist that regularly weighs in on public policy while working for private interests is Jayson Lusk at Purdue University. He has been paid to consult or

³⁹⁷ Dr. Stephen R. Koontz on How Marketing Mandates May Negatively Impact Cattle Industry, NCBA NEWS (May 4, 2020), <https://www.ncba.org/ncba-news/news-releases/news/details/26080/search.aspx>.

³⁹⁸ See Yuliya V. Bolotova, *Competition Issues in the U.S. Beef Industry*, APPLIED ECON. PERSPS. & POL’Y (2021).

³⁹⁹ USDA CATTLE MARKET REPORT, *supra* note 1, at 118.

⁴⁰⁰ See Curriculum Vitae, Glynn Tonsor, 53–54, 57–58, https://www.ageconomics.k-state.edu/directory/faculty_directory/tonsor.

give presentations for the Beef Cattle Research Fund, Corn Refiners Association, National Pork Board, National Pork Producers Council, North American Meat Institute, Food Marketing Institute, and Cattlemen’s Beef Promotion and Research Board.⁴⁰¹ Yet, these disclosures are not included in his *New York Times* op-eds⁴⁰² or his *Wall Street Journal*⁴⁰³ articles, nor in Lusk’s article cited by the USDA Cattle Study⁴⁰⁴ or the bio that was provided to the House Committee on Agriculture when he testified to Congress in July 2021 on the “State of the Beef Supply Chain.”⁴⁰⁵

The agricultural economists mentioned above serve as just a few examples of the conflicts of interest that exist in the field, and it is worth noting that finding information regarding their work for private companies was arduous. Indeed, the extent of conflicts of interest among agricultural economists providing expertise to government agencies via direct contracts, indirect scholarly publishing, or media appearances is unknown but believed to be incredibly pervasive and contributing to many issues emanating from the concentration of industry in agriculture. In short, there is nothing transparent about academic agricultural economists’ work for private interests.

Solutions

This paper addresses three settings where conflict of interest disclosures are needed: academic economic research and publishing, media and journalism outlets, and regulatory and legislative research. Each of these platforms for research conducted by economists needs to have conflict of interest disclosures and can achieve these through the following recommendations.

First, academic agricultural economic research and publishing must require and enforce conflict of interest disclosures. Currently, however, there is little incentive to do so. There is significant pressure on non-tenured faculty to publish, and disclosures can undermine perceptions of their research integrity as they advance through the peer review process. The lack of disclosure needs to change. Disclosure should include information about the economist’s consulting work and any pertinent information regarding datasets that might be influenced by private funding. Indeed, disclosures within research studies should be required—for example when a company has provided data with conditions, those conditions must be shared with readers of the work. In sum, scholarly journals must start requiring and enforcing conflict of interest

⁴⁰¹ See Jason L. Lusk, Dan Blaustein-Rejto, Saloni Shah & Glynn T. Tonsor, *Impact of Plant-Based Meat Alternatives on Cattle Inventories and Greenhouse Gas Emissions*, 17 ENVIRON. RES. LETT. 5 (Feb. 11, 2022).

⁴⁰² Jayson Lusk, *Why Industrial Farms Are Good for the Environment*, N.Y. TIMES (Sept. 23, 2016), https://www.nytimes.com/2016/09/25/opinion/sunday/why-industrial-farms-are-good-for-the-environment.html?_r=0.

⁴⁰³ Jason L. Lusk & Michael D. Boehlje, *For Farmers and Consumers, a Crazy Year in Food*, WALL ST. J. (Dec. 16, 2020, at 3 p.m.), <https://www.wsj.com/articles/for-farmers-and-consumers-a-crazy-year-in-food-11608071329>.

⁴⁰⁴ USDA Cattle Study, *supra* note XX, at 39 (citing Joshua G. Maples, Jayson L. Lusk & Derrell S. Peel, *Unintended Consequences of the Quest for Increased Efficiency in Beef Cattle: When Bigger Isn’t Better*,” FOOD POLICY (Nov. 2017) (arguing for thicker cuts of steak)).

⁴⁰⁵ Congressional Hearing, *State of the Beef Supply Chain: Shocks, Recovery, and Rebuilding*, <https://www.congress.gov/event/117th-congress/house-event/113973?s=1&r=46>.

disclosures alongside their articles, in the actual pages of the publication, and not buried behind a website's paywall.

Second, news outlets like *The New York Times* and *The Wall Street Journal*, as well as those that report specifically on agriculture, must require conflict of interest disclosures by academic economists in their bylines. Economists' capture by private interest is too pervasive for outlets not to include these disclosures while purporting to be objective media.

Third, the USDA and Congress must mandate rules that agricultural economists are required to disclose conflicts of interest. This should be enforced through a codified federal regulation. The USDA's current rules are not sufficient.⁴⁰⁶ As a starting point, the USDA should look to the Department of Health and Human Services' Public Health Service, which "promotes objectivity in research by establishing standards that provide a reasonable expectation that the design, conduct, and reporting of research funded under . . . grants or cooperative agreements will be free from bias resulting from Investigator financial conflicts of interest."⁴⁰⁷ These conflict of interest guidelines are codified and include provisions to sanction researchers who deviate from the conflict of interest requirements.⁴⁰⁸ Ethical standards will bolster the integrity of the agency and begin the process of ensuring that private interests are not being promoted through purportedly neutral research.

Finally, economics as a profession, and specifically agricultural economics, needs to have professional standards akin to those required of lawyers and accountants. Professions that have ethical standards offer "important services," "[m]ake[] a commitment to serve the public, and "[c]laim[] a special relationship to the marketplace."⁴⁰⁹ This describes economics. Indeed, professional ethical standards are incredibly important because "beliefs and practices constitute a vast and unseen institutional force."⁴¹⁰ Economists should be beholden to professional standards, which also come with professional sanctions, just like others who have the power to impact national policy and hold the trust and confidence of those in the profession.

Conclusion

The extent of conflicts of interest and the power that corporations have on USDA regulations expands far beyond the pages and scope of this paper, but there is a complete lack of transparency in academic agricultural economic research and publishing, and this has created and perpetuates private interests serving as the guiding forces behind government regulations and laws.

⁴⁰⁶ The closest thing to a conflict of interest disclosure rule that I could find is 2 CFR § 400.2.

⁴⁰⁷ 42 C.F.R. § 50.601. *See also id.* §§ .602–07.

⁴⁰⁸ 42 C.F.R. § 50.606–07.

⁴⁰⁹ Professional Ethics, ILL. INST. OF TECH., <https://ethics.iit.edu/teaching/professional-ethics>.

⁴¹⁰ JONATHAN B. WIGHT, ETHICS IN ECONOMICS 4 (2015).



Panel 4: Issues for Low-Income Americans

Exploring Consumer Data Privacy & Retailer Competition within the USDA's Supplemental Nutrition Assistance Program (SNAP) Online Purchasing Pilot

Isabelle Foster, Charlie Hoffs, Angelina Polselli & Kyle Winterboer

Introduction

The Supplemental Nutrition Assistance Program (SNAP) Online Purchasing Pilot (OPP) is an ambitious and innovative federal food security program run by the Food and Nutrition Service (FNS) division of the United States Department of Agriculture (USDA). Rapidly scaled up during the COVID-19 public health crisis, SNAP OPP became a vital resource for many. However, despite the program's potential to unlock greater access to fresh foods, the program's policies may insufficiently protect consumers' data privacy, and existing retailer requirements may limit the participation of other retailers, therefore reducing competition. By analyzing the SNAP OPP, its program requirements, and privacy policies, this paper investigates how unregulated digital marketing practices in combination with barriers to entry have created an online marketplace that lacks competition between retailers and proper safeguards to protect customers.

SNAP OPP Overview

SNAP, formerly known as “food stamps”, provides financial food assistance to low-income US households. Participation in the program has been linked with a reduction in poverty, food insecurity, and poor nutrition (Keith-Jennings, et al), and boosts the national economy by increasing low-income spending (Hanson and Morrison). The USDA's recent roll-out of the SNAP OPP has been a promising step towards modernizing the program and increasing access to fresh foods. Enacted in the 2014 Farm Bill and first implemented in 2019 in New York, SNAP OPP allows SNAP participants to use their benefits to purchase groceries online (“Stores Accepting SNAP Online”) (“H.R.2642 - 113th Congress (2013-2014): Agricultural Act of 2014”, 128 STAT. 792). The program began as a pilot in just a handful of states, but expanded rapidly during the COVID-19 pandemic as social distancing and safe, accessible purchase options were necessary. As of February 2022, 47 states and the District of Columbia are currently participating in SNAP OPP (“Stores Accepting SNAP Online”).

When SNAP OPP implementation began, initial concerns arose around the use of online marketing and targeted advertising. While advertising for unhealthy food products has historically been prevalent in the grocery aisle, online marketing opens entirely new ways of reaching customers, from social media apps, grocery store homepages, emails, and much more. A study by The Center for Science in the Public Interest (CSPI) that evaluated online food and beverage promotions by e-grocers reported that retailers marketed unhealthy foods at an extremely high rate, finding that “seventy two percent of Safeway's product promotions were unhealthy options.” It is important to note that Safeway was one of the few original retailers

approved for SNAP Online during its initial roll out (McCarthy, et al., 5). Additionally, by harnessing the ability of algorithms, retailers and marketers can now specifically target audiences in a way that was not possible in the grocery store. CSPI found that 75% of Amazon Prime’s email promotions were for unhealthy foods and beverages, while Walmart Grocery reached 88% (McCarthy et al., 6). Such advertisements do not necessarily imply that a consumer will buy such products, but they do constantly expose individuals to less healthy options and can lead to “decision fatigue that contributes to impulse purchases” (McCarthy, et al. 35). At the same time, not all advertisement techniques are equally applied. The CSPI report notes that it has been “documented that food and beverage companies nationwide already aggressively target communities of color with marketing for foods and drinks low in nutrition and high in sugar” (Chester, et al.), proving the need to have established regulations and boundaries for SNAP OPP participating stores.

While it appears that the USDA initially recognized the need for higher levels of data privacy, greater program analysis is needed to assess whether consumers’ data rights have been properly safeguarded. As the USDA lays out in the program’s guidelines, “SNAP online purchases must have a higher level of security than most other online purchases” particularly related to the use of secure pin codes for the EBT cards (Shahin et al.). To address this, the USDA has stipulated that every grocery vendor must follow certain steps and get approval in order to be registered as a SNAP OPP retailer. For example, all interested candidates are required to utilize a pre-approved payment processing system, integrate a secure pin code system into their interface, and follow certain stocking rules to ensure they meet USDA compliance (Shahin et al.). Nonetheless, there still remains very limited to no guidance on many aspects of data privacy and the usage of SNAP participants’ information. While the aforementioned rules designed to protect SNAP transactions are well-intentioned and necessary, the way in which they have been implemented has led to confusion for many retailers. Similarly, lack of technical support to small stores inadvertently created a situation in which, initially, only larger retailers with significant resources were able to participate. These circumstances have decreased competition in the online SNAP marketplace and limited SNAP participants’ options for where to shop. Although the USDA has been working to approve more retailers, further efforts are needed—to be outlined further below—to ensure that retailers have a more equal chance in participating in SNAP OPP.

U.S. Federal Legislation & SNAP OPP Comparison

The predominant federal policy that pertains to the regulation of online grocery retail is the Federal Trade Commission (FTC) Act (Federal Trade Commission). The FTC Act “is empowered, among other things, to (a) prevent unfair methods of competition and unfair or deceptive acts or practices in or affecting commerce; (b) seek monetary redress and other relief for conduct injurious to consumers; (c) prescribe rules defining with specificity acts or practices that are unfair or deceptive, and establishing requirements designed to prevent such acts or practices; (d) gather and compile information and conduct investigations relating to the organization, business, practices, and management of entities engaged in commerce; and (e) make reports and legislative recommendations to Congress and the public” (Federal Trade Commission).

Despite the FTC Act’s broadly defined scope, its enforcement capacity on the issue of consumer data privacy is largely limited to investigating retailers’ violations of their own privacy policies (Electronic Privacy Information Center). This limitation is problematic because it does not endow the FTC with the needed regulatory power to ensure SNAP OPP retailers protect consumer data privacy. The FTC’s limited power to solely litigate retailers’ violations of retailers’ own privacy policies creates a situation in which retailers can violate rules defined in the USDA SNAP Online Purchasing Pilot Request for Volunteers (SNAP OPP RFV) (“Electronic Benefits Transfer Online Purchasing Pilot Request for Volunteers”) guidelines with impunity, use ambiguous, widely-interpretable privacy policy language that can be used to defend dubious privacy practices, and sanctify retailers’ self-defined privacy policies as the gold standard and the sole grounds for consumer data protection, when in fact, these policies allow for infringement upon consumer data privacy (Headrick, et al. 6, 8).

First, the authors’ review uncovered no federal policy that can prosecute a retailer for violating the SNAP OPP RFV. The FTC Act is the primary federal policy overseeing consumer privacy in online retail and can only litigate retailer’s violations of their own policies. If a retailer is in compliance with its own privacy policy but not with the SNAP OPP RFV, there is no mechanism for prosecuting the retailer. The SNAP OPP RFV notes that compliance with its guidelines is necessary for the initial selection of a retailer (66-69), but does not explain the punitive recourse for retailers who do not continue to comply with the guidelines after their acceptance to the program. There is no mention of ongoing investigation and updates on retailers’ privacy policies and practices, and therefore no likely means for such violations to be noted. The 2014 Farm Bill, which originally created SNAP OPP, did mandate that a final report on the program be submitted to Congress by July 1, 2016 detailing the progress of SNAP OPP (“H.R.2642 - 113th Congress (2013-2014): Agricultural Act of 2014”, 128 STAT. 792). While the Farm Bill did not specify the required contents of the proposed report, it is possible that the report may have included data on the program’s usage and growth trends, and, importantly, an audit of participating retailers’ ongoing compliance with the guidelines. The 2018 Farm Bill, however, struck the reporting requirement entirely, so there is no longer mandated reporting to Congress (“H.R.2 - 115th Congress (2017-2018): Agriculture Improvement Act of 2018” 132 STAT. 4624).

There is also no mention of the consequences of noncompliance. The RFV does note that the USDA FNS may issue a retailer a notice of “involuntary withdrawal” (52) and discontinue their ability to accept online SNAP payments if they fall out of compliance with a series of waivers relating to specific practical and technical processes (e.g., “PIN-less refund”, “PIN-entry method”, “Printed Receipt”, “Product Display”, “Prepayment”, “Card Must be Present” and “Equal Treatment”), but makes no such mention regarding the violation of privacy policies. Furthermore, punishing a noncompliant retailer by forcing the abrupt discontinuation of online EBT acceptance would likely cause inequitable service gaps that would negatively impact SNAP customers. Unconstrained by any mechanisms within the SNAP OPP RFV to investigate or prosecute consumer data privacy violations nor an equitable and effective process for addressing noncompliant retailers, and given the FTC’s lack of authority to litigate violations of the SNAP OPP RFV, several retailers fail to comply with the SNAP OPP RFV with impunity.

One SNAP OPP RFV rule that at least two retailers fail to uphold is the mandate that all SNAP OPP retailers obtain explicit consent from customers through an “opt-in” mechanism before their data is shared with any third party (51-52). The RFV states that, due to legislative

privacy requirements, it is necessary for FNS to ensure that personal information such as name, address, or email address collected by SNAP Internet Retailers is not compromised, sold, rented, or given away free to any third party without authorization. Websites that do share data at the individual level (e.g., with a supplier so they can send discount offers directly to a SNAP client's email address) must obtain explicit consent from EBT customers to release such information. In other words, the EBT customer must "opt in" to allow such sharing and not have to "opt out" to prevent the sharing" (51). One specific example of a SNAP OPP company that fails to fulfill this requirement is the retailer FreshDirect, which does not appear to offer customers the opportunity to opt-out of sharing personally-identifiable data with third parties for marketing purposes, therefore falling in violation of the RFV. FreshDirect's online policy, last updated in 2017, says, "FreshDirect may disclose the information we collect from and about you... to our select partners, affiliates, and other third parties that we believe may have offers of interest to you." (FreshDirect). Similarly, the privacy policy of Wright's Market also fails to obtain customers' explicit consent for sharing individual data with third parties via an opt-in option (Wright's Food Center). The company's policy notes, "we may also use and disclose information in the aggregate (so that no individual customers are identified) for marketing programs, advertisers, and partners," but includes no specific language on protocols for obtaining permission to share individual, non-aggregate data. Because neither the FTC Act nor the SNAP OPP RFV can prosecute these violations, FreshDirect and potentially Wright's Market and other retailers can continue to share consumer data with third parties for marketing purposes without obtaining the consumer's consent.

Secondly, the retailers' use of vague language in their company policies allows for broad interpretability, therefore affording retailers the ability to defend dubious practices as aligned with their policies' ambiguous statements. For example, all eight of the SNAP OPP retailers assessed in a recent study by Headrick, et al. mentioned in their privacy policies that they share data with "parent companies, affiliated businesses, or partner businesses without the consent of the customer" (8). The vagueness of this statement allows retailers to define any businesses as a "partner". Furthermore, large companies have many affiliated and partner businesses. The customer may not agree with Amazon's definition of a trusted "partner" with whom they'd agree to their personally-identifiable data being shared. Furthermore, the wide breadth of affiliate, partner, and parent businesses with which each retailer shares data without consent may not be considered in compliance with the SNAP OPP RFV's requirement that data shared with third parties be only after obtaining explicit consent. However, because there is no evaluation mechanism for such ambiguities, the potential violations of consumer privacy may be enacted with impunity.

Thirdly, the FTC ACT's regulatory authority to only prosecute retailers when they are in violation of their own self-defined privacy policies sets a premise that those policies are the gold standard of privacy policy. In lieu of an objective, universal, impartial privacy standard, relegating regulation authority to retailer's own privacy policies, which are aligned to support the success of the company, not the privacy of the consumer, allows for violations of consumer privacy.

The FTC's authority to prosecute retailers' violations of consumer data privacy is limited to the litigation of retailers' violations of their own privacy policies. This allows retailers to violate regulations defined in the USDA SNAP OPP RFV, to use ambiguous privacy policy

language to defend their privacy practices, and to problematically establish their own privacy policies as the paradigm of privacy standards.

California Consumer Privacy Act (CCPA) & SNAP OPP Comparison

Given that federal action on data regulation has been slow to move, several states have begun to take their own action. In particular, the California Consumer Privacy Act (CCPA) stands out as one of the most progressive pieces of legislation in the country. Originally passed in the California legislature in 2018, this law went into effect in January 2020, just three months before California joined the SNAP OPP program. As such, CalFresh (the term for “SNAP” in California) customers were the only SNAP participants to have both federal and state-level data protection at this time. The CCPA provides multiple safeguards to protect digital customers buying groceries through SNAP OPP. Such measures helped CalFresh customers better understand what personal data retailers were collecting and which sites might be safer than others, therefore allowing customers to make an informed decision on whether they would like to continue using that online interface.

During COVID-19, online grocery stores became an integral facet of life due to social distancing measures. Nonetheless, digital security questions arose, much as they did for other industries. Grocery stores slowly became hotspots for data privacy concerns, especially for the SNAP Online Purchasing Pilot program (SNAP OPP). Researchers at the Center for Digital Democracy (CDD) conducted research and wrote about the potential data privacy challenges that may exist for SNAP customers. This program “could also expose participants to increased data collection and surveillance, a flood of intrusive and manipulative online marketing techniques, and pervasive promotion of unhealthy foods” that would cause a data and public health crisis (Chester, et al., 3). One of the most pressing features is the ability of retailers to access information on consumers “including their purchasing behaviors, device use, geolocation, social media interactions, online interests, financial status, race/ethnicity, age, health concerns and more” making the privacy of these customers practically non-existent (Chester et al., 5). By compiling such detailed information about customers, private companies would be able to profit off of personal and private information about individuals, often given without consent.

While data concerns exist within the SNAP online program, those living in California are afforded important, additional protection through the CCPA. The CCPA outlines that consumers have the right to “request to know [which] means a consumer can request that a business disclose personal information that it has collected about the consumer pursuant”, creating a chain of clarity between consumer and corporation (Bill Text - SB-1121 California Consumer Privacy Act of 2018, sec. 999.301 (r)). This level of transparency is unique to California shoppers. Transparency is not the only way in which the CCPA advances data security. It also states that consumers cannot be discriminated against after exercising their privacy rights. This is important because this discrimination includes “denying goods or services [or] charging different prices” of goods that are provided (Baik, 17).

Under the same rule, however, there is a special exception that explains that “if that price or difference is directly related to the value provided to the consumer by the consumer’s data,” the company is allowed to change the price of the goods provided (Baik, 17). California’s

Attorney General outlines that grocery stores, under the CCPA, must provide a “Notice of Financial Incentive” if the grocery store “requires customers to provide personal information” to participate in a loyalty program (“CCPA Enforcement Case Examples”). Numerous retailers participating in the SNAP OPP explicitly admit that they may provide different services, prices, and promotions after customers opt out of cookies. For four of the eight SNAP OPP retailers investigated by Headrick, et al., “Opting out of cookies will limit the utility of the site, such as not seeing ads or being unable to add products to the cart” (8). This is a detrimental possibility for CalFresh customers because an increase in the cost of goods would result in less purchasing power for the customer, and therefore fewer food items will be able to be purchased. Another harmful effect would be the ultimate deterrence from the OPP program because of the increased cost. This would greatly limit the positive effects of the program and make it even more inaccessible for those who need it. Therefore, while the CCPA does provide needed protections, there are still some aspects that allow for unequal harm against SNAP customers.

An additional shortcoming of the CCPA is that it is concerningly lax in its rules regarding how retailers obtain consent to sell customers’ personally identifiable information to third parties. CCPA mandates that retailers provide consumers a “notice of right to opt-out” [which] means a notice [must be] given by a business informing consumers of their right to opt-out of the sales of their personal information” which applies to companies who do business in California (Bill Text - SB-1121 California Consumer Privacy Act of 2018, sec. 999.301 (m)). This opt-out feature applies across all online retailers, helpfully allowing informed SNAP customers to protect their data not only when buying groceries, but also when purchasing other goods through digital technology. Digital protections, like opting out of data collection, may also minimize targeted ads that have been found to link to unhealthy products and detrimental health effects. Additionally, these tools could allow researchers to potentially find differences in data collection experiences between CalFresh and non-CalFresh recipients. However, “opting-out” requires additional customer action and data security awareness; unprompted, the average shopper is unlikely to explore the meaning of and possibility of “opting-out.” An explicit opt-in more directly makes customers aware of their selection choice and rights. As a USDA requirement, the SNAP Online Purchasing Pilot does require that retailers obtain express consent and customers explicitly “opt-in” to the sharing of their personally identifiable information with third parties (USDA Food and Nutrition Service, b, 61-62). This simple difference means that it might be in fact easier for a consumer using SNAP OPP to avoid data collection versus someone shopping on other virtual marketplaces in California.

While the opt-in feature within the RFV does provide more accessibility for the consumer, there is a lack of additional support for those who wish to delete their data that has already been collected. Unlike the CCPA, the RFV does not provide clear ways to request data deletion. Additionally, the RFV does not provide the consumer with any data protection agent. The CCPA, under the newly passed Prop 24, would not only provide a data protection agent, but would also establish a data protection agency to directly assist consumers in deleting their data, finding where their information has been stored, or addressing company violations (Proposition 24 [Ballot]). It is important to emphasize that accessing any of these data protection features requires a high level of digital literacy, which is not equally distributed across internet users. SNAP customers who may be older, disabled, or without frequent access to the Internet, may have lower digital literacy, therefore making it much more difficult for them to easily access such tools provided under the CCPA or RFV.

When comparing the SNAP OPP RFV to the CCPA, a SNAP customer would be better protected and supported under the CCPA than the standalone RFV. The better protection is a result of additional data privacy measures in California, like the right to deletion or a right to inquire about where your data is going and to whom. These are important aspects to maintaining data privacy online and are not covered by the RFV. Additionally, under the CCPA there is a data protection agency providing direct support to those who wish to learn more about how to protect themselves online. Under the SNAP OPP RFV, no such agency exists even though the information that is being collected could be potentially detrimental to the SNAP customer. To better protect SNAP customers, the USDA should update their RFV to include features like data deletion and a simplified method to access user data that has been collected. The USDA should also work in partnerships with other federal organizations to establish a data protection agency similar to California's that can help provide one-on-one support to online shoppers.

The General Data Privacy Regulation (GDPR) & SNAP OPP Comparison

The European Union (EU) is at the helm of data privacy. From legislation around social media to e-commerce, European consumer protection and digital rights policy have become an important example for the global community. In doing so, the EU's progressive and action-oriented stance has set an important precedent and provides a framework to which other policies can be compared. Assessing the degree to which SNAP OPP policy upholds GDPR standards can be informative for understanding where OPP works well and how the USDA might strengthen its data policies as it moves into an increasingly digital world.

At the center of EU data policy is the General Data Privacy Regulation (GDPR), which went into effect on May 25th, 2018. This piece of legislation governs data usage, processing, and storage practices across all EU member states. Expansive and comprehensive, the GDPR covers myriad topics, from specifying the rights of 'data subjects' to the enactment of independent supervisory authorities to oversee enforcement ("General Data Protection Regulation (GDPR) – Official Legal Text."). This policy was designed to address several challenges in the online data space, in particular the increasing power imbalance between individuals and the private entities which collect their data. As companies either discreetly or explicitly collected copious amounts of data on users without consent, they reaped massive profits and often exploited such information to their benefit. Recognizing the need for action, European citizenry and leaders alike pushed for the GDPR as a more stringent and updated supplement to the European Data Protection Directive from 1995. A strong theoretical and moral underpinning for both pieces of legislation historically comes from the European Convention on Human Rights, a 1950 decree which established the fundamental right to privacy in European countries. These beliefs still are closely held, and as a result, breaching GDPR requirements results in a hefty fee, amounting to nearly €20 million or 4% of global revenues (whichever is higher) and any additional compensation for data subjects ("What Is GDPR, the EU's New Data Protection Law?").

This stringent set of legislation provides a useful framework for assessing SNAP OPP given its high standards and applicability to e-commerce. Under the GDPR, in order for an entity to have permission to process data, it must fulfill one of the six reasons for 'Lawfulness of Processing' as outlined in Article 6 ("Art. 6 GDPR – Lawfulness of Processing."). One of these reasons is that data "processing is necessary for the performance of a contract to which the data

subject is party or in order to take steps at the request of the data subject prior to entering into a contract” (“Art. 6 GDPR – Lawfulness of Processing”). Grocery shopping and therefore SNAP OPP would fulfill such a definition. A private sector entity that accepts payment from a SNAP participant with the promise to acquire and deliver groceries can be considered a contract. As such, under the GDPR, there is a legal precedent for processing consumer data in the SNAP OPP scenario. Executing this type of contract therefore entails several steps, each of which will necessitate different types of information in order to complete. These steps include: order processing, payment, order delivery, customer notifications, customer support, and long-term customer engagement (W3C Community and Business Groups). Unlike SNAP OPP rules, the GDPR is very explicit in stating how data can be procured, how much data can be obtained, and for how long such data can be stored by these companies, which has implications for each of the aforementioned steps. The SNAP OPP rules, however, are less comprehensive in that they do not adequately address the need for and use of data at each of these steps. Instead, the RFV only briefly includes a few broad data and privacy policies, such as cookies and ‘security practices and policies’ at large, which will be further described below (“Electronic Benefits Transfer Online Purchasing Pilot Request for Volunteers” 50).

Cookies, for example, are tools that can be used across several of the grocery processing steps outlined above. Section 2.4.6.2 “Use of Cookies” in the SNAP OPP RFV states that “some websites use ‘cookies’ to store data related to access and use of the site on the customer’s personal computer, smartphone or tablet. FNS is very concerned about the use of cookies by FNS-authorized Internet Retailers” (“Electronic Benefits Transfer Online Purchasing Pilot Request for Volunteers” 50). However, rather than explicitly limiting the ways in which companies can use cookies, the RFV states that “to ensure optimum security for online EBT transactions, FNS would prefer that cookies not be used at all. However, if they are required for your system, it is essential that no PII [personally identifiable information] data be recorded by the retailer on any user access devices” (“Electronic Benefits Transfer Online Purchasing Pilot Request for Volunteers” 50). In a store’s application for SNAP OPP approval, the USDA only requires that a store “identify” if it will use cookies, whether it will store personally identifiable information, and if cookies can be “easily deleted or avoided”. This wording does not set any definitive standards nor does it create any firm guidelines on cookie use. Instead, it provides ambiguous language that affords private sector companies the latitude to do as they wish.

It is also not clear to what degree the USDA actively scrutinizes the stated use of cookies that grocery companies include in their application. The authors of this paper contacted the SNAP OPP team at FNS to 1) ensure that the RFV posted online was the most updated set of requirements for retailers, and 2) ask if there were additional data privacy requirements that applicants must show during a later stage in the screening process that were not mentioned in the RFV. The FNS team confirmed that the publicly posted RFV was the most updated document, which retailers must fulfill when applying. They did not further comment on data privacy processes and rules, simply stating that they encourage retailers to follow best practices for privacy protocols. The GDPR, on the other hand, states that companies or websites must receive explicit permission from consumers before cookies can be installed on the individual’s computer or device, and the site must provide information on how the cookie will be used and how they can be deactivated. This goes beyond assuming consent and solely informing a user that cookies are being used. While cookies required for baseline website functioning or basic processes such as creating a shopping cart when buying online do not require consent, all of the additional

cookies frequently collected by large stores like Amazon and Walmart do (“Data Protection and Online Privacy”). At the end of 2020, France fined Amazon \$42 million USD for inadequately informing users about cookie usage and failing to properly obtain consent before installing such cookies. This example illustrates how many of these large retailers actively use cookies and harvest data, and that more explicit regulations and enforcement are needed to protect users’ information (Lomas).

The GDPR’s opt-in rather than opt-out framework is applicable across many of the transaction processing steps. A company must ask the user for consent to install cookies and process certain types of data, and the user must explicitly agree. Consent can take the form of signing a form or selecting *agree/do not agree*; however, solely an opt-out option is insufficient. This includes marketing information and targeted emails for specific products. Such stipulations have clear implications across the e-grocery transaction, from customer notifications to customer support and engagement, which often include emails and outreach (“Data Protection and Online Privacy”). Under 2.4.6.4 “Privacy Practices and Policies” of the SNAP OPP guidelines, the USDA does state that Internet retailers must receive authorization from EBT customers—as an opt-in rather than opt-out form—in order to share individual-level data with other entities. This policy does align with the GDPR, and the USDA gives an example where an Internet retailer would require opt-in permission to share consumer data, such as sending direct discounts or advertisements to the customer’s email. However, what is concerning is that the RFV states that explicit consent is *not* needed by customers for internal marketing. Instead, the grocery store only needs to have “published privacy policies with a clearly identified, easy to find link from the home page” (“Electronic Benefits Transfer Online Purchasing Pilot Request for Volunteers” 51). While it is encouraging that the USDA tries to support greater transparency in data usage by requiring these policies to be posted, these rules are still more passive than the GDPR and do not require as much upfront consent.

One area where there is greater divergence between the GDPR framework and SNAP OPP rules is regarding the processing of demographic data. While knowledge of what and how much personally identifiable data is collected by Amazon and similar companies is not publicly known, recent studies have found that many of these companies do gather information on race, gender, ethnic background, and more. In the CDD’s report on SNAP OPP, they found that many retailers, such as FreshDirect and Safeway, gather personal and demographic information about users to allow them to implement targeted advertising and services (Chester, et al., 42, 44). Given this precedent, such data processing warrants further attention from the USDA. Particularly with the SNAP program, it is critical to understand what demographic information Internet retailers might be collecting and how such data might inform or direct their actions. The GDPR has a very clear stance on such activity, as stipulated in Article 9: “Processing of Special Categories of Personal Data.” This section states that entities are not allowed to gather personal data “revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, or trade union membership, and the processing of genetic data, biometric data for the purpose of uniquely identifying a natural person, data concerning health or data concerning a natural person’s sex life or sexual orientation...” (“Art. 9 GDPR – Processing of Special Categories of Personal Data”). While there are exceptions to this rule, such as for medical offices and government organizations, grocery store companies and online stores would not be allowed to process such information. The SNAP OPP guidelines do not meaningfully address these components, and Section 2.4.6.4: “Privacy Practices and Policies” of the RFV states that

personal information must not be “not compromised, sold, rented, or given away free to any third party without authorization” (“Electronic Benefits Transfer Online Purchasing Pilot Request for Volunteers” 51). It does not, however, provide as strict guidance or prohibition on how grocery retailers can collect or use this demographic and personal information internally.

The GDPR is an invaluable piece of legislation that provides important criteria by which to compare other policies, such as the SNAP OPP program. While there are many additional major components and criteria within the GDPR that can and should be compared with the SNAP OPP policy, the selected examples mentioned above underscore areas of principal concern with respect to the current online SNAP policies. Additional comparative analysis between SNAP OPP and the GDPR should be undertaken in the months ahead to further improve and strengthen the program’s data privacy.

Antitrust & Retailer Competition for SNAP OPP

SNAP OPP offers exciting new market opportunities that can increase the availability of healthy foods for low-income shoppers by incentivizing and compensating retailers with government funds. However, doing so necessitates enacting effective program policies and legislation that ensures all retailers are able to equally participate. Otherwise, unintentional monopolies can manifest due to program guidelines that make participation onerous for smaller retailers. In the SNAP OPP program, each retailer applicant must undergo a series of USDA requirements to earn approval to accept EBT online purchases. While it is necessary that the USDA verifies each retailer can ensure safe transaction processing, many of these steps pose barriers to small stores, both those hoping to accept SNAP at brick-and-mortar stores as well as online through SNAP OPP. In some cases, the cost of a SNAP EBT processing machine is a barrier to small businesses and particularly farmers markets who wish to offer SNAP in their physical store. Furthermore, only a select few financial technology companies have been approved as acceptable payment processing for online benefits redemption. As a result, corporate companies with greater access to resources benefit from such requirements and can better navigate the complex application, permitting, and financial technology integration processes. This results in a limited landscape of retailers who can offer SNAP, with local and smaller stores often being disproportionately impacted.

Due to the recency of the SNAP OPP program, there is less research on the program’s anti-competitive nature. The following sections thus outline some of the major challenges that resulted from SNAP OPP’s protocols. One initial challenge, due to the rapid roll-out of SNAP OPP, was the government’s failure to provide resources to assist retailers in applying to participate. While the program originally started as a pilot and therefore only initially selected a limited number of retailers, this issue became problematic when the program expanded during the pandemic but new retailers were not being onboarded. The few pilot retailers remained the only available retailers for the first months of the pandemic. While the USDA started taking steps to get onboard more retailers, numerous requirements and technological barriers for stores make it very difficult for new grocers to get approved. While there are, in 2022, currently around 90 retailers enrolled in SNAP OPP, many of these stores are larger chains, rather than local mom-and-pop stores. This is due to the lengthy application and testing process as well as technological capacity that stores must have in order to apply. This in effect hurts small businesses and denies their ability to compete with better-positioned competitors that can now

access government funds from SNAP OPP. Notable reforms have been proposed to overcome these tech barriers but ultimately were not passed. One example is the Expanding SNAP Options Act of 2020 (“S.4202 - 116th Congress (2019-2020): Expanding SNAP Options Act of 2020.”; Foster, et al. 11) which proposed funding for the creation of a general USDA SNAP online retailer marketplace where small food businesses could advertise their products without having to build out their own technology or data security systems.

Beyond exclusions from online markets, SNAP OPP presents another antitrust concern: SNAP OPP retailers can access more consumer data than smaller competitors excluded from SNAP OPP. Federal antitrust efforts therefore continue to inadequately address an important area: data privacy. Corporate power over the past 50 years has afforded companies greater levels of political power, resulting in relaxed regulations where private companies can more easily evade regulators. Antitrust enforcement agencies can better meet their mission statements of promoting competition and protecting consumer welfare by providing strong data privacy enforcement to bring players into line with ethical data practices. This is critical in the context of government assistance programs such as SNAP OPP, as select private sector companies are approved to serve SNAP OPP shoppers and therefore access an exclusive pool of government funding. Enacting strong safeguards to protect data rights is necessary and should be a USDA priority. Without stronger regulations, corporations may continue building massive portfolios of consumer data with which to wage economic war on their competition and ultimately harm consumers. Until antitrust enforcers reign in such practices, small businesses and good actors will remain at a disadvantage.

While earlier parts of this paper address data privacy from the perspective of the SNAP consumer, another critical issue is data transparency. While SNAP retailers submit regular financial reports to the USDA, corporations vocally rejected requests to publicly share high-level, non-identifiable information about SNAP transactions at their stores, such as the amount of SNAP dollars they process and the types of food purchased at their establishments using SNAP benefits (“FMI Rejects Legislation that Attempts to Overturn 6-3 Supreme Court Decision on Confidential Commercial Data”). In defense, many companies claim that they cannot share information or divulge their practices due to “competition concerns”, claiming that their own business data are confidential trade secrets. However, in not sharing this information, large stores are able to hide the degree to which there is strong market consolidation and limited retailer participation, as many of the top retailers reap the majority of SNAP dollars. While one can agree that not all information on aggregate SNAP transactions should be publicly accessible, one can argue that, given the SNAP program is funded through taxpayer dollars, some of this information should be made available. Doing so would allow researchers to examine the effectiveness of government policies and enable public health researchers to examine the nutritional benefits of SNAP OPP.

Despite the benefits of transparency, the past decade has witnessed numerous examples of business lobbyists clouding SNAP data accessibility and fighting Freedom of Information Act (FOIA) requests. This issue was exemplified in the US Supreme Court Case, *Food Marketing Institute v. Argus Leader Media (FMI v. Argus)*, in 2019, which provided stores with greater latitude to reject FOIA requests by expanding the definition of confidentiality. This result favored business over public interests (“Exemption 4 after the Supreme Court’s Ruling in *Food Marketing Institute v. Argus Leader Media*”). Legislators have sought to undo this court action through the Open and Responsive Government Act of 2021 (“S.742 - 117th Congress (2021-

2022): Open and Responsive Government Act of 2021”), which sought to limit the amount of data the government could exempt from FOIA requests and was introduced by Senators Chuck Grassley, Patrick Leahy, and Dianne Feinstein. If it had passed, it would have made SNAP business data more available. Another recent bill with direct potential impacts on SNAP OPP is the American Innovation and Choice Online Act (2021-2022). “This bill prohibits certain large online platforms from engaging in specified acts, including giving preference to their own products on the platform, unfairly limiting the availability on the platform of competing products from another business, or discriminating in the application or enforcement of the platform's terms of service among similarly situated users” (“H.R.3816 - 117th Congress (2021-2022): American Choice and Innovation Online Act”).

The precedent set by *FMI v. Argus* has dramatically impacted SNAP OPP and the public’s ability to examine competition and antitrust concerns within the online retail space. Limited to no data is available on where SNAP OPP money has been spent in the first several years of implementation due to retailers blocking requests for data transparency. This has resulted in a lack of transparency and hides from the public the level of market concentration in the SNAP OPP program, such as Amazon and Walmart. This further complicates efforts to inform legislation as seen in the attempts to pass the Expanding SNAP Options Act of 2020. Given this lack of transparency, legislators were not shown the quantitative statistics of competition concerns. In fact, the authors previously undertook efforts to gather such information on SNAP OPP expenditure when writing a policy report in February of 2021 (Foster, et al.) This lack of data transparency remains a barrier today that hinders SNAP OPP.

On a final note, US antitrust regulations should aim to ensure a separation of data sharing within consolidated corporations. Internal “horizontal” data sharing may harm consumers. The GDPR’s Article 9 differentiates between sectors, as seen when medical clinics are allowed to collect more data than food retailers. It should be noted, however, that medical offices are often owned and funded by pharmaceutical corporations that are increasingly diversifying their portfolios to overtake seemingly unrelated sectors, such as food, chemical production, and grocery retail (Hendrickson, et al. 3).

Ironically, corporations’ data-sharing abilities could benefit effective social service delivery, if equitably and effectively employed. For example, horizontal data sharing could increase enrollment in government social safety net programs like SNAP or Medicare by allowing government agencies, i.e., the IRS and Department of Social Services, to appropriately share general application information to other programs. Furthermore, the “opt-out” tactics abused by corporations in their data mining exploits are not used in government programs which instead require “opting-in” to new benefits programs through time-intensive applications. After identifying eligible candidates through horizontal data sharing, the US could automatically enroll low-income citizens in government financial and health benefits, then allow citizens to choose to opt-out. Instead, the government imposes burdensome enrollment processes. If policies are indeed meant to benefit communities, the switch to automatic enrollment with an opt-out could help enroll the largest number of qualifying individuals as smoothly as possible. Recent precedent exists as this is exactly what was done with the distribution of pandemic stimulus checks.

The overprovision of data privacy through timely applications limits enrollment in benefits programs. Conversely, the underprovision of data privacy within SNAP OPP is exploited by corporate data mining, thus exacerbating dire conditions of inequity. All in all,

business transparency is a small price for corporations to pay and a reasonable expectation by the USDA and American taxpayers. This is especially true as businesses willingly enter these programs in exchange for the reward of competing in a market for exclusive government funds. Ultimately, stronger antitrust enforcement geared towards data privacy can level the playing field and promote a competitive online food retail market into the future.

Policy Recommendations Section

After rapidly expanding in 2020 during the COVID-19 crisis, the SNAP OPP program no longer remains a “pilot.” Instead, it is a nationwide program that spans 47 states and the District of Columbia, available through 90-plus retailers and touted as unlocking expanded grocery access and fresh food delivery in many communities (“Stores Accepting SNAP Online”). The speed at which this program has been implemented and the potential benefits it offers are promising, a testament to the USDA and states’ rapid response to COVID-19. Nonetheless, there remain additional areas where data privacy and antitrust practices could be improved. We propose four key recommendations that Congress, the USDA, and the FTC could implement to better safeguard SNAP consumers’ data privacy and increase market competition.

First, we recommend that Congress reinstate in the 2023 Farm Bill the SNAP OPP reporting requirement. This evaluation requirement was originally included in the 2014 Farm Bill and had allocated resources for a rigorous program evaluation of SNAP OPP to be conducted, but was removed in the 2018 Farm Bill. A holistic and comprehensive overview of SNAP OPP is still needed, particularly as program usage increases in the coming years. As such, in the 2023 Farm Bill, Congress should once again explicitly set aside funding for the completion of an evaluative report. This document can and should assess the program by: outlining SNAP OPP’s current requirements; evaluating usage and growth trends; analyzing access gaps and disparities; auditing retailer marketing tactics with regards to unhealthy food options; assessing retailers’ consumer data privacy practices; and conducting an overall assessment of retailers’ compliance with all the guidelines within the SNAP OPP RFV. Finally, the report may recommend updates and improvements to the SNAP OPP RFV itself.

Second, we urge the establishment of a USDA FNS “SNAP Online Data Security Task Force” specifically committed to auditing retailers’ compliance with the data privacy and marketing regulations of the SNAP OPP RFV. The USDA historically has not been an agency focused on developing online technology assets. Its expertise and focus rather lies in supporting, assessing, and collecting data on the country’s vast agricultural system and nutrition programs, to name a few. However, as the SNAP OPP program continues to grow, it will become more important for the agency to invest in digital talent that can manage and best oversee the SNAP OPP program. At the moment, it is unclear the extent to which the SNAP OPP team monitors companies for potential violations of data privacy rules, and the degree to which there are continual inspections. For example, while SNAP OPP rules do require that websites have their privacy policies available on their website, pages on a website can change over time, as can the information listed on the page. Internet retailers may also share or sell information about customers and never disclose this information to the USDA or other entities. As such, a certain level of enforcement and monitoring of participating SNAP OPP retailers would be beneficial for this program and better center the interest of SNAP participants in program design. This proposed SNAP Online Data Security Task Force can regularly report to the USDA and

Congress on the topics of consumer data privacy and marketing practices. Additionally, it can report any retailers to the FTC that might be in violation of the SNAP OPP guidelines or of retailers' own privacy policies.

In addition to creating these reporting and “watchdog” entities, further enforcement authority would be beneficial. Therefore, our third recommendation is the expansion of the FTC Act's enforcement capacity so that the agency would be able to litigate violations of the USDA SNAP OPP RFV if/when situations arise. Lastly, we recommend that Congress mandates that both the FTC and FNS collaboratively develop joint privacy policy guidelines for the entire digital food retail marketplace. This could include punitive enforcement protocols that do not negatively impact customers but rather monitor and enforce proper private sector behavior.

Overall, the SNAP OPP program has the potential to improve food access. However, without proper data security measures, possible risks emerge, such as targeted marketing and data security issues. By comparing SNAP OPP to existing data privacy frameworks like the GDPR and CCPA, many insights for program improvements can be gleaned. Implementing these recommendations can increase the security of this program and make it safer and more equitable for SNAP customers across the country.

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Hungry for Change: Retail Discounters and Food Deserts in America

Connor Nolan & Sandro Steinbach

Introduction

Dollar stores are growing at a historic rate. If a large retail store were to open at this very moment in the United States, there is a 45% chance it would be a dollar store.⁴¹¹ More specifically, there is a one in three chance that the store will be a Dollar General.⁴¹² Many of these stores will inevitably open in low-income urban and highly rural areas. In the words of Dollar General Chief Executive Todd Vasos, the ongoing financial decline in these areas is “continuing to create more of [dollar stores’] core customer.”⁴¹³ Our research shows that when dollar stores enter a census tract area, they cause an exit of independent grocers and adversely affect retail employment.⁴¹⁴ The exit of independent grocers leads to many adverse welfare effects including, but not limited to: decline in the quality and quantity of jobs, loss of access to fresh, healthy food, and a loss of local purchasers for farmers.

The most appropriate antitrust tool to address the welfare problems caused by dollar store entry is a revival of the Robinson-Patman Act. Enforcing the Robinson-Patman Act will promote healthy competition, require no modification of existing statutes or case law, nor lead to a judicial backlog, while serving an essential deterring function. Enforcement of the Robinson-Patman Act alone will not be enough to erase the adverse welfare effects caused by the exit of independent grocers. Changes to the USDA’s Supplemental Nutrition Assistance Program (SNAP) should heighten eligibility requirements that stores must meet and create a new category of store, which we term a SNAP Superstore. Finally, subsidies should be increased for fruits and vegetables and cut for crops like corn, soy and wheat.

II. Statistical Analysis

This section first details the trend of dollar store growth and independent grocer exit since 1991. Next, we show the employment changes resulting from dollar store growth and independent grocer exit. Then, we estimate the effects of dollar store entry on independent grocer exit and employment. Data in this section is aggregated establishment-level data from the National Establishment Time Series (“NETS”) from 1991 to 2019.⁴¹⁵ We follow the USDA-ERS rural-

⁴¹¹ Nathaniel Meyersohn, *Nearly 1 in 3 new stores opening in the US is a Dollar General*, CNN BUSINESS, <https://www.cnn.com/2021/05/06/business/dollar-store-openings-retail/index.html> (May 6, 2021).

⁴¹² *Id.*

⁴¹³ See Sarah Nassauer, *How Dollar General Became Rural America’s Store of Choice*, NY TIMES (Dec. 15, 2017), <https://www.wsj.com/articles/how-dollar-general-became-rural-americas-store-of-choice-1512401992>.

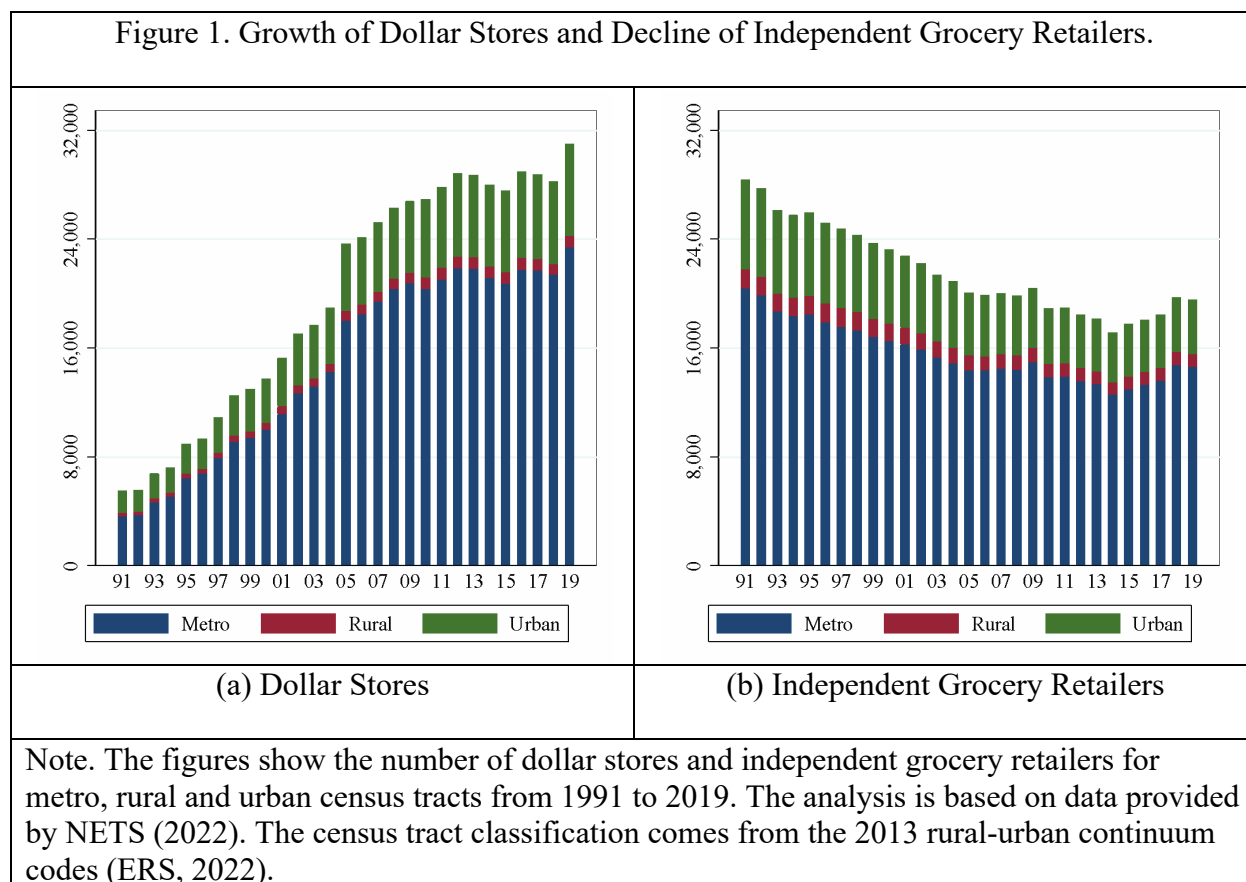
⁴¹⁴ See *infra* Section II.C.

⁴¹⁵ We define dollar stores as all food retail outlets that contain “dollar” in the establishment name.

urban continuum codes to classify all census tracts according to population size, the degree of urbanization, and the adjacency to metro areas.

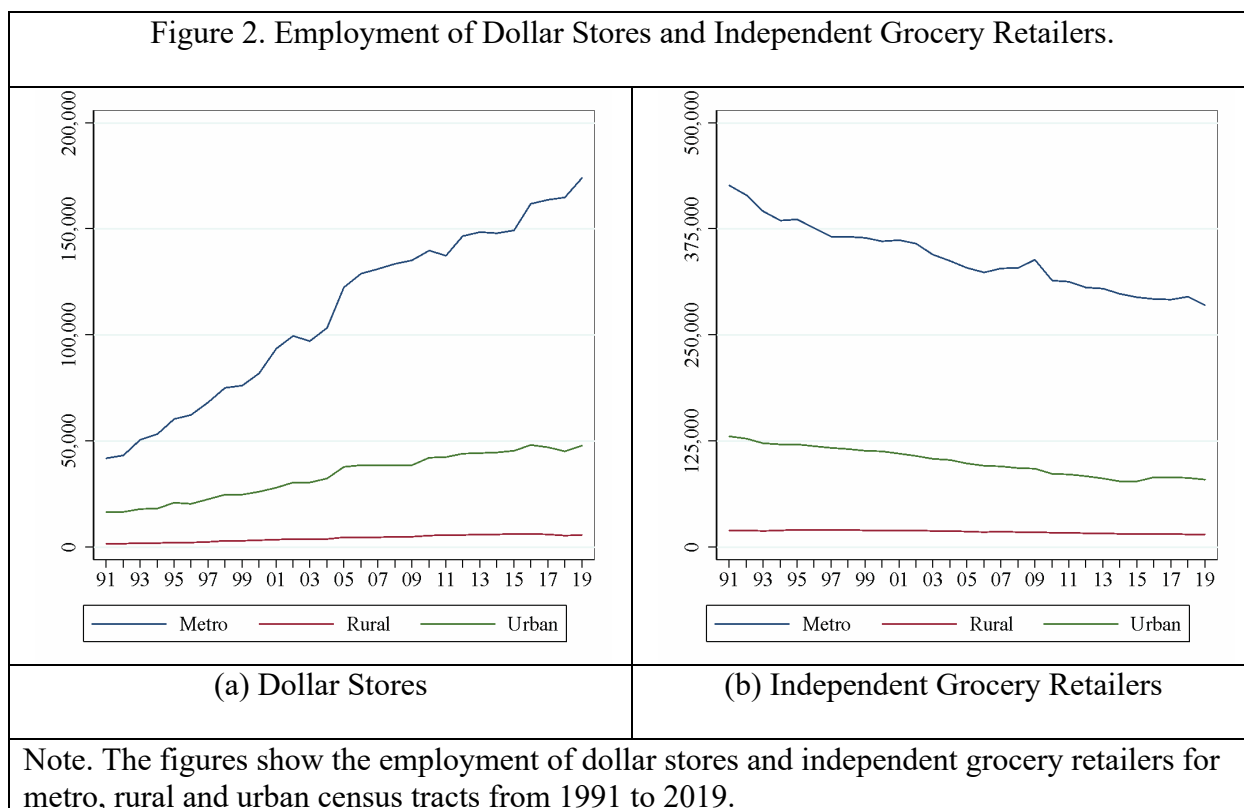
A. Dollar Store Growth and Independent Grocer Exit

Dollar stores have grown substantially over the last three decades, while independent grocery retailers have declined dramatically during the same period. Figure 1 compares the growth of dollar stores with the decline of independent grocery retailers across metro, rural, and urban census tracts from 1991 to 2019. The data indicate that a rise in dollar stores coincides with a decline of independent grocers in rural and urban census tracts. Dollar stores grew most in metro and rural census tracts, while the decline of independent grocery retailers was most pronounced in rural and urban communities. Since 1991, the number of dollar stores grew from less than 6,000 to about 31,000 in 2019, while the number of independent grocers declined from more than 28,000 to about 17,000 until 2014. Since then, the count of independent grocery retailers recovered to about 20,000 in 2019. We find that dollar stores achieved an average annual growth rate of 6.6 percent over that period, accelerating until 2014 and growing slower since then. This growth makes them the fastest-growing food retail format in the United States.



B. Employment Trends

As expected, based on the changes in store type, dollar store employment has grown substantially since 1991, while independent grocer employment has seen a substantial decline. The growth in dollar store employment is more than 30,000 less than the decline in independent grocer employment. Figure 2 shows the change in total employment for dollar stores and compares it with independent grocery retailers. Dollar stores had an active staff of about 60,000 people in 1991, while independent grocers employed about 580,000 people in the same year. Since then, dollar store employment grew steadily and primarily in metro census tracts, reaching about 230,000 in 2019. More than 200,000 jobs were lost for independent grocery retailers during the same period. This decline was most substantial for metro and urban census tracts. Note that while the number of independent grocers increased in recent years in metro areas, this recovery does not translate to additional jobs. Instead, the data show that newly opened grocery retailers employ substantially less personnel than similar existing businesses. The average independent grocer employed about 19 full-time equivalents in 2019; this number is about 7 for dollar stores.



C. Effects of Dollar Store Entry on Independent Grocers and Employment

We use the two-way fixed effects (TWFE) approach to better understand the impact of dollar stores on independent grocery retailers. The baseline model is specified as follows:

$$y_{it} = \exp(\alpha_i + \alpha_t + \beta \text{Dollar}_{it}) \varepsilon_{it}, \quad (1)$$

where i stands for the census tract and t for the year, respectively. The outcome of interest (y_{it}) is the count of independent grocery retailers, their employment, and sales. Note that because the data is left-skewed, we use an exponential regression model to identify the parameters of interest. We control for unobserved time-invariant factors with census-tract fixed effects (α_i) and for common shocks over time with time fixed effects (α_t). We use NETS data for 1990 to 2019 and construct a balanced panel at the census tract level. The variable of interest, Dollar_{it} , represents the first lag of the non-integer count of dollar stores within a given census tract and year. We denote the multiplicate error term with it.

To identify the parameters of interest in Equation 1, we follow standard practice and rely on the Poisson pseudo-maximum likelihood (PML) estimator.⁴¹⁶ Poisson PML is robust to different patterns of heteroskedasticity and measurement error.⁴¹⁷ The estimator also allows us to address the large share of zero observations in the dataset. We account for the high-dimensional fixed effects by using a modified version of the iteratively re-weighted least-squares (IRLS) algorithm robust to statistical separation and convergence issues.⁴¹⁸ Lastly, following standard practice, we suspect that the standard errors are correlated within census tracts, prompting us to cluster them at this level.⁴¹⁹

Dollar store expansion has a substantial impact on independent grocery retailers. Table 1 presents estimates for the entire sample in Panel A and compares them to estimates for metro, rural, and urban census tracts. The results indicate that the count of independent grocers falls by 10 percent with every additional dollar store in a census tract. This exit results in a drop in retail employment by independent grocery retailers by 8 percent and sales by 7 percent. Since the average employment effects are smaller than the treatment effect for the number of independent grocers, one can conclude that smaller outlets are more likely to close in response to dollar store entry. Note that the average treatment effect for sales is smaller than for employment, although being statistically indifferent at conventional levels of statistical significance.

⁴¹⁶ Gail Gong and Francisco J Samaniego, *Pseudo Maximum Likelihood Estimation Theory and Applications*, 9 (4) *Annals of Stat.* 861 (1981); C. Gourieroux, A. Monfrot, and A. Trongon, *Pseudo Maximum Likelihood methods: Applications to Poisson Models*, 52 (3) *ECONOMETRICA* 701 (1984).

⁴¹⁷ J.M.C. Santos Silva and Silvana Tenreyro, *The Log of Gravity*, 88 (4) *REV. OF ECON. AND STAT.* 641 (2006)

⁴¹⁸ Sergio Correia, Paulo Guimarães, and Thomas Zylkin, *Verifying the existence of maximum likelihood estimates in general linear models* (2019), available at <https://arxiv.org/abs/1903.01633>; Sergio Correia, Paulo Guimarães, and Thomas Zylkin, *Fast Poisson estimation with high-dimensional fixed effects*, 20 (1) *STATA J.* 95 (2020).

⁴¹⁹ A.C. Cameron and D.L. Miller, *A Practitioner's Guide to Cluster-robust Inference*, 50 (2) *J. OF HUM. RES.* 317 (2015).

Table 1. Baseline results.			
	Count	Employment	Sales
<i>Panel A: Average treatment effect</i>			
Dollar store count	-0.110***	-0.080***	-0.070**
	(0.008)	(0.015)	(0.032)
Pseudo R-squared	0.193	0.661	0.759
Observations	717,025	717,025	717,025
<i>Panel B: Metro</i>			
Dollar store count	-0.117***	-0.092***	-0.050
	(0.007)	(0.012)	(0.036)
Pseudo R-squared	0.193	0.668	0.768
Observations	542,249	542,249	542,249
<i>Panel C: Rural</i>			
Dollar store count	-0.078***	-0.056**	-0.027
	(0.020)	(0.025)	(0.032)
Pseudo R-squared	0.164	0.585	0.729
Observations	26,952	26,952	26,952
<i>Panel D: Urban</i>			
Dollar store count	-0.092***	-0.057*	-0.117
	(0.019)	(0.030)	(0.082)
Pseudo R-squared	0.187	0.639	0.722
Observations	147,824	147,824	147,824
<i>Note.</i> The table shows the baseline regression results. All regressions include census tract and year fixed effects. Standard errors are clustered at the census tract level. ***, **, and * indicate statistical significance at the 1, 5, and 10 percent levels, respectively.			

The estimated treatment effects vary considerably between metro, rural, and urban census tracts. We find that the impact on independent grocers and their employment is more substantial for metro than for rural and urban areas. Employment is 9 percent lower with every additional dollar store in metro census tracts, while the effect is similar in rural and urban areas, which record a drop of 5 percent. There is limited evidence for significant sales effects for the disaggregated sample. Overall, these estimates point toward considerable heterogeneity in the treatment effects of dollar stores across geographic areas. Dollar store expansion has had a substantial impact on independent grocery retailers that has increased over time. However, considering the overall collapse in the number of such food outlets, the entry and expansion of dollar stores explain only part of this collapse. Other factors also seem to play significant roles in the exit decisions of independent grocers.

Figure 4 shows the estimated exit and employment effects of dollar store expansion from 1991 to 2019. We find that the adverse effects of dollar stores peaked around 2008. The estimates show that dollar store expansion resulted in about 1,500 fewer independent grocery retailers and reduced the overall employment of this grocery retail category by about 24,000.



Market Analysis

Understanding how grocers and dollar stores compete is an essential first step of the problem-solving process. For simplicity's sake, grocers can be said to engage in three different product markets: fresh foods, processed foods, and household goods such as paper towels and soap. Dollar stores compete with grocers in both the processed foods and household good markets. Importantly, dollar stores do not compete with grocers in the fresh food market.

Due to their greater purchasing power and lower marginal costs, dollar stores typically sell processed foods and miscellaneous household goods at lower costs than grocers. Dollar stores have greater purchasing power than grocers and this purchasing power results in them getting the same goods for cheaper prices which suppliers justify by pointing to lower manufacturing and shipping costs. Further, dollar stores do not sell fresh foods which lowers their marginal costs. A dollar store's marginal costs are lower than a grocer's because unlike fresh foods, processed foods do not require refrigeration, do not perish, and tend to have more direct supply chains.

Dollar stores selling processed foods and household goods at lower costs leads to consumers more frequently purchasing these goods at dollar stores. This leaves grocers with two undesirable choices: (a) accept the loss of sales of these items; or (b) match the costs of these nonperishable items and raise the price of fresh foods to effectively subsidize the loss in profits off the items. As our data suggest⁴²⁰, this choice could be more accurately described as the grocer being stuck between Scylla and Charybdis. Neither choice is likely to be successful for the grocer.

Grocers not having a viable economic path to compete against dollar stores on processed foods and household goods ultimately leads to their exit from geographic markets. These same economic factors also make these geographic markets unlikely to see entry from new grocers. The exit of grocers and lack of entry from new competitors leads to geographic markets where consumers are unable to purchase fresh foods.

Negative Welfare Effects due to Grocer Exit

Dollar store entry significantly affects the exit of independent grocers within the same geographic market.⁴²¹ The exit of these grocers creates wide-ranging adverse effects. First, communities where dollar stores enter see a decline in both the quantity and quality of jobs available to them.⁴²² Second, when independent grocers leave, the physical well-being of communities is hurt due to the limited selection of canned and processed foods that dollar stores offer.⁴²³ Third and finally, farmers lose their ability to sell their produce to independent grocers, which may force them out of business or into farming for large distributors and processors.⁴²⁴

A. Loss in Quantity and Quality of Jobs

The entry of dollar stores causes a loss in the quantity and quality of jobs available for residents in those regions. The growth in dollar store employment has not outpaced the loss in independent grocer employment, resulting in an overall loss of jobs.⁴²⁵ An average dollar store employs roughly a third of the number of workers as an average independent grocer.⁴²⁶ However, the overall loss in jobs is only one part of the equation. Dollar stores also have a notorious reputation for providing poor working conditions for their employees, meaning that a loss of quality in jobs also occurs.

⁴²⁰ See *infra* Section II.C.

⁴²¹ See *infra* Section III.A.

⁴²² See *infra* Section III.A.

⁴²³ See *infra* Section III.B.

⁴²⁴ See *infra* Section III.C.

⁴²⁵ See *supra* Section II B.

⁴²⁶ See *supra* Section II B.

Dollar stores overlook the health and safety of their employees while also strategically exploiting federal labor laws to undercompensate their employees. In 2021, Region 4 of the Department of Labor issued a statement condemning the workplace conditions that Dollar General provides for their employees, stating: “Dollar General has a long history of disregarding safety measures to prevent serious injury or death in the event of . . . emergency. . . . [Dollar General’s] troubled history of workplace safety violations must come to an end, and OSHA will make every effort to hold them accountable for their failures.”⁴²⁷ The statement also noted that Dollar General had faced \$3.3 million in proposed OSHA penalties since 2016.⁴²⁸ These macro-level safety trends are often described in harrowing stories from employees and, in some cases, the loved ones of now-deceased former employees.⁴²⁹ Dollar store employees are often exposed to armed robbery, which in some cases can lead to their deaths.⁴³⁰ Employees have routinely called for more significant security measures in the form of security guards, better surveillance systems and lighting, and more employees in the store. These requests are justified and rooted in criminological theories that explain crime is more likely to occur in situations where the criminal is less likely to get caught and sees vulnerable victims, and where there is an absence of a capable guardian to protect the victim.⁴³¹ Despite the requests of their employees, dollar stores have been reluctant and, in some cases, unwilling to adopt these protective measures.⁴³²

Dollar stores exploit weak federal labor laws by working salaried workers long hours and keeping other employees below full-time status to pass healthcare costs on to the federal government. Currently, the Fair Labor Standards Act requires that employees be paid a minimum of \$35,568 per year to qualify as salaried employees who are exempt from overtime requirements, meaning that an employer does not have to pay them for hours they work beyond the typical 40-hour workweek.⁴³³ For example, Dollar General managers are classified as salaried employees, and anecdotal evidence suggests they are paid just above the FLSA minimum.⁴³⁴ Managers have claimed that they often work upward of 70 hours per week.⁴³⁵ If we assume a manager is making a \$40,000 salary and working 70 hours per week, then managers, who are the highest-ranking employees at these stores, make an hourly wage of roughly \$11.00.

⁴²⁷ U.S. Dep’t of Lab., *History of violations: Dollar General continues to put workers at risk; company faces \$321K in penalties after recent Alabama inspection*, (Dec. 13, 2021) <https://www.osha.gov/news/newsreleases/region4/12132021>.

⁴²⁸ *Id.*

⁴²⁹ See, e.g., Leticia Miranda, *Dollar General is thriving. But workers say they pay the price*, NBC NEWS (May 7, 2020), <https://www.nbcnews.com/business/business-news/dollar-general-thriving-workers-say-they-pay-price-n1137096> (Dollar General employees describing dangerous and exploitative working conditions).

⁴³⁰ See Miranda, *supra* note 19.

⁴³¹ See Alec MacGillis, *How Dollar Stores Became Magnets for Crime and Killing*, PROPUBLICA (Jun. 29, 2020), <https://www.propublica.org/article/how-dollar-stores-became-magnets-for-crime-and-killing>.

⁴³² See Miranda, *supra* note 19.

⁴³³ 29 C.F.R. § 541.100

⁴³⁴ See, e.g., Miranda, *supra* note 19.

⁴³⁵ See, e.g., Miranda, *supra* note 19; Dave Jameison, *Join the Booming Dollar Store Economy! Low Pay, Long Hours, May Work While Injured*, HuffPost (Oct. 25, 2013) https://www.huffpost.com/entry/dollar-stores-work_n_3786781.

In addition to poor salaries, dollar stores also avoid offering health insurance to employees by hiring only part-time employees for several jobs within their store.⁴³⁶ The Affordable Care Act mandates that employers offer health insurance to employees working at least 30 hours per week.⁴³⁷ By refusing to give a large number of employees full-time hours, dollar stores pass their health insurance bill on to the government.

B. Physical well-being

The physical well-being of communities is hurt by dollar store entry and independent grocer exit due to the lack of fresh and healthy food that dollar stores offer. These effects are felt most strongly by residents who live in food deserts, a term used to describe places where people lack access to fresh foods due to their location and lack of income.⁴³⁸ An estimated 12.8% of Americans live in census tracts classified as being low-income and having limited access to fresh foods. In these areas, residents must rely on dollar stores for a non-trivial amount of food purchases.⁴³⁹ Continued exit of independent grocers will lead to dollar stores becoming a primary food source for even more Americans. Dollar stores already meet the low threshold required to become SNAP authorized stores⁴⁴⁰, so little to no incentives remain to change their current practices.

C. Loss of local purchasers

The third negative welfare effect of independent grocer exit is the loss of a local purchaser for small farmers. Independent grocers often purchase produce and meat from small, local farmers. When they exit, the farmer loses a key purchaser.⁴⁴¹ As discussed above, dollar stores rarely sell produce and meat.⁴⁴² Even when they do, the purchases are unlikely to come from local producers.⁴⁴³ This change from independent grocers to dollar stores may lead to small, local

⁴³⁶ Due to limited evidence, this statement is based on anecdotal evidence found in reviews by current and former employees on both Indeed and Glassdoor, websites that allow employees to leave reviews about their employer. See <https://www.glassdoor.com/Reviews/Dollar-General-Reviews-E1342.htm>; <https://www.indeed.com/cmp/Dollar-General/reviews>.

⁴³⁷ Patient Protection and Affordable Care Act of 2010, Pub. L. No. 111–148, 124 Stat. 119 (2010)

⁴³⁸ Alana Rhone et al., *Low-Income and Low-Supermarket Access Census Tracts, 2010-2015*, U.S. Dep’t of Agriculture, <https://www.ers.usda.gov/webdocs/publications/82101/eib-165.pdf?v=3395.3>.

⁴³⁹ Lauren Chenarides et al., *Dollar Stores and Food Deserts*, APPLIED GEOGRAPHY 134 (2021)

⁴⁴⁰ The requirements to become a SNAP authorized store can be found at <https://www.fns.usda.gov/snap/retailer/eligible>.

⁴⁴¹ See, e.g., Lisa Bates, Courtney Long and Bre Miller, *Local Food Supply Chains: connections between independently owned processors and grocers*, https://www.agmrc.org/media/cms/FINAL_Local_Food_Supply_Chains_Repo_AE6B0A1959336.pdf.

⁴⁴² See Tom Karst, *Communities telling dollar stores to get fresh or don’t bother*, The Packer (Dec. 23, 2019) <https://www.thepacker.com/opinion-news/retail/communities-telling-dollar-stores-get-fresh-or-dont-bother> (“publicity about dollar stores adding fresh produce may be overstated. . . . 650 Dollar General locations will sell produce, but that is still only just 4.1% of the company’s 16,000 stores.”).

⁴⁴³ See Rachel Knapp, *Albuquerque woman gets local produce into Dollar Store*, KRQE (Feb. 25, 2020) <https://www.krqe.com/news/albuquerque-metro/albuquerque-woman-gets-local-produce-into-dollar-general/>

farmers being forced to sell to large wholesalers and processors. Selling to wholesalers and processors is often undesirable for small farmers because they often lack the economies of scale necessary to be profitable when selling to large distributors and processors.⁴⁴⁴

Antitrust Analysis

Section III of this paper established the harms that go hand-in-hand with the growth of dollar stores. To begin this section, we provide a brief background on the development of American antitrust laws. Next, we examine how the public and Biden administration view economic concentration and whether there is a need for more vigorous antitrust enforcement. Finally, we propose that federal enforcers revive enforcement of the Robinson-Patman Act to address the adverse welfare effects shown in Section III.

A. Background

The original goal of the Sherman Act and subsequent antitrust legislation was the preservation of competition.⁴⁴⁵ At the time of the Sherman Act's passage in 1890, concerns around economic concentration were not solely focused on the price and quantity of goods available to consumers.⁴⁴⁶ Legislators were also rightfully concerned about low wages for employees, losses to small businesses, and other forms of economic oppression.⁴⁴⁷ With these problems in mind, Congress overwhelmingly passed the Sherman Act by a vote of 52 to 1 in the Senate, and 242 to 0 in the House of Representatives.⁴⁴⁸ The passage of the Sherman Act marked the beginning of American antitrust enforcement.

While 132 years have passed since the passage of the Sherman Act, the views of many Americans toward economic concentration have not changed. Most Americans still see the economy as being unfairly favorable to the interests of the economically powerful.⁴⁴⁹ A majority of citizens also favor federal action to reign in concentrated areas of our economy, such as big tech.⁴⁵⁰ And while public polling is non-existent when it comes to the feelings of Americans

(Detailing a New Mexico farmer who fought to get her local dollar general to buy her produce and goods. This was the first account of a Dollar General working with low farms).

⁴⁴⁴ See generally Michael Duffy, *Economies of Size in Production Agriculture*, 4 J. HUNGER ENVIRON. NUTR. 375 (2009), available at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3489134/pdf/when4_375.pdf.

⁴⁴⁵ Barak Orbach, *How Antitrust Lost Its Goal*, 81 FORDHAM L. REV. 2253, 2256 (2013)

⁴⁴⁶ *Id.* 2262

⁴⁴⁷ *Id.*

⁴⁴⁸ *Id.* at 2259.

⁴⁴⁹ See, e.g., Ruth Igielnik, *70% of Americans say U.S. economic system unfairly favors the powerful*, PEW RESEARCH (Jan. 9, 2020), <https://www.pewresearch.org/fact-tank/2020/01/09/70-of-americans-say-u-s-economic-system-unfairly-favors-the-powerful/> (“Seven-in-ten U.S. adults say the economic system in their country unfairly favors powerful interests”).

⁴⁵⁰ See John D. McKinnon, *Voters Want to Curb the Influence of Big Tech Companies, New Poll Shows*, WALL STREET JOURNAL (Sept. 23, 2021) <https://www.wsj.com/articles/voters-want-to-curb-the-influence-of-big-tech-companies-new-poll-shows-11632405601> (“83% of Democrats and 78% of Republicans—agreed the federal

toward the prolific growth of dollar stores, a breadth of anecdotal evidence makes it likely that a majority of Americans would also favor federal action to curtail their growth.⁴⁵¹ The stark contrast between what antitrust currently addresses and what Americans would like antitrust legislation to address represents an inflection point filled with opportunity.

In 2021, President Biden took his first step toward seizing this opportunity, issuing an Executive Order directed at addressing excessive concentration in the American economy.⁴⁵² The order affirmed that the position of the Biden Administration is to enforce antitrust laws to combat excessive concentration, specifically in areas where labor, agriculture, and healthcare are affected.⁴⁵³ With history, public opinion, and the executive office supporting greater antitrust enforcement, we propose that federal enforcers take the lead in addressing the growth of dollar stores by reviving enforcement of the Robinson-Patman Act. To achieve this revival, federal enforcers should first investigate possible Robinson-Patman Act violations occurring between suppliers and competing retailers and then target enforcement efforts where necessary.

B. Reviving the Robinson-Patman Act

Signed into law in 1936, the Robinson-Patman Act aimed to limit the power of dominant retailers and grocers such as Sears and A&P by prohibiting price discrimination between buyers that may substantially injure, lessen, or prevent competition.⁴⁵⁴ Despite never being repealed, public enforcement of the Robinson-Patman Act has been virtually non-existent in the past 50 years due to a popular but misguided view among some academics, enforcers, judges, and politicians that the Act's enforcement will lead to inefficiency and the protection of individual competitors rather than the competitive process.⁴⁵⁵ The Department of Justice has not filed a

government “needs to do everything it can to curb the influence of big tech companies . . .”); Emily A. Vogels, *56% of Americans support more regulation of major technology companies*, PEW RESEARCH (July 20, 2021) <https://www.pewresearch.org/fact-tank/2021/07/20/56-of-americans-support-more-regulation-of-major-technology-companies/> (“55% say that even if major technology companies follow the rules, the government should *not* allow these companies to grow beyond a certain size because it hurts competition.”).

⁴⁵¹ See, e.g., Chris McGreal, *Where even Walmart won't go: how Dollar General took over rural America*, THE GUARDIAN (Aug. 13, 2018) <https://www.theguardian.com/business/2018/aug/13/dollar-general-walmart-buhler-haven-kansas> (Examining how a small town mayor in Buhler, Kansas, a heavily Republican town, fought to keep a Dollar General from entering); Zoha Mian, *The West End in Louisville needs access to fresh food. How dollar stores exploit hardship*, COURIER JOURNAL (Oct. 27, 2021), <https://www.courier-journal.com/story/opinion/2021/10/27/dollar-stores-exploit-hardship-what-west-end-needs-fresh-food/6107403001/> (Opinion by Louisville resident that city should enact policies to limit growth of dollar stores and support local grocers); Leticia Miranda, *Dollar General is thriving. But workers say they pay the price*, NBC NEWS (May 7, 2020), <https://www.nbcnews.com/business/business-news/dollar-general-thriving-workers-say-they-pay-price-n1137096> (Dollar General employees describing dangerous and exploitative working conditions).

⁴⁵² Exec. Order No. 14036 on Promoting Competition in the American Economy, 86 Fed. Reg. 36,987 (July 9, 2021).

⁴⁵³ *Id.*

⁴⁵⁴ 15 U.S.C. § 13.

⁴⁵⁵ See, e.g., Roger D. Blair, Christina DePasquale, “*Antitrust’s Least Glorious Hour*”: *The Robinson-Patman Act*, 57 J.L. & Econ. 201 (2014) (Massively influential but equally maligned antitrust scholar Robert Bork considered the Robinson-Patman Act to be “antitrust’s least glorious hour.”).

Robinson-Patman case since 1972, and the Federal Trade Commission has filed just one case in the last thirty years.⁴⁵⁶ Federal agencies should resume enforcement of the Robinson-Patman Act because public enforcement: (a) promotes healthy competition; (b) requires no modifying of existing statutes or case law; (c) will not lead to an increase in private cases; and (d) serves as an essential deterrent. The process of resuming enforcement should begin with an inquiry by the Federal Trade Commission (“FTC”)⁴⁵⁷ into possible Robinson-Patman Act violations between suppliers and competing retailers.

1. The FTC Should Revive Enforcement of the Robinson-Patman Act Because Enforcement Preserves Healthy Competition, Requires No Modification of Existing Statutes or Case Law, Will Not Lead to Judicial Backlog, and Will Serve as an Important Deterrent.

Enforcing the Robinson-Patman Act preserves healthy competition by allowing the “invisible hand” of consumer demand to determine the winners and losers of the marketplace rather than allowing a large retailer’s purchasing power to be the be-all, end-all of competition.⁴⁵⁸ Without enforcement of the Robinson-Patman Act, suppliers to dollar stores and independent grocers are free to engage in secondary-line price discrimination.⁴⁵⁹ Secondary-line price discrimination occurs when a supplier sells its products to a dollar store at lower prices than the grocer for reasons that cannot be justified by the supplier’s diminished costs in manufacturing or shipping and delivering the higher quantity of goods.⁴⁶⁰ Suppliers are also allowed to make price concessions to large buyers when the concession is to match or beat a competitor’s similarly low price toward the buyer.⁴⁶¹ Since suppliers can make price concessions to more significant purchasers when they are economically justified, concerns around the Robinson-Patman Act leading to an inefficient marketplace are misguided. Instead, our concern should be on where continued failure to enforce the Robinson-Patman Act will lead.

Failure to enforce the Robinson-Patman Act in the scenario of grocers and dollar stores will ultimately lead to geographic markets with no competition. Dollar stores intentionally enter geographic markets where competition is already sparse⁴⁶², and their entry leads to the elimination of competition in the form of grocers.⁴⁶³ Markets without competition ultimately lead to higher consumer prices due to a lack of pricing competition and the need for innovation.⁴⁶⁴ By

⁴⁵⁶ See Blair & Durrance, *supra* note 45 at 393.

⁴⁵⁷ Due its history of greater involvement with the Robinson-Patman Act, and for the purposes of brevity, we will proceed with the Federal Trade Commission acting as the primary enforcer of the Robinson-Patman Act.

⁴⁵⁸ See Keith Leffler & Ted Tatos, *Competitive Injury and Damages Under the Robinson-Patman Act: Morton Salt and Statistical Analysis*, 60 (4) THE ANTITRUST BULLETIN 318, 322 (2015).

⁴⁵⁹ See Blair & Durrance, *supra* note 45 at 393.

⁴⁶⁰ Federal Trade Commission v. Morton Salt Co., 334 U.S. 37, 43 (1948).

⁴⁶¹ *Id.*

⁴⁶² See Nassauer, *supra* note 3.

⁴⁶³ *Supra* section II.C.

⁴⁶⁴ See Heather Boushey and Helen Knudsen, The Importance of Competition for the American Economy, <https://www.whitehouse.gov/cea/written-materials/2021/07/09/the-importance-of-competition-for-the-american-economy/#:~:text=Basic%20economic%20theory%20demonstrates%20that,greater%20variety%2C%20and%20mor>

enforcing the Robinson-Patman Act, the FTC will preserve healthy competition and keep consumer prices low.

Federal enforcement of the Robinson-Patman Act requires no modification to existing statutes or case law. When Congress amended § 2(a) of the Clayton Act through its passage of the Robinson-Patman Act, it intended to create an enforcement statute that was stronger and less susceptible to judicial narrowing than the original.⁴⁶⁵ Congress’s efforts to create a more robust enforcement statute came to fruition in *Morton Salt*, when the Supreme Court issued an enforcement-friendly opinion that the Robinson-Patman Act does not require federal enforcers to find that injury from alleged price discrimination occurred, but instead only requires a lesser burden of proving that the price discrimination may substantially destroy, injure, lessen, or prevent competition.⁴⁶⁶ While subsequent cases have chipped away at the viability of bringing private Robinson-Patman Act suits under § 4 of the Clayton Act, case law for public enforcers has remained unbothered.⁴⁶⁷ Public enforcement of the Robinson-Patman Act will serve the prophylactic purpose of § 2(a) of the Clayton Act, allowing businesses to obtain injunctive relief in the form of fair purchasing conditions. Still, it will not lead to a widespread judicial backlog in the form of private lawsuits.

An increase in public enforcement of Robinson-Patman claims will not coincide with a rise in private enforcement due to high evidentiary burdens that plaintiffs must meet to prove damages. Private lawsuits under the Robinson-Patman Act are filed under § 4 the Clayton Act, which allows plaintiffs to obtain monetary damages when a violation of antitrust laws has injured them.⁴⁶⁸ This means that a private plaintiff would first need to prove a violation of antitrust law – in this case, the Robinson-Patman Act – and if a violation is found, the plaintiff must then be able to prove damages. As previously discussed, *Morton Salt* made the first step relatively easy to achieve. However, *J. Truett Payne Co. v. Chrysler Motors Corp.*⁴⁶⁹ made the second part of this process more difficult. There, the Supreme Court stated that for a private plaintiff to recover damages for a Robinson-Patman claim, they must prove damages that have been incurred due to discriminatory pricing as opposed to the previously more lenient standard where plaintiffs only needed to prove the amount of the discrimination.⁴⁷⁰ The court reasoned that § 4 of the Clayton Act served a remedial purpose, as opposed to § 2’s prophylactic purpose.⁴⁷¹ Whether this increased burden is ultimately a positive change is beyond the scope of this paper. Still,

e%20innovation; see also Exec. Order No. 14036 on Promoting Competition in the American Economy, 86 Fed. Reg. 36,987 (July 9, 2021)(“[A] competitive marketplace . . . means lower prices.”)

⁴⁶⁵ See Mark A Glick et. al, *Towards a More Reasoned Application of the Robinson-Patman Act: A Holistic View Incorporating Principles of Law and Economics in Light of Congressional Intent*, 60 (4) ANTITRUST BULLETIN 279, 282 (2015)(“Thus, enactment of the RPA was motivated by concerns that the price discrimination provisions of the Original Clayton Act section 2 had been effectively gutted by judicial interpretation.”).

⁴⁶⁶ *Federal Trade Commission v. Morton Salt Co.*, 334 U.S. 37, 43 (1948); see also *Volvo Trucks North America, Inc. v. Reeder-Simco GMC, Inc.*, 546 U.S. 164, 177 (2006)(reaffirming the holdings of *Morton Salt*).

⁴⁶⁷ See *Leffler & Tatos*, *supra* note 48 at 320; see also *Blair and Durrance*, *supra* note 45 at 395.

⁴⁶⁸ 15 U.S.C. § 15.

⁴⁶⁹ 451 U.S. 557 (1981).

⁴⁷⁰ *Id.* at 562.

⁴⁷¹ *Id.*

undoubtedly, this increased burden makes it very difficult for a private plaintiff to succeed.⁴⁷² This counterbalancing difficulty of bringing private Robinson-Patman Act suits ensures that public enforcement can serve its purpose in obtaining objective relief for injured competitors and deterring illegal activity without backlogging the judicial system.

The final purpose that public enforcement of the Robinson-Patman Act will serve is one of deterrence. Currently, suppliers engaging in price discrimination have no concerns about enforcement from federal agencies and very little concern about facing private lawsuits due to difficulties private plaintiffs face in proving damages.⁴⁷³ Resumption of federal enforcement will put suppliers on notice that engaging in price discrimination may lead to a costly lawsuit, shifting the cost-benefit analysis of this conduct back toward one of legal conduct.

All in all, federal enforcement of the Robinson-Patman Act will lead to a healthier competitive marketplace where accurate measures of consumer preference will be considered rather than only the measure of price, which can be skewed illegally in favor of large purchasers. Federal enforcement of the Act is attainable due to enforcer-friendly precedent but will not spill over into private lawsuits due to stricter precedent on proving damages. Enforcement will allow injured competitors to obtain injunctive relief and serve an essential role in deterring illegal price discrimination, a deterrence that is entirely absent from today's jurisprudence. The revival of federal enforcement should begin with an inquiry to explore the extent to which suppliers are engaging in discrimination between buyers.

2. To Begin this Revival, The FTC Should Launch an Inquiry to Explore Extent of Discrimination

The FTC has the power to launch any inquiries necessary to fulfill its antitrust enforcement duties.⁴⁷⁴ Inquiries allow the FTC to gather information from and investigate businesses, organizations, or individuals.⁴⁷⁵ To achieve its goals, the FTC is authorized to subpoena any testimony or documents it believes are necessary to determine whether anticompetitive conduct is occurring.⁴⁷⁶

In the case of dollar stores and independent grocers, the FTC should launch an inquiry to explore the extent to which suppliers engage in secondary-line price discrimination between dollar stores and independent grocers. In addition to investigating the extent of secondary-line price discrimination, the FTC should also look into whether suppliers are engaging in packaging and

⁴⁷² See Leffler & Tatos, *supra* note 48 at 324 (arguing that rejection of the Morton Salt inference of competitive injury “resulted in a near-impossible burden of finding empirical evidence of the competitive injury”).

⁴⁷³ See *supra* Section IV.B.

⁴⁷⁴ 15 U.S.C. § 43.

⁴⁷⁵ 15 U.S.C. § 46(a).

⁴⁷⁶ 15 U.S.C. § 49.

product supply discrimination.⁴⁷⁷ Information learned from this inquiry will guide enforcement efforts where necessary.

Policy Solutions

Enforcing the Robinson-Patman Act alone will not be enough to slow the exit of independent grocers. Instead, policy changes will also need to be enacted. This paper proposes two main policy solutions. First, changes to the SNAP program could increase availability of healthy foods and encourage consumer spending at grocers. Second, the USDA should subsidize more fruits and vegetables and less corn, sugar, and wheat.

A. SNAP Changes

1. Requirements that Stores Must Meet to Become a SNAP Authorized Store Should be Increased

The first SNAP related solution we propose is to increase the requirements that stores must meet to become a SNAP authorized store. As it stands, 42 million Americans currently use SNAP benefits,⁴⁷⁸ and SNAP users rely on dollar stores for a non-trivial share of their food purchases.⁴⁷⁹ Changing the requirements that SNAP authorized stores must meet could change the amount of healthy foods available for many consumers. Changes to SNAP authorization requirements could come in two ways. First, the staple food variety threshold that stores must meet to qualify as a SNAP store could be increased. However, since this solution has already been tried, we also propose an alternative solution: increasing the nutritional value that foods must meet to qualify as a SNAP food item.

Increasing the variety threshold that stores must meet to become SNAP authorized was previously attempted in 2014, but much like the Robinson-Patman Act, has not been enforced.⁴⁸⁰ Currently, the requirement that most stores meet to become SNAP authorized is having three packages of three different varieties of staple food categories.⁴⁸¹ The four staple food categories

⁴⁷⁷ This paper is primarily focused on price discrimination. For further discussion on packaging and product supply discrimination, see National Grocers Association, *Buyer Power and Economic Discrimination in the Grocery Aisle: Kitchen Table Issues for American Consumers*, available at <https://www.nationalgrocers.org/wp-content/uploads/2021/03/NGA-Antitrust-White-Paper25618.pdf>.

⁴⁷⁸ *The 42 Million Americans Who Receive SNAP Benefits Are Set To Get \$36 More A Month*, NPR (Aug., 22 2021), <https://www.npr.org/2021/08/22/1030099959/the-42-million-americans-who-receive-snap-benefits-are-set-to-get-36-more-a-month>.

⁴⁷⁹ Lauren Chenarides et al., *Dollar Stores and Food Deserts*, APPLIED GEOGRAPHY 134 (2021).

⁴⁸⁰ <https://www.ers.usda.gov/amber-waves/2014/july/2014-farm-act-maintains-snap-eligibility-guidelines-and-funds-new-initiatives/>

⁴⁸¹ <https://www.fns.usda.gov/snap/retailer/eligible>.

are vegetables or fruits, dairy products, meat, poultry or fish, and breads or cereals.⁴⁸² As it stands, a store could meet these requirements without offering many healthy foods. The following example is one way a store could meet current stocking requirements:

- Fruits/veggies: three bananas, three bags of tater tots, and three cans of tomato soup
- Meat/seafood: three beef jerky sticks, three boxes of frozen chicken wings, and three packages of deli meat
- Dairy: three jars of alfredo sauce, three gallons milk, and three packages of string cheese
- Grains: three boxes of sugary cereal, three loaves of white bread, and three boxes of macaroni and cheese

This low threshold of three varieties allows stores to become SNAP authorized despite not offering healthy foods. To increase the availability of healthy foods, the variety amount could be increased to seven, as proposed in the 2014 farm bill.⁴⁸³ The reason that the variety amount of seven has not been enforced was due to stores' inability to meet this requirement, with one major hiccup being the definition of variety.⁴⁸⁴ In its current form, the term variety would exclude fresh oranges and orange juice, or chicken breast and chicken thighs, from being considered as two varieties., or chicken breast and chicken thighs being two different.⁴⁸⁵ This specific portion of the rule could be changed to allow differing products from the same food type to fulfill more than one variety.

The second solution would be to keep the current requirement of three varieties of each staple food category but be stricter about the foods that qualify. For example, fruits could be required to have no added sugars, thereby making the fruit be a fresh or frozen option in its raw form. Similarly, the grain category could also have a maximum amount of added sugar to qualify. Vegetables could have a sodium limit to prevent unhealthy, highly processed vegetable products from being used to qualify as one of the three items. The risk behind this solution is that some stores may stop accepting SNAP, which could increase food insecurity.

2. SNAP Superstores should be created to increase consumer spending at stores that offer healthy food options

The second SNAP solution is the creation of "SNAP Superstores" where SNAP users will receive a percentage discount⁴⁸⁶ for all products purchased at the store, which the government reimburses directly to the SNAP user. In order for a store to qualify as a SNAP Superstore, the

⁴⁸² *Id.*

⁴⁸³ Victor Oliveira, Mark Prell and Laura Tiehen, Eligibility Requirements for SNAP Retailers: Balancing Access, Nutrition, and Integrity, USDA ERS (Jan. 25, 2018), <https://www.ers.usda.gov/amber-waves/2018/januaryfebruary/eligibility-requirements-for-snap-retailers-balancing-access-nutrition-and-integrity/>.

⁴⁸⁴ Jamie Grey, Lee Zurik and Daniela Molina, *Gas stations, liquor stores allowed to snap up benefit money without providing extensive healthy food options*, KY3 (Jul. 19, 2021), <https://www.ky3.com/2021/07/19/gas-stations-liquor-stores-allowed-snap-up-benefit-money-without-providing-extensive-healthy-food-options/>.

⁴⁸⁵ *Id.*

⁴⁸⁶ For example, a discount could be 15% off of all qualifying EBT purchases at the SNAP superstore. If the customer spent \$100, they would spend the \$100 and then be reimbursed the \$15 discount onto their card.

store would be required to sell a greater amount of produce than current SNAP standards, pay employees a wage commensurate to a living wage in their geographic market⁴⁸⁷, and source a specified amount of products from local suppliers. The idea behind this would be to encourage consumer shopping at SNAP superstores. As it stands, independent grocers would be more likely to qualify as a SNAP superstore. However, by implementing this program, the federal government would likely induce behavioral changes from dollar stores.

B. Changes to the USDA's Subsidy Funding

The USDA should increase subsidy funding for fruits and vegetables while cutting back their subsidization of corn, soy, and wheat. Currently, the majority of the USDA's subsidies are aimed toward corn, soybeans, wheat, rice, sorghum, dairy and livestock.⁴⁸⁸ Many of these subsidized commodities, most notably corn and wheat, end up being turned into unhealthy, processed foods. In fact, more than half of all calories consumed by nonelderly American adults during a 6-year period from 2001 to 2006 originated from subsidized food commodities.⁴⁸⁹ Greater consumption of these commodities leads to increased cardiometabolic risk and other negative health effects.⁴⁹⁰ Poorer and less food-secure individuals eat a disproportionate amount share of these subsidized food commodities.⁴⁹¹

Increasing subsidies for fruits and vegetables will lower costs for consumers, which should increase consumer well-being and improve the economic outlook of grocers. As it stands, processed foods are frequently cheaper than their fresh food counterparts on a per calorie basis.⁴⁹² This price difference is even greater when applied to dollar stores and grocers. If fruits and vegetables become cheaper due to subsidies, this may lead to increased purchasing and consumption. Greater purchasing of fruits and vegetables will help grocers and, in some cases, may cause behavioral changes from dollar stores who find selling fruits and vegetables to be more profitable.

Arguments against these changes to subsidies will likely come in two forms: (1) concerns about raised costs of products that currently include subsidized commodities; and (2) government overreach. First, opponents of this change will argue that decreasing subsidies for corn, soy and wheat will raise their cost. However, these products are already very cheap to begin with, which explains the widespread proliferation of ingredients like high fructose corn syrup and enriched wheat flour in American food products like cereal, breads and frozen foods. Further, a significant price increase is unlikely because large cuts to these subsidies are not necessary to properly

⁴⁸⁷ Determining what constitutes a "living wage" will be difficult, however programs such as the military's BAH show that these calculations can be achieved. Generally speaking, the wage should be able to cover housing, medical expenses, and other necessities like food.

⁴⁸⁸ Karen R. Siegel et al., *Association of Higher Consumption of Foods Derived From Subsidized Commodities With Adverse Cardiometabolic Risk Among US Adults*, JAMA I. MED. 1124 (2016).

⁴⁸⁹ *Id.*

⁴⁹⁰ *Id.*

⁴⁹¹ *Id.*

⁴⁹² *Id.*

subsidize fruits and vegetables. For example, under the 2014 Farm Bill a 1% cut from corn and soy subsidies applied to fruits and vegetables would have increased the amount of fruit and vegetable subsidies by 11%.⁴⁹³ It would not take significant cuts to accomplish strong support for fruits and vegetables.

Second, opponents to these changes may argue that changes to subsidy funding would constitute government overreach into the free market. However, the federal government is already actively participating in the food market with its heavy-handed subsidization of crops like corn, soy and wheat. Since 1995, corn subsidies have totaled more than \$116 billion.⁴⁹⁴ Wheat subsidies have totaled more than \$48.4 billion.⁴⁹⁵ If the federal government can make an active decision to prop up these markets, why can they not do the same for fruits and vegetables that would improve the well-being of Americans, while also promoting the sale of healthy foods?

Conclusion

The entry of dollar stores has a statistically significant effect on the exit of independent grocers. The growth of dollar stores and loss of independent grocers leads to many adverse welfare effects. Communities suffer a net loss in jobs and the limited new jobs offered by dollar stores are undesirable due to low compensation and poor working conditions. The physical well-being of communities is hurt because dollar stores sell little to no fresh produce and offer a narrow range of canned and processed food. Farmers lose a local purchaser which may force them out of business or into undesirable contracts.

A revival of public enforcement of the Robinson-Patman Act paired with other policy changes to the USDA's SNAP and subsidy programs are the best way to address these adverse welfare effects. Reviving public enforcement of the Robinson-Patman Act will preserve healthy competition, require no modification to existing statutes or case law, not lead to an increase in private cases, and serve as an essential deterrent. The process of resuming enforcement should begin with an inquiry by the Federal Trade Commission into possible Robinson-Patman Act violations between suppliers and competing retailers. SNAP eligibility requirements should be heightened, and a SNAP Superstore program should be created. Finally, subsidies should be increased for fruits and vegetables and cut for crops like corn, soy and wheat.

⁴⁹³ Tamar Haspel, *Farm bill: Why don't taxpayers subsidize the foods that are better for us?*, THE WASHINGTON POST (Feb. 18, 2014), https://www.washingtonpost.com/lifestyle/food/farm-bill-why-dont-taxpayers-subsidize-the-foods-that-are-better-for-us/2014/02/14/d7642a3c-9434-11e3-84e1-27626c5ef5fb_story.html.

⁴⁹⁴ Tara O'Neill Hayes, Katerina Kerska, PRIMER: Agriculture Subsidies and Their Influence on the Composition of U.S. Food Supply and Consumption, American Action Forum <https://www.americanactionforum.org/research/primer-agriculture-subsidies-and-their-influence-on-the-composition-of-u-s-food-supply-and-consumption/#:~:text=Subsidies%20for%20corn%E2%80%94the%20most,billion%20over%20that%20same%20period.>

⁴⁹⁵ *Id.*

An Empirical Assessment of the Relationship between Food Retail Market Concentration and Racial/Ethnic Inequities in Food Swamp Exposure

Qianxia Jiang, Sandro Steinbach & Kristen Cooksey Stowers

Introduction

Differences in food access can affect people's dietary intake and weight.¹ An inequitable neighborhood-level food environment has been characterized by food deserts (i.e., areas with little access to healthful food) in the literature and food swamps (i.e., geographic areas where relative access to less healthy food retailers is higher). Both neighborhood environment conditions have long been identified as one possible driver of the obesity epidemic and other diet-related health issues among adults and children in the United States (U.S.).²⁻⁵

Neighborhood food environments are commonly measured by “objective” measures such as geospatial measurements and store audits.⁶ The Geographic Information Systems (GIS) is used to characterize the attributes of the community/neighborhood food environment by measuring the proximity or density of food outlets. GIS-based measurement explores the spatial accessibility of food.^{6,7} Most large-scale studies that examine U.S. food environments have used the National Establishment Time Series (NETS) dataset from Walls & Associates.⁸

The market structure of U.S. food retailing is changing rapidly, both in rural and urban areas.⁹ This trend has significantly impacted retail competition and the healthfulness of consumer choices. As a result of structural change in the retail market, how and where people purchase food have changed over the years.⁹ For example, several empirical studies show that concentration in the food retail market may influence individuals' access to grocery stores and supermarkets.¹⁰ Further, research showed that the evolving food retail landscape might increase pre-existing disparities in access to healthy food, which may lead to poor dietary choices and a healthy lifestyle.¹¹

Several studies show that healthy food access is associated with the racial composition of a neighborhood,¹² with more supermarkets and grocery stores in predominantly White areas and fewer in predominantly Black areas.¹³ Previous research also links neighborhood food swamps^{4,14} to residential segregation^{12,15} and disparities in individuals' dietary behaviors and diet-related health outcomes.^{5,16-18} However, little is known about the relationship between market concentration, community racial and ethnic composition, and neighborhood food exposure. The purpose of this study is to assess how changes in food retail market concentration relate to racial and ethnic inequities in food swamp exposure over time.

Materials and methods

The spatial scale of interest is the universe of food establishments for 68,390 census tracts spanning all U.S. states from 2010 to 2019. The food retail market structure variables were generated from NETS, a longitudinal dataset compiled from Dun and Bradstreet archival establishment data. NETS contains information on all business establishments in the U.S. from 1989 to 2019. In the current study, we used NETS data from 2010 to 2019. Each establishment can be tracked over time and classified based on the North American Industry Classification System (NAICS), a classification of business establishments by type of economic activity. The race and ethnicity proportion and control variables (i.e., population, education attainment, poverty rate) were obtained from the American Community Survey from 2010 to 2019.

Measuring food deserts and food swamps

The latitude and longitude of each food retail-related establishment extracted from the NETS were geocoded using the python GeoPandas library. We then added census tract id to the dataset. Retailers were divided into seven categories with the following NAICS codes in our analysis: supermarkets/grocery stores (445110), fruit and vegetables (F&V) markets (445230), supercenters (452311), convenience stores (445120), dollar stores (452319), full-service restaurants (722511) and limited-service restaurants (722513). A detailed description of retail formats is provided in Appendix 1.

The food retail data from NETS do not differentiate between smaller and independently owned grocery stores. Studies showed that many of these smaller stores are considered corner stores.¹⁹ Therefore, we identified these stores as convenience stores if they had a NAICS code designation for a grocery store and four employees or fewer.¹⁹ Dollar stores are categorized with general merchandise stores in NAICS code 452319. To incorporate dollar stores exclusively, we follow previous research²⁰ and restrict our sample to establishments with “dollar” in the establishment name.

Each food outlet was categorized into unhealthy, intermediate, and healthy food retail outlets. The unhealthy retail food outlets category included convenience stores and limited-service restaurants. Full-service restaurants were in the intermediate retail food outlet category. Supermarket/grocery stores, fruit and vegetable markets, and supercenters were in the healthy retail food outlet category. This categorization was informed by the association of these different food outlets with dietary and health outcomes documented in the literature.^{21–28} For example, most research shows no apparent evidence of an association between full-service restaurant access and the risk of obesity. Hence, they are categorized as an intermediate category.^{26–28}

The Modified Retail Food Environment Index (mRFEI) was used to investigate the availability of healthy food retailers relative to all other types of retailers. A higher mRFEI implies easier access to healthy food retail outlets. We created the mRFEI score to measure census tract level food environment exposure based on the following equation:

$$\text{mRFEI} = 100 * \text{count of } \frac{\text{supermarkets+fruit and vegetable markets+supercenters}}{\text{all food retail outlets}} \quad (1)$$

Measuring the market concentration

The sales of each establishment in seven food retail categories classified by NAICS from 2010 to 2019 were also captured from the NETS database. The Herfindahl index, which represents market concentration measured based on individual establishments, was calculated as the squared sales shares of all establishments at each census tract level. The sales of seven establishment types were also calculated at the census tract level. The group Herfindahl index was calculated as the squared sales shares by groups.

Control variables

Several factors may influence food environment exposure. Similar to previous research, the analysis in the current study includes controls for the race (i.e., White, Black, and Asian) and ethnicity (i.e., Latinx) proportion;^{12,29} the overall population size (the log of the population at the census tract level);¹² education attainment (the percent of people having a Bachelor's degree or higher);⁸ and the poverty rate.³⁰ The above control variables were obtained from the American Community Survey from 2010 to 2019.

The metropolitan and non-metropolitan classification was based on the 2013 U.S. Department of Agriculture Rural-Urban Continuum Codes shown in Appendix 2.

Empirical Approach

We use the two-way fixed effects (TWFE) regression model to investigate the association between the food environment and market concentration.³¹ The baseline model is specified as follows:

$$y_{it} = \exp(\alpha_i + \alpha_t + \beta \text{HHI}_{it} + \gamma Z'_{it}) \varepsilon_{it}, \quad (1)$$

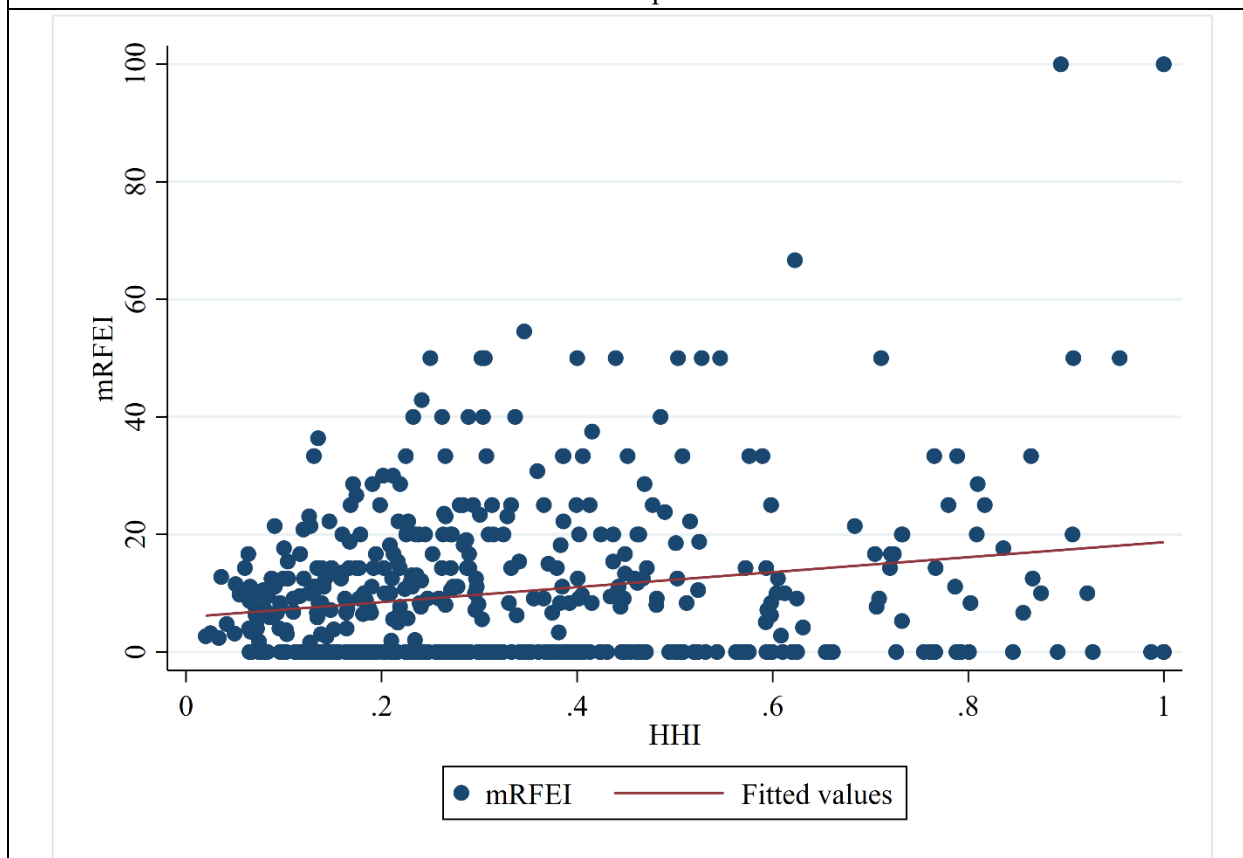
where we denote the census tract with i and the year with t . The outcome of interest (y_{it}) is the calculated mRFEI. Note that because the data is left-skewed, we use an exponential regression model to identify the parameters of interest. We control for unobserved time-invariant factors with census-tract fixed effects (α_i) and for common shocks over time with time fixed effects (α_t). We use NETS data for 2010 to 2019 and construct a balanced panel at the census tract level. The variable of interest, HHI_{it} , represents the Herfindahl index within a given census tract and year. We denote the set of control variables with Z'_{it} and the multiplicate error term with ε_{it} . The interaction between market concentration and metro/nonmetro classification was added to the model to examine whether the results differ among metro/nonmetro areas. After dropping observations that were either singletons or separated by a fixed effect, 50,743 census tracts were included in the regression analysis. Several robustness checks were conducted to ensure the validity of the research design. A descriptive statistic is provided in Appendix 3.

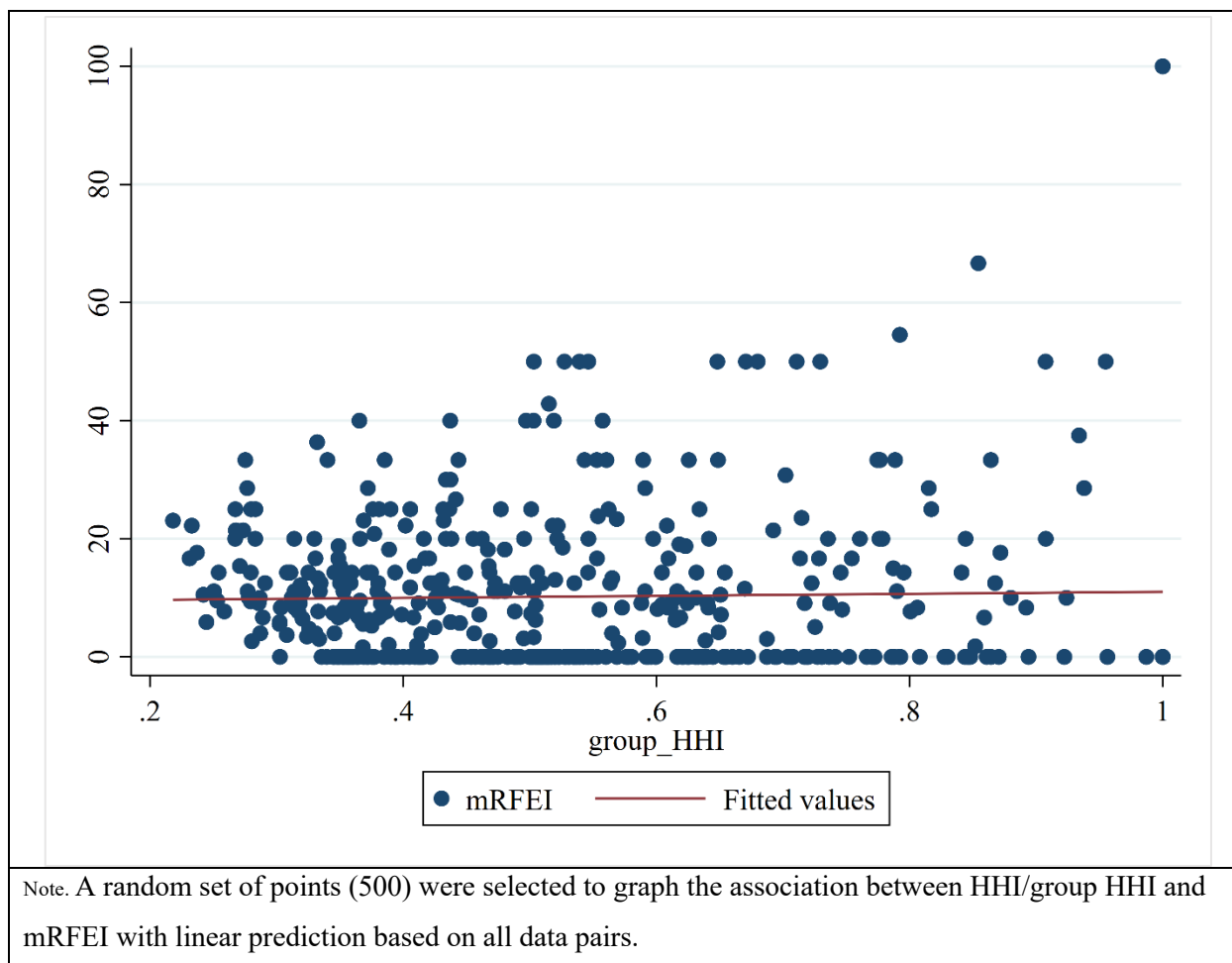
We follow the standard practice to deal with abundant zeros and rely on the Poisson Pseudo Maximum Likelihood (PML) estimator to identify the parameters of interest in Equation 1.^{32,33} Silva and Tenreyro (2006) showed that Poisson PML is robust to different patterns of heteroskedasticity and measurement error.³⁴ The estimator also allows us to address the large share of zero observations in the dataset. We account for the high-dimensional fixed effects by using a modified version of the iteratively re-weighted least-squares (IRLS) algorithm that is robust to statistical separation and convergence issues.^{35,36} Lastly, we suspect that the standard errors are correlated within census tracts, prompting us to cluster them at this level.³⁷

Descriptive evidence

Figure 1 plots the association between mRFEI and HHI/group HHI. We dropped census tracts with 0 food retail establishments from this analysis. A random set of points (500) was selected to graph the association between HHI/group HHI and mRFEI with linear prediction based on all data pairs. Though the linear relations between HHI/group HHI and mRFEI were not clear, the graphs showed the trend of positive relationships between HHI/group HHI and mRFEI.

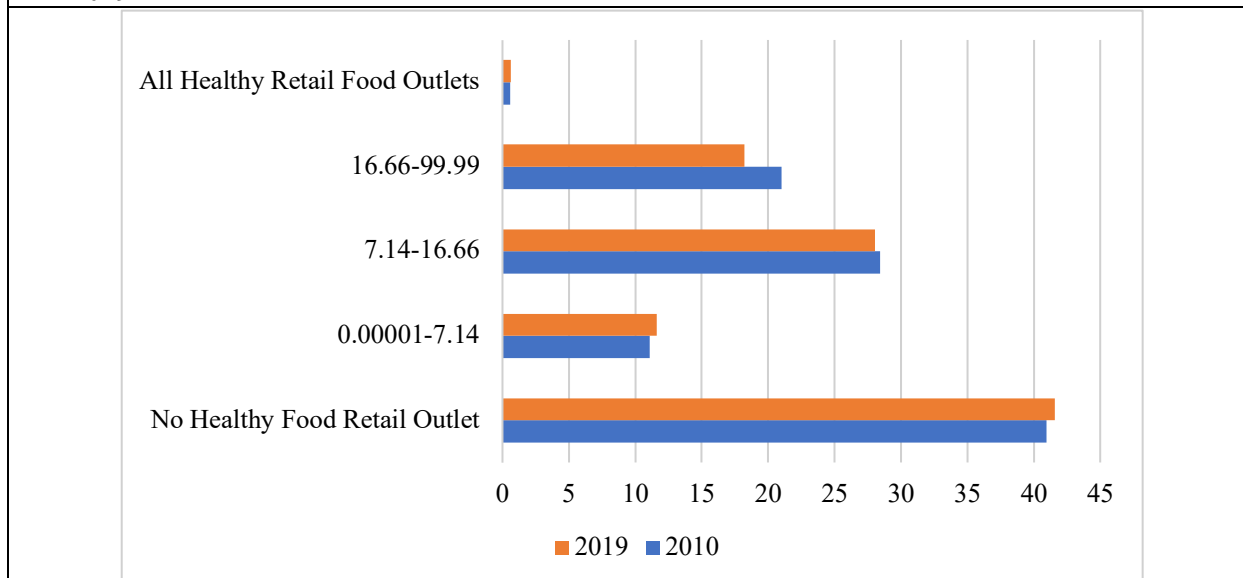
Figure 1. Scatter plot for the association between Herfindahl index/ group Herfindahl index and the Modified Retail Food Environment Index with linear prediction.





The histogram plot for mRFEI at census tract level in 2010 and 2019 showed that food swamps expanded over time in areas where food retail outlets with limited healthy food choices grew substantially, while independent and grocery stores fell behind. Figure 3 shows the trend of food swamps and market concentration changes from 2010 to 2019. While food swamps expanded, market concentration didn't change much during these years. Figures 4 represent the trend of food swamps and White/Latinx proportional changes from 2010 to 2019. Again, while proportion at the census tract level decreased over these years, the Latinx proportion gradually increased. See Appendix 4 for more line graphs for other racial proportions.

Figure 2. Frequency plot for Modified Retail Food Environment Index at the census tract level in 2010 and 2019.



Note. When mRFEI = 0, No healthy food retail outlet; when mRFEI = 7.14, 50%; when mRFEI = 16.66 75%; when mRFEI = 100, all healthy food retail outlets.

Figure 3. Line graphs for Modified Retail Food Environment Index and market concentration at the census tract level from 2010 to 2019.

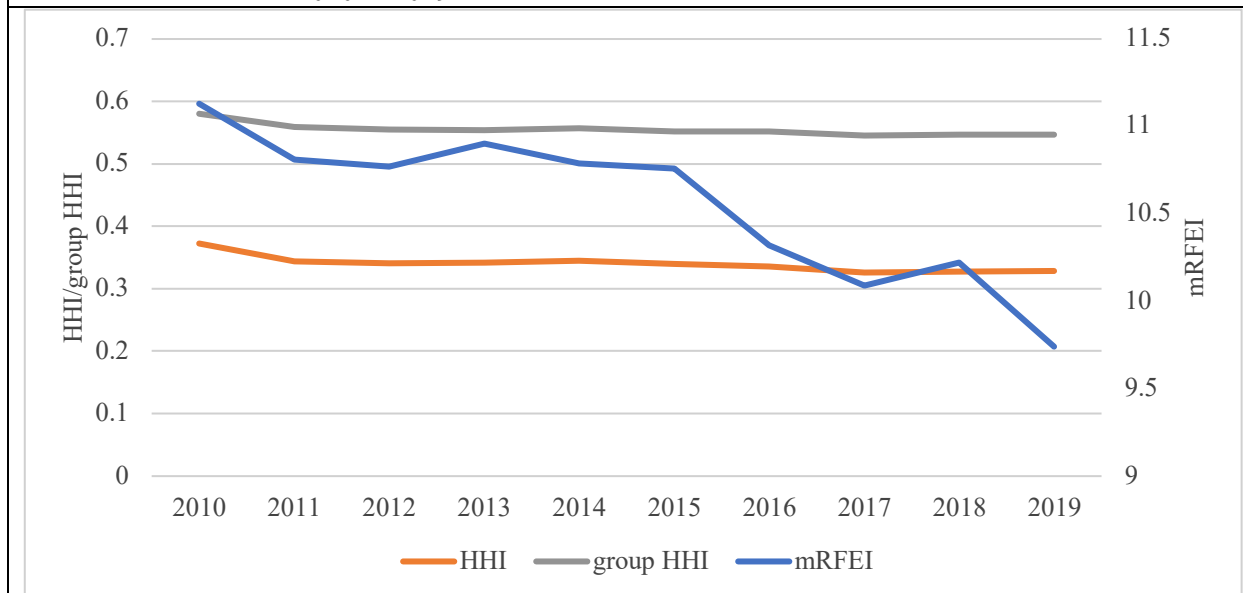
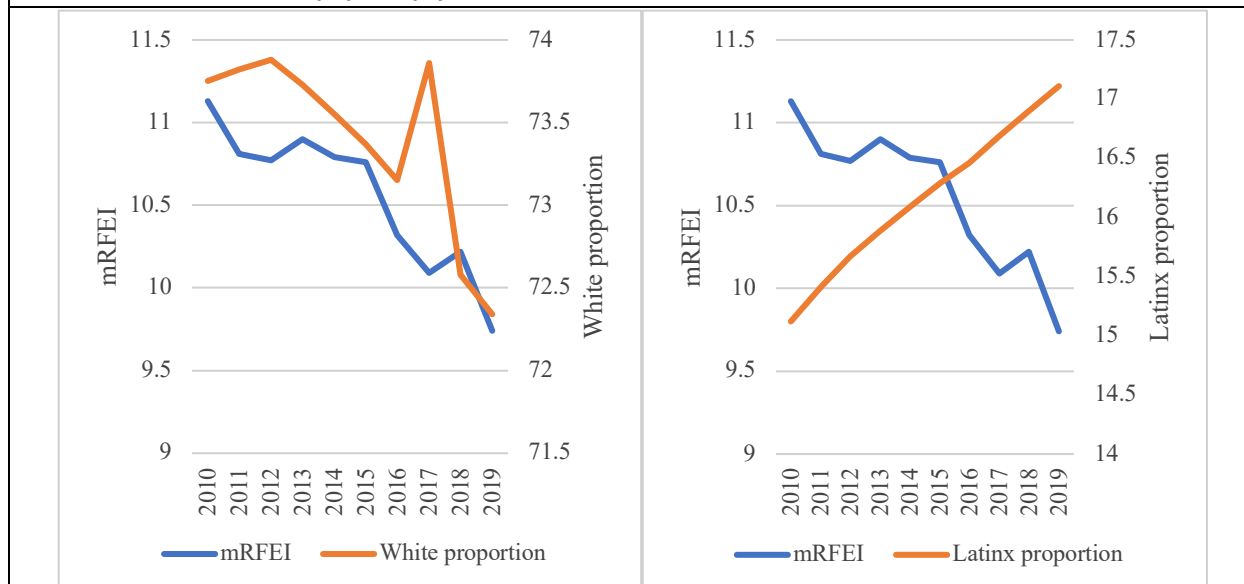


Figure 4. Line graphs for Modified Retail Food Environment Index and White/Latinx proportion at census tract level from 2010 to 2019.



Geospatial analysis results

Figures 5 and 6 show a geospatial analysis that identifies statistically significant hot and cold spots of food swamp exposure in 2010 and 2019. Both hot and cold spots were with three levels of confidence intervals. Cold spots represented statistically significant clusters of low mRFEI scores (i.e., an indication of food deserts and food swamps). At the same time, hot spots represented statistically significant clusters of high mRFEI scores (i.e., indicating better healthy food availability). Overall, in both years, healthy food availability tended to be better in the Central and Western parts of the Northern U.S. Compared to 2010, food deserts and food swamps expanded in the Eastern part of the U.S.

Figure 5. Hotspot analysis of mRFEI scores in 2010 (tracts in the lower 48 U.S. states).

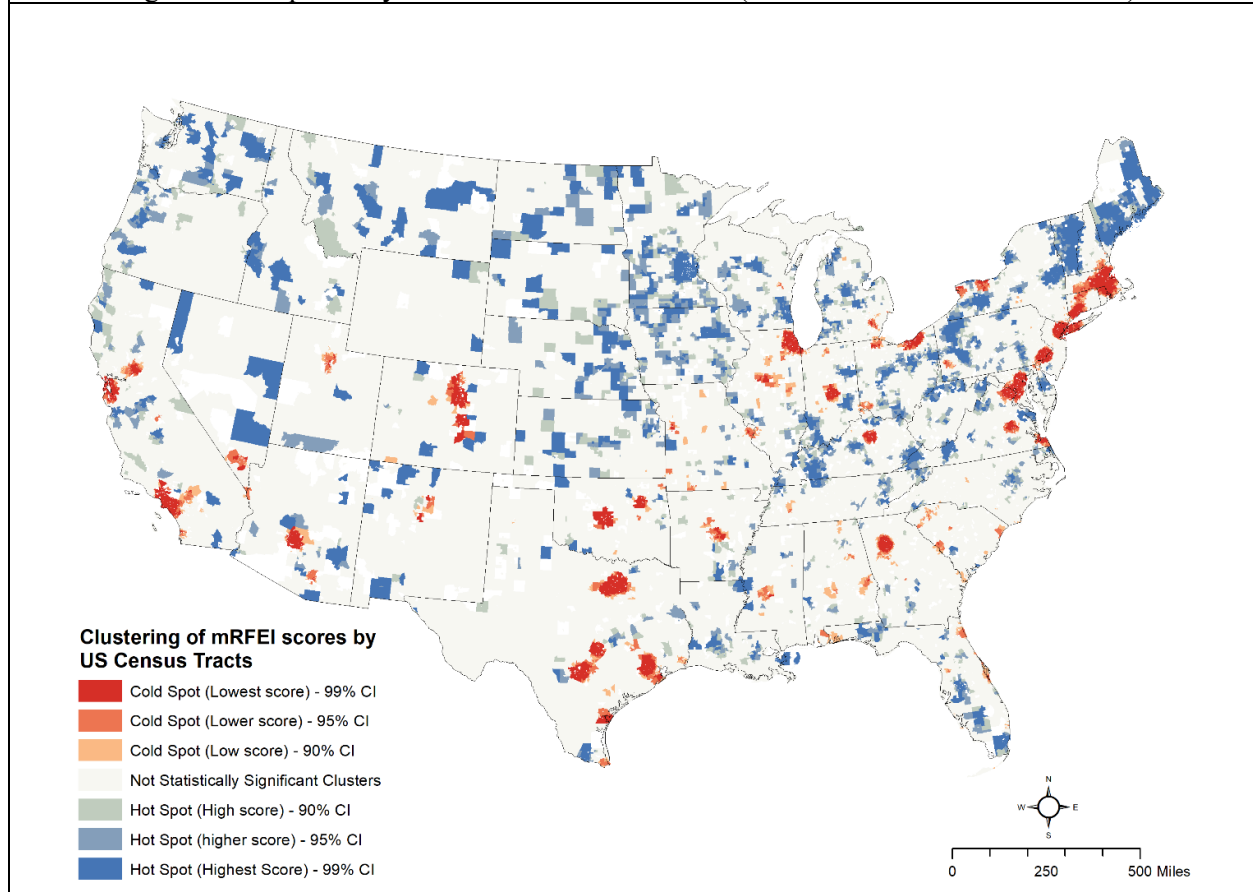
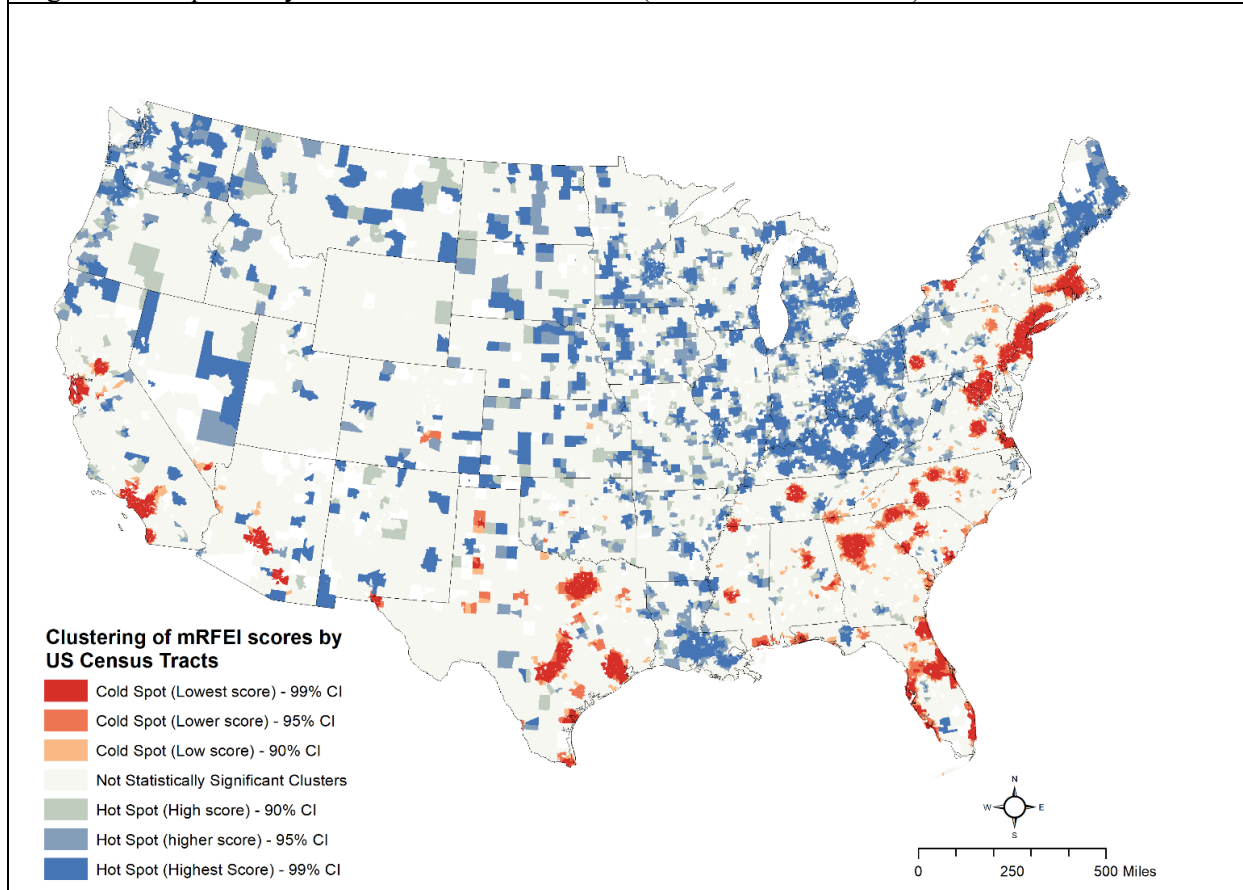


Figure 6. Hotspot analysis of mRFEI scores in 2019 (tracts in 48 U.S. states).



Regression results

Table 1 summarizes the baseline results for the associations between market concentration and food environment exposure. The regression results showed that the group Herfindahl index was negatively associated with mRFEI ($\beta = -.271$, $p < .001$, $95\%CI = [-.363, -.216]$), suggesting the higher market concentration level by food retail groups was associated with higher food swamps exposure. The Herfindahl index was positively associated with mRFEI ($\beta = .508$, $p < .001$, $95\%CI = [.459, .557]$), suggesting the higher market concentration level based on all establishments was associated with lower food swamps exposure. The proportion of Latinx people at the census tract level was negatively associated with mRFEI ($\beta = -.001$, $p < .05$, $95\%CI = [-.002, -.0001]$), suggesting census tract areas with more Latinx people were associated with higher food swamps exposure.

Table 1. The associations between market concentration and food environment exposure.

	Group HHI			HHI	
	Coef	95% CI		Coef	95% CI
Group HHI	-.271***	[-.326, -.216]	HHI	.508***	[.459, .557]
White proportion	.001	[-.0004, .001]	White proportion	.001	[-.0004, .001]
Black proportion	-.001	[-.003, .0003]	Black proportion	-.001	[-.002, .0003]
Asian proportion	-.001	[-.002, .001]	Asian proportion	-.0004	[-.002, .001]
Latinx proportion	-.001*	[-.002, -.0001]	Latinx proportion	-.001*	[-.002, -.0001]
Poverty percent	.0001*	[.0001, .0002]	Poverty percent	.0001*	[.0001, .0002]
Bachelor or higher percent	-.0001	[-.0002, .00004]	Bachelor or higher percent	-.0001	[-.0002, .00003]
Population	-.210***	[-.256, -.164]	Population	-.162***	[-.205, -.119]

Note. Number of observations = 507,320; residual df = 50,742. R square (Group HHI) = .510; R square (HHI) = .511

Table 2 adds the interaction between market concentration and metro/non-metro classification to the baseline model. Again, the results indicate that the signs of all estimates are the same for metro and nonmetro census tracts for Group HHI and HHI. However, we find that the treatment effects are more pronounced for metro than non-metro areas. This finding points toward differences in the association between market concentration and the food environment.

Table 2. The associations between market concentration and food environment exposure separately for metro and non-metro areas.

	Group HHI		HHI	
	Coef	95% CI	Coef	95% CI
Group HHI			HHI	
Metro	-.301***	[-.363, -.238]	Metro	.520*** [.465, .575]
Non-metro	-.171***	[-.288, -.053]	Non-metro	.461*** [.353, .568]
White proportion	.001	[-.0004, .005]	White proportion	.001 [-.0004, .001]
Black proportion	-.001	[-.003, .0003]	Black proportion	-.001 [-.002, .0003]
Asian proportion	-.001	[-.003, .001]	Asian proportion	-.0004 [-.002, .001]
Latinx proportion	-.001*	[-.002, -.0001]	Latinx proportion	-.001* [-.002, -.0001]
Poverty percent	.0001*	[.0001, .0003]	Poverty percent	.0001* [.0001, .0002]
Bachelor or higher percent	-.0002	[-.0002, .00004]	Bachelor or higher percent	-.0001 [-.0002, .00003]
Population	-.211***	[-.257, -.164]	Population	-.162*** [-.205, -.119]

Note. Number of observations = 507,320; residual df = 50,742. R square (Group HHI) = .510; R square (HHI) = .511

A potential concern regarding our identification strategy relates to unobserved factors correlated with the relationship of primary interest. To account for this issue, we added state-year fixed effects to the baseline model in Table 3. We find that the associations between HHI/group HHI and mRFEI remained the same as the baseline models. However, the proportion of Latinx people at the census tract level was no longer significantly associated with mRFEI, while the proportion of White people at the census tract level was positively associated with mRFEI ($\beta = .001$, $p < .01$, $95\%CI = [.0004, .002]$), suggesting census tract areas with more White people were associated with lower food swamps exposure.

Table 3. The associations between market concentration and food environment exposure after adding state and time fixed effects.

	Group HHI			HHI	
	Coef	95% CI		Coef	95% CI
Group HHI	-.288***	[-.342, -.233]	HHI	.504***	[.455, .552]
White proportion	.001**	[.0004, .002]	White proportion	.001**	[.0004, .002]
Black proportion	-.0002	[-.002, .001]	Black proportion	-.0001	[-.002, .001]
Asian proportion	.001	[-.001, .002]	Asian proportion	.001	[-.001, .001]
Latinx proportion	.0003	[-.001, .001]	Latinx proportion	.0003	[-.001, .001]
Poverty percent	.0001	[-.0001, .0002]	Poverty percent	.0001	[-.0001, .0002]
Bachelor or higher percent	-.0001	[-.0002, .0001]	Bachelor or higher percent	-.0001	[-.0002, .00005]
Population	-.124***	[-.166, -.083]	Population	-.085***	[-.124, -.045]

Note. Number of observations = 507,320; residual df = 50,742. R square (Group HHI) = .519; R square (HHI) = .520

Discussion and policy implications

This research might guide food systems planning and identify racial/ethnic minority neighborhoods burdened by inequitably built food desert and food swamp environments. Competition policies, such as the Healthy Food Financing Initiative, could play a crucial role in ensuring equitable access to healthy food, particularly in communities of color. Food swamps expanded from 2010 to 2019 in areas where food retail outlets with limited healthy food choices grew substantially, while independent grocery stores fell behind. As we show, the changes in U.S. food market concentration are associated with increased food swamp exposure, implying a need for further research exploring the mechanism of how market concentration influences access to healthy food.

Our results also point to disparities in food swamp exposure by ethnicity. We found that census tracts with more Latinx people have excessive exposure to food swamp environments. At the same time, the census tracts with more White people have easier access to healthy food. This finding is in line with previous studies that found that racial/ethnic minorities are more likely to live near unhealthy food retail outlets than White people.³⁸⁻⁴⁰ For example, Anderson et al. (2014) found that Black and Latinx people tended to have greater access to fast-food establishments than their white counterparts.³⁹ Further, the study by Cooksey-Stowers et al. (2020) also pointed to racial and ethnic disparities in the likelihood of residents living in a food swamp or desert.⁵ These findings suggest that U.S. food policies and economic incentives must address widening disparities in neighborhood food environments and foster an inclusive, healthy, profitable, equitable, and sustainable food system. Future research may explore how citizenship

and immigrant status affects widening disparities between Latinx populations and other people of color.

The current study does have a few limitations. The secondary data source we used to measure the local food environment may not accurately explore these associations for some study areas because we cannot observe the actual product range offered by these stores. However, food environment field audits cannot measure food establishments either in a large region or during a longer historical period because such a study is cost prohibitive.⁴¹ Previous studies suggests that InfoUSA and government food registries have a higher level of agreement than reported by other secondary data sources.⁴² Future work might improve consistency in data gathering, geocoding, editing, and analyzing secondary data sources. Previous evidence also showed that data providers might apply classification schemes inconsistently.⁴³ In our study, we potentially undercounted the number of dollar stores as there is no specific NAICS code for this retail outlet type. Further research may involve data-driven methods to classify different formats of retail food outlets.

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Appendix

Appendix 1. Definitions of Retail Format.		
Format	NAICS code	Definition
Supermarkets/grocery stores	445110	The industry comprises establishments generally known as supermarkets and grocery stores primarily engaged in retailing a general line of food, such as canned and frozen foods; fresh fruits and vegetables; and fresh and prepared meats, fish, and poultry.
Fruit and vegetables markets	445230	This industry comprises establishments primarily engaged in retailing fresh fruits and vegetables.
Supercenters and warehouse clubs	452311	This industry comprises establishments known as warehouse clubs, superstores or supercenters primarily engaged in retailing a general line of groceries in combination with general lines of new merchandise, such as apparel, furniture, and appliances.
Convenience stores	445120 and those with employees four or less in NAICS code 445110	This industry comprises establishments known as convenience stores or food marts primarily engaged in retailing a limited line of goods that generally includes milk, bread, soda, and snacks
Dollar stores	452319	Stores with “dollar” in the name with NACIS code 452319
Full-service restaurants	722511	This industry comprises establishments primarily engaged in providing food services to patrons who order and are served while seated (i.e., waiter/waitress service) and pay after eating
Limited-service restaurants	722513	This industry comprises establishments primarily engaged in providing food services where patrons generally order or select items and pay before eating. Food and drink

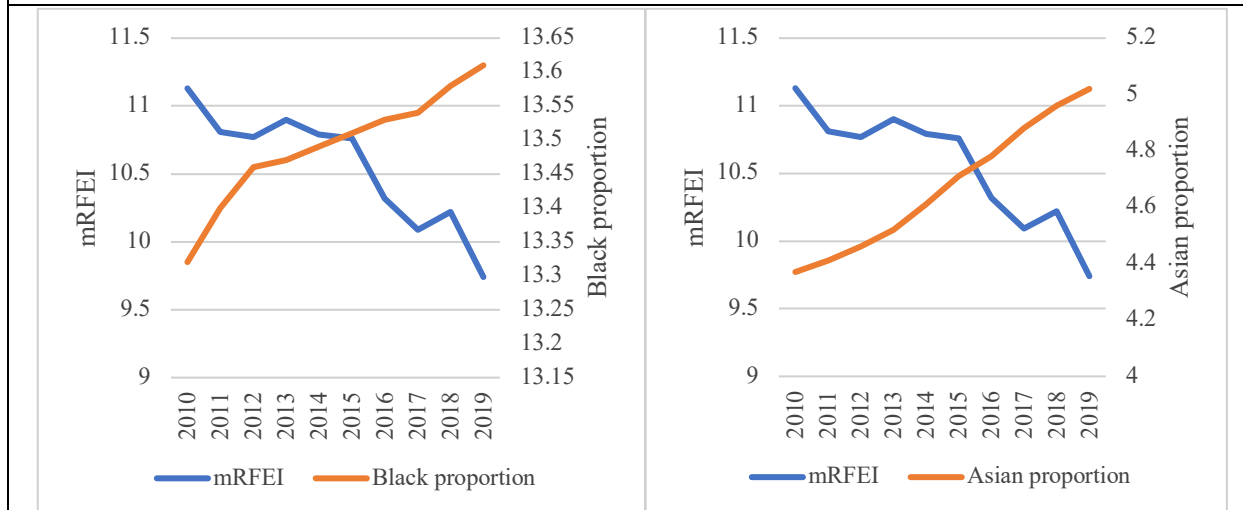
		may be consumed on premises, taken out, or delivered to the customer's location.
Note. Sourced from the North American Industry Classification System code definitions.		

Appendix 2. Categories for metro and non-metro counties.	
Code	Description
Metro counties	
1	Counties in metro areas of 1 million population or more
2	Counties in metro areas of 250,000 to 1 million population
3	Counties in metro areas of fewer than 25,000 population
Non-metro counties	
4	Urban population of 20,000 or more, adjacent to a metro area
5	Urban population of 20,000 or more, not adjacent to a metro area
6	Urban population of 2,500 to 19,999, adjacent to a metro area
7	Urban population of 2,500 to 19,999, adjacent to a metro area
8	Completely rural or less than 2,500 urban population, adjacent to a metro area
9	Completely rural or less than 2,500 urban population, not adjacent to a metro area

Appendix 3. Summary statistics of the variables in the sample.

Variable	Mean	SD	Min	Max
Population	4427.405	2097.016	0	72041
White proportion	73.305	25.020	0	100
Black proportion	13.489	21.702	0	100
Asian proportion	4.672	8.883	0	100
Latinx proportion	16.162	21.837	0	100
Poverty Percent	16.429	27.897	0	100
Bachelor or higher percent	12.844	25.899	0	100
HHI	.340	.231	.008	1
Group HHI	.555	.207	.174	1
mRFEI	10.554	14.233	0	100

Appendix 4. Line graphs for Modified Retail Food Environment Index and Racial proportion at census tract level from 2010 to 2019.





Panel 5: Online Shopping

Smile! You're On Camera: Data Collection In Food Retailing Markets

Matene Alikhani & Bruno Renzetti

Introduction

We currently live under surveillance capitalism. The small device that we carry in our pockets tracks our geolocation, listens to our conversations, and stores precious bits of personal information. Although tracking is typically associated with the online environment, offline retailers have also identified the importance of personal data for their businesses.

The food retail market emerges as the next frontier for data collection. As grocery stores try to recoup consumers that moved to online shopping, they are employing new technologies to simulate the online experience in the physical world. Loyalty programs have moved to mobile apps, allowing retailers to better track their customers. Shopper analytics and data mining are already pushing for personalized offers and tailored prices for customers.⁴⁹⁶

Amazon, the e-commerce behemoth, has taken the collection of shopper data to a new level. The company is pursuing a somewhat paradoxical goal: establishing a brick-and-mortar presence in the retail grocery space. Following the acquisition of Whole Foods in 2017,⁴⁹⁷ the company launched Amazon Go,⁴⁹⁸ a *real-life* grocery store, bringing together the power of the e-commerce giant with cutting-edge technology to provide a distinct grocery experience. Amazon's innovation in America's food retail market is its *Just Walk Out* ("JWO") technology.⁴⁹⁹ The company employs Internet of Things ("IoT") technology to allow cameras to capture every move of the customer in the Amazon Go store and directly charge their Amazon account afterwards. The customer can literally just walk out of the store without checking out at a cashier. Most Amazon

⁴⁹⁶ Sandy Skrovan, *Kroger's analytics and personalized pricing keep it a step ahead of its competitors*, GROCERY DIVE (2017), <https://perma.cc/LNP8-TX9M>.

⁴⁹⁷ SUBCOMMITTEE ON ANTITRUST, COMMERCIAL AND ADMINISTRATIVE LAW OF THE COMMITTEE ON THE JUDICIARY, *Investigation of Competition in Digital Markets - Majority Staff Report and Recommendations* 264 (2020). "More recently, Amazon acquired Whole Foods, a strategic move to acquire both a competitor, and a new source of customer data. Amazon purchased Whole Foods at around \$13.7 billion, more than 10 times the cost of its second-most expensive acquisition. In addition to bolstering its position in the grocery market, Amazon's purchase of Whole Foods expanded its touch points with Prime members and gave it access to a unique set of customer information. Specifically, the deal enabled Amazon to monitor and compile data on how the same person shops both online and in person, data that is particularly useful for targeted advertising and promotional campaigns."

⁴⁹⁸ Initial locations were small grocery and quick stop locations in densely populated areas; the first one opened in Seattle in 2016. See Nick Wingfield, *Amazon Moves to Cut Checkout Line, Promoting a Grab-and-Go Experience*, THE NEW YORK TIMES, December 5, 2016, <https://perma.cc/5GPV-Y92N>.

⁴⁹⁹ "We created the world's most advanced shopping technology, so you never have to wait in line. Amazon Go was the first store to open with Just Walk Out Technology. Our checkout-free shopping experience is made possible by the same types of technologies used in self-driving cars: computer vision, sensor fusion, and deep learning. Just Walk Out Technology automatically detects when products are taken from or returned to the shelves and keeps track of them in a virtual cart. When you're done shopping, you can just leave the store. Later, we'll send you a receipt and charge your Amazon account." Amazon, *Amazon Go - Frequently Asked Questions* (2021), <https://www.amazon.com/b?ie=UTF8&node=16008589011>.

Go stores only allow customers with Amazon accounts to shop. There are a few locations in which customers can enter the store by dipping their credit card at the turnstile.⁵⁰⁰ If in the online environment Amazon tracks consumer preferences by how they add and drop products in their shopping carts, in the offline world Amazon surveilles customer preferences by how they contemplate the aisle and reach for products on the shelves.

Amazon's new expansion strategy is to offer infrastructure and software as a service to retail businesses through JWO technology. This business plan is in line with Amazon's focus on its cloud business, which while representing a small share of revenue is the company's main profit center.⁵⁰¹ The data collected by Go stores and service agreements with retailers has the potential to create an exhaustive profile of the shopper. Amazon can leverage its business position in other markets by better pinpointing the needs and preferences of consumers. An additional concern is the possibility of price discrimination based on the consumer's previous purchase history.

In summary, Amazon Go replicates online surveillance in the offline world. This paper tackles issues related to the potential harms caused by Amazon's conduct in the food retail market. **Section I** addresses how the development of new technology has made it possible for food retailers to surveil customers by collecting, storing, and exploring their personal data. **Section II** tackles the potential anticompetitive concerns related to personal data collection and issues related to privacy and data protection. The **conclusion** discusses policy solutions, drawing on existing antitrust and proposed data privacy legislation, and how recent developments in food retailing markets present a challenge to current policy.

Amazon's JWO As The New Frontier For Surveillance Capitalism

Surveillance capitalism is the commodification of experience for economic benefit. Shoshana Zuboff's *The Age of Surveillance Capitalism*, which first elaborated on the concept, demonstrates how the economic system uses modern technology to acquire and utilize behavioral data from end-users.⁵⁰² On a surface level, this information helps to build better products and develop new ideas. However, Zuboff describes the behavioral surplus reaped by companies under surveillance capitalism as the amount beyond what is required for product development and improvement. "Just as industrial capitalism was driven to the continuous intensification of the means of production, so surveillance capitalists and their market players are now locked into the continuous intensification of the means of behavioral modification."⁵⁰³ Surveillance capitalism

⁵⁰⁰ Just Walk Out: Our Customers, SUPERMARKET NEWS, <https://justwalkout.com> (last visited Jan 19, 2022); Starbucks Pickup and Amazon Go Collaborate to Launch New Store Concept in New York City, STARBUCKS STORIES & NEWS (2021), <https://stories.starbucks.com/press/2021/starbucks-pickup-and-amazon-go-collaborate-to-launch-new-store-concept-in-new-york-city> (last visited Jan 19, 2022); Dilip Kumar, Sainsbury's becomes first international third-party customer to use Amazon's Just Walk Out technology, AMAZON (2021), <https://www.aboutamazon.com/news/retail/sainsburys-becomes-first-international-third-party-customer-to-use-amazons-just-walk-out-technology> (last visited Jan 19, 2022).

⁵⁰¹ Alex Webb, *Amazon's Main Street Grocery Battle Isn't What You Think*, BLOOMBERG BUSINESSWEEK, 2021.

⁵⁰² SHOSHANA ZUBOFF, *THE AGE OF SURVEILLANCE CAPITALISM: THE FIGHT FOR A HUMAN FUTURE AT THE NEW FRONTIER OF POWER* 8 (2019); Shoshana Zuboff, *Surveillance Capitalism and the Challenge of Collective Action*, 28 NEW LABOR FORUM, 11.

⁵⁰³ ZUBOFF, *supra* note 8 at 9.

employs technology to derive power from an understanding of the end-user and seeks to use data generated by “free” services to coerce future behavioral outcomes.

Zuboff focuses on Google as the inventor and leader of surveillance capitalism, which then spread across peers and industries.⁵⁰⁴ In Zuboff’s interpretation, the lucrative success seen by technology companies is the result of their ability to predict future behavior. Early on, the companies chose to reinvest large portions of their behavioral surplus into improving the user experience.⁵⁰⁵ Over time, however, the lucrative nature of this information became known, primarily through application to digital advertising. This profit opportunity led to expansion in the methods of surveillance capitalism as well as the universe of players. Amazon – a new entrant to surveillance capitalism at the time of Zuboff’s writing – has sought to use its diverse range of product lines and behemoth digital presence to “reproduce in the real world the same logic that Google perfected in the virtual world.”⁵⁰⁶ JWO technology embodies the potential expansion of surveillance capitalism in three steps: first to Amazon Go stores, then through licensing agreements to all food retail, and ultimately through the creation of a surveillance leader in brick-and-mortar commerce. JWO enables Amazon to apply methods of surveillance capitalism more effectively to the offline environment.

The development of the assets that allow surveillance capitalism into the home is a core theme of Zuboff’s work. Amazon Alexa and Google Nest are two products that seek to become akin to personal assistants. In their implementation, Amazon and Google have sought to provide these products as a service, allowing third parties to create technology that operates on the devices.⁵⁰⁷ JWO technology is the entrance of surveillance capitalist assets and ecosystems to the retail space, with food retail as the initial target. Shoppers will soon find that every action in the store will be rigorously catalogued and examined as the newest method by which surveillance capitalists are able to extract behavioral surplus. The result of this technology will be even greater profits for existing firms and the loss of privacy and choice for consumers.

JWO technology presents a new frontier in brick-and-mortar efficiency. Stores have struggled to implement successful technologies that bypass the checkout line for many years. Amazon’s elimination of the bottleneck that the checkout queue represents is appealing. Upon release of Amazon Go, a representative for the company stated, “[t]his has pretty broad applicability across store sizes, across industries, because it fundamentally tackles a problem of how you get convenience in physical locations.”⁵⁰⁸ Amazon further promised that, beyond customer identification data, the information created within stores using JWO as a service would belong to those retailers.⁵⁰⁹ Both statements are beneficial for consumers. JWO technology has rapidly decreased in price⁵¹⁰ and is now a viable cost-saving and efficiency-inducing technology. Similarly, the prospect of an extant surveillance capitalist separating itself from a trove of behavioral retail data appears positive.

⁵⁰⁴ *Id.* at 9–10.; Zuboff, *supra* note 8 at 12.

⁵⁰⁵ ZUBOFF, *supra* note 8 at 8.

⁵⁰⁶ Zuboff, *supra* note 8 at 16.

⁵⁰⁷ *Id.* at 15.

⁵⁰⁸ Jeffrey Dastin, *Amazon launches business selling automated checkout to retailers*, REUTERS, 2020.

⁵⁰⁹ *Id.*

⁵¹⁰ George Iddenden, *Amazon slashes cost of Just Walk Out tech by 96% paving the way for wider roll out*, CHARGED - RETAIL TECH NEWS, 2021.

However, technology-enabled efficiency does not require surveillance capitalism to exist. Surveillance capitalism is the expression of a business model, not an intrinsic tying of technology and economics.⁵¹¹ Similarly, an expansion of the universe of surveillance capitalism to traditional retailers does not guarantee that the behavioral surplus will be reduced, or the personal data gathered will be any less invasive. Rather, this expansion will lead more companies to use behavioral surplus as a way of driving profits. JWO technology thus represents a rapidly growing product with an efficiency inducing use case while also creating the potential for consumer harm on a variety of fronts.

Privacy and Competitive Concerns Posed By JWO

In Amazon Go stores, there are two different products for sale: groceries and consumers' personal data. While customers survey the produce area for the freshest tomatoes, cameras record their every move. Amazon's customer surveillance is unprecedented in the food retail industry. The challenges to competition policy and privacy derive from the unparalleled amount of data collected and processed by the company.

It is not a new strategy for retailers to collect data on their consumers and attempt to promote a personalized shopping experience. Joseph Turow provides a thorough account of retailers' strategies across the years to better tailor their products to customers and attract patrons. One of the most common strategies was the use of discount coupons. From department stores to supermarkets, coupons were applied widely in the retail industry. Initially, coupons were used mainly to attract new customers and promote brand loyalty.⁵¹² Even though the retailers were satisfied in building recurrence, they knew the coupons could provide them with more detailed information about the shoppers' habits, delivering valuable evidence to reach the goal of personalizing the shopping experience. Supermarkets knew that such personal data could not be wasted, but the analytical challenges at the time (the mid-1990s) were too high.⁵¹³

This picture started to change with the advent and popularization of the Internet at the turn of the century. The introduction of e-commerce was a fundamental shift: data collection became far easier for retailers. The discovery of the potential of web cookies and the accompanying ability to track users heralded a decisive change in how retailers collected individual shopper data over the web.⁵¹⁴ In the grocery industry specifically, electronic coupon delivery was an important part of the strategies used by supermarkets to enter the digital age and promote consumer loyalty. Coupons would not only attract customers back to the stores, thus building loyalty, but could also provide valuable inputs on customers' purchasing habits. But it was the introduction of the mobile

⁵¹¹ ZUBOFF, *supra* note 8 at 15.

⁵¹² JOSEPH TUROW, *THE AISLES HAVE EYES: HOW RETAILERS TRACK YOUR SHOPPING, STRIP YOUR PRIVACY, AND DEFINE YOUR POWER* 55 (2017).

⁵¹³ *Id.* at 87. ("Despite the immense analytical challenges, many supermarket executives believed that they couldn't afford to ignore the personalizing possibilities of database marketing in view of the intense competition among stores.")

⁵¹⁴ *Id.* at 92. ("The cookie was the most crucial of a range of emerging developments that deepened the notion that the Web was a place for promoting products as well as collecting data on individuals and then using that information to entice them to make a purchase.")

phone that initiated a new chapter in how the retail industry started to track consumers and profit from data generation.

The popularization of the mobile phone provided retailers with a new platform to track customers and personalize offers. The mobile phone reduced the transaction costs that retailers experienced with coupons. “For the first time the shopper, rather than the merchant, brought the connecting technology into the store – and that technology could be used to reliably identify the individual.”⁵¹⁵ The mobile phone enabled grocery stores to send real-time offers via text messages to consumers while they were browsing the aisles. Later, once the smartphone reached a meaningful degree of penetration among customers, supermarkets developed mobile applications for smartphones. In an evolution of the coupons and loyalty programs, customers would download and sign up for the apps, providing the retailers with valuable personal information as well as purchase history. Customer tracking became more widespread and influential with the advent of smartphones.

Constant customer tracking enables personalized pricing and can cause consumer harm. Economic theory tells us that the best strategy for a dominant player to capture additional revenue is not to act as a monopolist but instead to price discriminate at the customer level, charging a personalized price based on individual willingness to pay. The strategy, however, has an important obstacle: the monopolist does not have enough information to correctly assess the price elasticity of each consumer.

JWO Technology has the ability to close the gap on the information asymmetry that prevents personalized pricing.⁵¹⁶ There is no reason to believe that Amazon will not use its power in the e-commerce market to expand the company’s area of influence. Amazon’s entrance into the brick-and-mortar retail market through the acquisition of Whole Foods is a perfect example of the company’s ability and incentive to leverage its market power in the e-commerce sector to break into neighboring markets.⁵¹⁷

K. Sabeel Rahman argues that Amazon should be better understood as an information platform, exercising three different forms of power: gatekeeping, transmission, and scoring.⁵¹⁸ Amazon exerts all three of these powers: it serves as an essential outlet for online sellers; it

⁵¹⁵ *Id.* at 101.

⁵¹⁶ HAL R. VARIAN, *INTERMEDIATE MICROECONOMICS* 480 (9th ed. 2014). (“Under first-degree price discrimination, or perfect price discrimination, each unit of the good is sold to the individual who values it most highly, at the maximum price that this individual is willing to pay for it.”). Qihong Liu & Jie Shuai, *Price Discrimination with Varying Qualities of Information*, 16 *BE J. ECON. ANAL. POLICY*. (“Firms’ profits increase with information quality. Increasing profit combined with lower social surplus suggests that consumer surplus monotonically decreases with information quality.”)

⁵¹⁷ K. Sabeel Rahman, *Regulating Informational Infrastructure: Internet Platform as the New Public Utilities*, *GEO. L. TECH. REV.*, 245 (2018). (“As a growing number of scholars and advocates have suggested, part of the danger of information platforms lies not just in the power they exercise now, but in the ways in which their current influence on economic and social activity can spill over, enabling dominance in adjacent markets and areas of activity. Thus Amazon’s dominance over retail makes it easier to colonize adjacent markets – as with its entry into the grocery business through its acquisition of Whole Foods.”)

⁵¹⁸ K. Sabeel Rahman, *Regulating Informational Infrastructure: Internet Platform as the New Public Utilities*, *GEO. L. TECH. REV.*, 242 (2018).

processes transactions on the platforms (possibly manipulating them for Amazon’s own gain⁵¹⁹); and it develops scoring systems based on algorithms capable of amplifying social surveillance and inequalities.⁵²⁰

Amazon’s JWO technology is the tool developed by the company to employ scoring power in the food retail market. The unprecedented amount of data collected by Amazon from Go customers provides the company with the information necessary to build detailed profiles of their patrons with a level of granularity never seen before. What differentiates Amazon Go’s personal data collection from strategies employed by other food retailers are the Facial Recognition Systems (“FRS”) installed in the stores.

FRS take consumer surveillance to a new level.⁵²¹ Turow explains that FRS have an inherent advantage over mobile phone tracking because they are passive.⁵²² Moreover, FRS extract more data points from each frame captured by the cameras than any other technology, from patterns of light to emotional categories.⁵²³ The technology can capture consumers’ emotions and reactions when presented with a specific product in the aisle.⁵²⁴ Amazon does not only wish to know what a consumer buys but more importantly, how a consumer reacts to a product and what they decide not to buy. FRS can also recognize recurring customers, overcoming anonymity as well as providing retailers with an innumerable array of personal information. Thus, a retailer could attempt to reduce information asymmetry and offer personalized pricing to each consumer that enters the store.

The concern with FRS is widespread in the retailer market, but the fact that Amazon is the primary distributor of FRS to grocery stores makes the situation even more worrisome. Amazon is the focal point of a digital ecosystem, including e-commerce, mobile apps, and voice enabling personal assistants. A user of all the features offered by Amazon can virtually be tracked 24/7 by the company. Amazon’s ability to expand its FRS on a large scale is a solution to the analytical challenges that food retailers face. These solutions can be deployed in an anticompetitive and exploitative way. Amazon Go is another piece in the puzzle built by Amazon, integrating virtual and physical surveillance, with the ultimate goal of monetizing data collection, particularly by using the data for targeted advertising.

Alongside the potential price discrimination arising from FRS, the lack of user consent is alarming. The right for Amazon to collect, process, and analyze the facial data of customers may well be buried in the terms and conditions of not the Amazon Go stores themselves but in those of another product in Amazon’s ecosystem. The user may never be aware of the surveillance

⁵¹⁹ See SUBCOMMITTEE ON ANTITRUST, COMMERCIAL AND ADMINISTRATIVE LAW OF THE COMMITTEE ON THE JUDICIARY, *supra* note 3 at 267. Lina M. Khan, *Amazon’s Antitrust Paradox*, 126 YALE L. J., 780 (2017).

⁵²⁰ Rahman, *supra* note 24 at 245. (“Scoring algorithms magnify the concerns of public and private surveillance – which increasingly interact in ways that are hidden from view and accountability. It is important to note that one problem with these scoring systems lies in the degree to which they codify stereotypes, flawed information, or inaccuracies that can magnify racial, gender, and other forms of discrimination.”)

⁵²¹ Turow clarifies that FRS “involves taking complex measurements of facial images and converting them into a mathematic calculation called a ‘faceprint’, which is then compared against a faceprint database of photographs and video still images.” TUROW, *supra* note 18 at 226.

⁵²² *Id.* at 228.

⁵²³ Elizabeth Dwoskin & Evelyn M. Rusli, *The Technology that Unmasks Your Hidden Emotions*, THE WALL STREET JOURNAL, January 28, 2015.

⁵²⁴ TUROW, *supra* note 18 at 228.

employed by the company, despite recent evidence that consumers do care about their own personal data.⁵²⁵

Amazon Go's facial recognition technology starts a new chapter of surveillance capitalism in food retail markets. As argued, the most likely outcome of the reckless use of the technology is personal data exploitation and customer discrimination. Retailers will have more than enough data to achieve first-degree price discrimination. While price personalization will help the companies' bottom line, it represents a threat to economic welfare. Retailers will more effectively be able to discriminate customers by socio-economic factors. As Turow writes, "the data-driven stratification of customers encourages abandonment of the historical ideal of egalitarian treatment in the American marketplace."⁵²⁶

Businesses based on personal data are not natural. Shoppers should not accept and normalize surveillance in food retail markets or any other sector. Social discrimination based on facial recognition must be denounced and condemned, as has happened outside the United States.⁵²⁷ The next section outlines some strategies that can be implemented to reduce the harmful impact of personal data exploitation.

Conclusion: Policy Proposals

Gathering data on consumers' habits is not a new strategy for retailers, particularly in grocery markets. As Turow presents in his book, the introduction of the uniform bar code was beneficial to consumers.⁵²⁸ The new technology indeed provided retailers with valuable information on consumer habits, but it also allowed the stores to better control their inventory and promoted faster reshelving of products. In this sense, the data collection improved the customer experience by reducing the chances consumers would face empty shelves.

The strategy launched by Amazon in Go stores expands the scope of consumer surveillance. Amazon does not only collect a larger volume of data than its competitors, but it also gathers very granular data from its consumers. The FRS employed by the JWO technology allows greater degrees of consumer personalization and price discrimination by Amazon.

As mentioned in the previous section, the main concerns regarding Amazon's extensive data collection arise in the fields of privacy protection and antitrust. There is a significant intersection of both concerns. With that in mind, we suggest a concerted action from antitrust authorities and Congress to address these issues.

⁵²⁵ Rachel Kraus, *After update, only 4 percent of iOS users in U.S. let apps track them*, MASHABLE, 2021, <https://mashable.com/article/ios-14-5-users-opt-out-of-ad-tracking>.; on the economic effects of Apple privacy changes, see Kate Conger & Brian X. Chen, *A Change by Apple Is Tormenting Internet Companies, Especially Meta*, THE NEW YORK TIMES, February 3, 2022, <https://www.nytimes.com/2022/02/03/technology/apple-privacy-changes-meta.html>.

⁵²⁶ TUROW, *supra* note 18 at 244.

⁵²⁷ See Fernanda Catão de Carvalho & Igor Baden Powell, *Brazilian Cities and Facial Recognition: A Threat to Privacy*, FORDHAM URBAN LAW JOURNAL (2022), <https://news.law.fordham.edu/fulj/2022/01/06/brazilian-cities-and-facial-recognition-a-threat-to-privacy/>. Fernanda Catão de Carvalho & Igor Baden Powell, *Brazilian Cities and Facial Recognition: A Threat to Privacy*, FORDHAM URBAN LAW JOURNAL (2022), <https://news.law.fordham.edu/fulj/2022/01/06/brazilian-cities-and-facial-recognition-a-threat-to-privacy/>.

⁵²⁸ TUROW, *supra* note 18 at 62.

On the privacy side, it is remarkable that the United States does not have a particular law covering data privacy and consumer protection. Instead, the country has a myriad of laws that go by uncanny acronyms designed to tackle privacy issues in a specific market or sector.⁵²⁹ Only three states have passed and signed laws that address privacy concerns widely.⁵³⁰ Our proposal is for Congress to pass a broad privacy law applicable to the entire country. The *Information Transparency & Personal Data Control Act* introduced by congresswoman Suzan DelBene (D-Wa.) in 2021 is an interesting starting point.⁵³¹ The bill requires the Federal Trade Commission (“FTC”) to promulgate regulations related to sensitive personal information.

A broad and comprehensive federal bill would not only promote better data protection but also reduce the asymmetries of information due to the current variety of privacy laws. A federal law would also promote better legal certainty for companies, particularly by standardizing privacy rules and reducing compliance costs. The National Retail Federation (“NRF”) has already demonstrated its support for the bill and willingness to work together with Congress.⁵³² Even though the NRF initiative is noteworthy, academics and civil society must closely monitor how the text evolves in Congress to ensure that the bill is not a target for capture by certain economic sectors and interests.

It is notable that the bill requires the FTC to act on the privacy front, because agency action is also essential to tackling the competitive issues arising from the behavior of actors such as Amazon Go. The FTC Act calls the agency into action in order to “prevent persons, partnerships or corporations... from using unfair methods of competition in or affecting commerce and unfair or deceptive acts or practices in or affecting commerce.”⁵³³ Amazon Go’s JWO technology has deceptive traits that harm competition and the consumer. The competitive concerns arising out of the technology are intrinsically related to the privacy exploitation of consumers. We argue that the FTC has the legal mandate to pursue cases on which anticompetitive conducts are based on the misuse of personal data.

As has been discussed, competitors sought to create efficient and less labor-intensive alternatives to the checkout line for years. Most notably, Stop n Shop and Walmart ran pilot programs that used smartphone apps or handheld scanners to mimic the data collection methods of JWO.⁵³⁴ At its core, these programs were largely ineffective because of the unwillingness of customers to conduct the work of gathering their own data. Whether through the lens of a smartphone camera or the trigger of a mobile scanner, self-run checkout pilots were empirically proven to be ineffective. JWO technology is made to be inherently deceptive. The customers do not feel the burden of data gathering because they are the subject of an unspoken contract. As said previously, FRS is plainly passive for the customer. JWO asks shoppers to enjoy the efficiencies

⁵²⁹ Thorin Klosowski, *The State of Consumer Data Privacy Laws in the US (And Why It Matters)*, THE NEW YORK TIMES, September 6, 2021, <https://www.nytimes.com/wirecutter/blog/state-of-privacy-laws-in-us/>.

⁵³⁰ The states are California, Colorado and Virginia.

⁵³¹ Information Transparency & Personal Data Control Act, H.R. 1816, 117th Cong. (2021)

⁵³² J. Craig Shearman, *Retailers Support DelBene Bill Providing Balanced Approach to Privacy Law*, NATIONAL RETAIL FEDERATION (2021).

⁵³³ 15 U.S.C. §45 (2006).

⁵³⁴ Michael Suswal, *Why Retailers are Abandoning Scan & Go Self-Checkout*, MULTICHANNEL MERCHANT, 2020, <https://multichannelmerchant.com/blog/retailers-abandoning-scan-go-self-checkout/>.

of surveillance capitalism but not to question the intricacies of the system or the exploitation that is inherent to its success.

Yet, exploitation must not be inherent to the viability of JWO in the market. The proposed changes to existing data privacy legislation will allow JWO to remain a powerful product. Intellectual property protection and Amazon's existing scale mean that JWO will create operational cost savings even without personal privacy violations. These efficiencies will drive adoption not just throughout food retail but within all brick-and-mortar commerce. Fighting surveillance capitalism through enhanced data privacy laws will not lead to the avoidance of vital or efficiency-inducing technologies but rather adoption with a long-term focus on consumer privacy and welfare.

Beacons, Apps, and Privacy in Food Retail

Sean O'Brien

Introduction

Surveillance capitalism is now well-described in academic literature and the public arena, and is a potent lens for views into the shifting landscape of food retail. Our modern definition⁵³⁵ emerged in a criticism of "Big Other" and the challenges introduced to democratic institutions and norms. Within the context of food retail, we must note that this analysis of surveillance capitalism also describes the manner in which it departs from the centuries-long development of market capitalism. Most pertinently, the technological shift to invisible and unaccountable methods of data collection in physical retail spaces embodies the "unexpected and often illegible mechanisms of extraction, commodification, and control."⁵³⁶

Academic descriptions of these mechanisms accompany a substantial literature on Big Data in agriculture⁵³⁷ as well as significant contributions to critical food scholarship.⁵³⁸ Despite this increased scrutiny of the digital and societal aspects surrounding food retail, little scholarship is dedicated to digital signals in the food retail space itself: that is, the emergence of smart sensors and Internet-of-Things (IoT) devices⁵³⁹ within environments such as grocery store chains.

The absence of such investigation is worrisome, especially when coupled with steady innovation spurring retail environment intelligence.⁵⁴⁰ Where studies of Big Data in the food sector do occur, they tend to describe agricultural and farm deployments,⁵⁴¹ not systems gathering data on consumers.

535 John Bellamy Foster & Robert W. McChesney, *Surveillance Capitalism: Monopoly-Finance Capital, the Military-Industrial Complex, and the Digital Age*, MONTHLY REVIEW 1–31 (2014), https://monthlyreviewarchives.org/index.php/mr/article/view/MR-066-03-2014-07_1 (last visited Apr 23, 2022).

536 Shoshana Zuboff, *Big other: surveillance capitalism and the prospects of an information civilization*, 30 J INF TECHNOL 75–89 (2015), <https://doi.org/10.1057/jit.2015.5> (last visited Apr 23, 2022).

537 Andreas Kamilaris, Andreas Kartakoullis & Francesc X. Prenafeta-Boldú, *A review on the practice of big data analysis in agriculture*, 143 COMPUTERS AND ELECTRONICS IN AGRICULTURE 23–37 (2017), <https://www.sciencedirect.com/science/article/pii/S0168169917301230> (last visited Apr 23, 2022).

538 Adam M. Pine & Rebecca de Souza, *Including the Voices of Communities in Food Insecurity Research: An Empowerment-based Agenda for Food Scholarship*, 3 JOURNAL OF AGRICULTURE, FOOD SYSTEMS, AND COMMUNITY DEVELOPMENT 71–79 (2013), <https://foodsystemsjournal.org/index.php/fsj/article/view/189> (last visited Apr 23, 2022).

539 Debasis Bandyopadhyay & Jaydip Sen, *Internet of Things: Applications and Challenges in Technology and Standardization*, 58 WIRELESS PERS COMMUN 49–69 (2011), <https://doi.org/10.1007/s11277-011-0288-5> (last visited Apr 23, 2022).

540 Roberto Pierdicca et al., *Low cost embedded system for increasing retail environment intelligence*, in 2015 IEEE INTERNATIONAL CONFERENCE ON MULTIMEDIA EXPO WORKSHOPS (ICMEW) 1–6 (2015).

541 Andreas Kamilaris, Andreas Kartakoullis & Francesc X. Prenafeta-Boldú, *A review on the practice of big data analysis in agriculture*, 143 COMPUTERS AND ELECTRONICS IN AGRICULTURE 23–37 (2017), <https://www.sciencedirect.com/science/article/pii/S0168169917301230> (last visited Apr 26, 2022).

A huge quantity of data is being tracked about customers by retailers. Much of this collection occurs at the point of sale, but smart sensors⁵⁴² and app-based interaction⁵⁴³ provide a rich profile of customer demographics and behavior as well as movement through physical space. Studies of the shopping environment have traditionally separated pathways into the in-store, brick-and-mortar space and the digital, online shopping cart. As consumers bring their smartphones into the retail space, these lines are becoming blurred.⁵⁴⁴

To understand this shift toward a unified, digital retail experience, we must look at the trail of these digital interactions: the flow of data about consumers and its impact on them, beyond the point of sale. This conversation inevitably leads to discussions of governance, a debate fueled by numerous, visible, and large-scale abuses by Big Tech – made most tangible in the example of Facebook, rebranded Meta after disclosures about the company by Frances Haugen.⁵⁴⁵

While transgressions by Big Tech continue, scholars have proposed a compelling and robust governance framework: the information fiduciary model. This pioneering work by Jack Balkin⁵⁴⁶ on information fiduciaries has been impactful. The concept has received bipartisan support and has shaped proposed legislation at the federal and state levels, receiving praise from digital rights groups⁵⁴⁷ and proving resilient to criticism.⁵⁴⁸

Implementation of thoughtful legal frameworks for information disclosure and sharing is vital. Such advocacy and policy changes must be matched by strong understanding of the cyber landscape, especially where our sensor-rich physical spaces are concerned. The situation "on the ground", in regard to specific technological deployments, must be given cogent consideration. It is in this area that scholarship is lacking in the food retail space and, more troubling, this coincides with lack of transparency about implementation in the food sector.⁵⁴⁹

542 Mobeen Shahroz et al., *IoT-Based Smart Shopping Cart Using Radio Frequency Identification*, 8 IEEE ACCESS 68426–68438 (2020).

543 BORAM LIM, YING XIE & ERNAN HARUVY, *The Impact of Mobile-App Adoption on Grocery-Purchase Behavior*, (2018), <https://papers.ssrn.com/abstract=3159212> (last visited Apr 23, 2022).

544 Norm Johnston, *Blurred Lines*, in ADAPTIVE MARKETING: LEVERAGING REAL-TIME DATA TO BECOME A MORE COMPETITIVE AND SUCCESSFUL COMPANY 111–135 (Norm Johnston ed., 2015), https://doi.org/10.1057/9781137462930_9 (last visited Apr 23, 2022).

545 (PDF) *Statement of Frances Haugen, October 4, 2021*, U.S. Senate Committee on Commerce, Science, & Transportation (2021), <https://www.commerce.senate.gov/services/files/FC8A558E-824E-4914-BEDB-3A7B1190BD49> (last visited Apr 21, 2022).

546 Jack M. Balkin, *Information Fiduciaries and the First Amendment*, 49 U.C.D. L. REV. 1183 (2015), <https://heinonline.org/HOL/LandingPage?handle=hein.journals/davlr49&div=33> (last visited Apr 21, 2022).

547 Adam Schwartz and Cindy Cohn, “*Information Fiduciaries*” *Must Protect Your Data Privacy*, ELECTRONIC FRONTIER FOUNDATION (2018), <https://www.eff.org/deeplinks/2018/10/information-fiduciaries-must-protect-your-data-privacy> (last visited Apr 23, 2022).

548 Andrew Tuch, *A General Defense of Information Fiduciaries*, THE HARVARD LAW SCHOOL FORUM ON CORPORATE GOVERNANCE (2020), <https://corpgov.law.harvard.edu/2020/12/31/a-general-defense-of-information-fiduciaries/> (last visited Apr 23, 2022).

549 Marcella Lomba & Aguinaldo dos Santos, *Embedding transparency on digital services: A case study of the food sector* (2020), https://ep.liu.se/konferensartikel.aspx?series=ecp&issue=173&Article_No=20 (last visited Apr 23, 2022).

COVID-19 Complications

The impact of the COVID-19 pandemic on the retail industry cannot be overstated. Existing disparities across the United States were exacerbated, and reports indicate that U.S. food insecurity has doubled overall and tripled among households with children since 2019.⁵⁵⁰ This led to calls to expand benefits programs such as the Supplemental Nutrition Assistance Program (SNAP) and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) as well as recommendations to reform food donation programs and focus on nutritious foods and beverages.⁵⁵¹

Waves of quarantine closures signalled an unprecedented disruption of commerce,⁵⁵² and health policies resulted in new limitations and health and safety policies in an effort to protect customers and the wider public. Throughout 2020 and 2021, hygienic practices varied along with implementation of public policy, and by mid-2022 nearly all restrictions were lifted including requirements for mask-wearing by customers and travelers.⁵⁵³ Despite this relaxation of hygiene protocols, surveys report higher consumer expectations for in-store safety after the pandemic, with an impact on food retail for the foreseeable future.⁵⁵⁴

The limitations on movement imposed by pandemic public health policy have accelerated the shift toward digital shopping, triggering changes in e-commerce that are likely to last.⁵⁵⁵ A greater proportion of U.S. consumers are buying essential products, such as food and beverages, from online retailers and web-based shopping carts than ever before.⁵⁵⁶ Global surveys report

550 Jason M Nagata, Hilary K Seligman & Sheri D Weiser, *Perspective: The Convergence of Coronavirus Disease 2019 (COVID-19) and Food Insecurity in the United States*, 12 ADVANCES IN NUTRITION 287–290 (2021), <https://doi.org/10.1093/advances/nmaa126> (last visited Apr 21, 2022).

551 Katelin M. Hudak et al., *US state variations in food bank donation policy and implications for nutrition*, 27 PREV MED REP 101737 (2022), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8958359/> (last visited Apr 23, 2022).

552 Lawrence O. Gostin & Lindsay F. Wiley, *Governmental Public Health Powers During the COVID-19 Pandemic: Stay-at-home Orders, Business Closures, and Travel Restrictions*, 323 JAMA 2137–2138 (2020), <https://doi.org/10.1001/jama.2020.5460> (last visited Apr 23, 2022).

553 Tierney Sneed CNN, *CDC mask mandate for travelers no longer in effect following judge's ruling, official says*, CNN, <https://www.cnn.com/2022/04/18/politics/cdc-mask-mandate-ruling/index.html> (last visited Apr 23, 2022).

554 Yiru Wang et al., *COVID-19 and Retail Grocery Management: Insights From a Broad-Based Consumer Survey*, 48 IEEE ENGINEERING MANAGEMENT REVIEW 202–211 (2020).

555 Bhavna Galhotra & Ayushi Dewan, *Impact of COVID-19 on digital platforms and change in E-commerce shopping trends*, in 2020 FOURTH INTERNATIONAL CONFERENCE ON I-SMAC (IoT IN SOCIAL, MOBILE, ANALYTICS AND CLOUD) (I-SMAC) 861–866 (2020).

556 Coresight Research, *US Online Grocery Survey 2021: Post-Surge Consumer Behaviors*, CORESIGHT RESEARCH (2021), <https://coresight.com/research/us-online-grocery-survey-2021-post-surge-prospects/> (last visited Apr 23, 2022).

similar trends internationally.⁵⁵⁷

These developments fuel an exponential increase in the scale of data collection, often described using the umbrella term Big Data. Software for Big Data Analytics (BDA) attempts to provide actionable insights for this deluge of information and can be surprisingly effective, even resulting in consumer shopping addiction.⁵⁵⁸ Additionally, BDA is considered a vital part of retail inventory strategy that has accompanied supply chain volatility. Going forward, surveys indicate that companies will reduce their focus on sourcing from the supplier with the lowest costs, and just-in-time (JIT) manufacturing models are also due to decline, with analytics a key component of product sourcing and risk management.⁵⁵⁹

These changes in retail are being characterized as the “new normal”⁵⁶⁰ and, in part, this is due to concomitant factors external to the retail shopping experience. Supply chain issues, for example, continue to take center-stage since the global disruptions of late 2019 and early 2020. Massive food wastage⁵⁶¹ has accompanied a general disruption in the availability of goods, inflation has been a consistent concern that has fueled public scares,⁵⁶² livestock diseases like avian flu have compounded shortages and raised prices,⁵⁶³ and retail stores⁵⁶⁴ and restaurants⁵⁶⁵ across the U.S. have closed at an unprecedented rate.

Major grocery chains have been preparing for crisis and disruption for the past three decades, with chains like Kroger and Walmart planning to transform their stores with substantial changes

557 (PDF) *COVID-19 and E-Commerce Findings From A Survey Of Online Consumers in 9 Countries*, United Nations UNCTAD (2020), https://unctad.org/system/files/official-document/dtlstictinf2020d1_en.pdf (last visited Apr 21, 2022).

558 Sarah S. Alrumiah & Mohammed Hadwan, *Implementing Big Data Analytics in E-Commerce: Vendor and Customer View*, 9 IEEE ACCESS 37281–37286 (2021).

559 MH&L Staff, *Supply Chain Management Shifts Due to COVID-19*, MATERIAL HANDLING AND LOGISTICS (2020), <https://www.mhlnews.com/global-supply-chain/article/21143303/supply-chain-management-shifts-due-to-covid19> (last visited Apr 29, 2022).

560 Tejaswini Herath & Hemantha S. B. Herath, *Coping with the New Normal Imposed by the COVID-19 Pandemic: Lessons for Technology Management and Governance*, 37 INFORMATION SYSTEMS MANAGEMENT 277–283 (2020), <https://doi.org/10.1080/10580530.2020.1818902> (last visited Apr 23, 2022).

561 Yogesh K. Dwivedi et al., *Impact of COVID-19 pandemic on information management research and practice: Transforming education, work and life*, 55 INTERNATIONAL JOURNAL OF INFORMATION MANAGEMENT 102211 (2020), <https://www.sciencedirect.com/science/article/pii/S026840122031286X> (last visited Apr 16, 2022).

562 Vos, R., Glauber, J., Hernández, M. and Laborde, D., 2022. 10. *COVID-19 and food inflation scares. 2YEARS*, p.64.

563 Avian flu has spread to 27 states, sharply driving up egg prices, WASHINGTON POST, <https://www.washingtonpost.com/business/2022/04/16/bird-flu-egg-prices/> (last visited Apr 16, 2022).

564 Aisha Al-Muslim, *U.S. Retail Store Closures Hit Record in First Half*, WALL STREET JOURNAL, September 29, 2020, <https://www.wsj.com/articles/u-s-retail-bankruptcies-store-closures-hit-record-in-first-half-11601371800> (last visited Apr 16, 2022).

565 Avery Hartmans, *Roughly 17% of US restaurants have permanently shut down since the start of the pandemic as industry leaders warn of an “unprecedented economic decline,”* BUSINESS INSIDER, <https://www.businessinsider.com/thousands-us-restaurants-closed-coronavirus-pandemic-2020-12> (last visited Apr 16, 2022).

to traditional checkout and service models.⁵⁶⁶ Such planning appears to have paid off, though it is difficult to separate foresight from the benefits of scale in these gigantic corporations. The largest global companies, including food retailers Amazon and Walmart, generated enormous wealth during the pandemic.⁵⁶⁷

As these companies gain even more dominance over the lives of U.S. consumers, it is clear that the nutrition and obesity crisis will continue. A recent study of the e-commerce marketing strategies of food retailers such as Amazon, Safeway, and Walmart found substantial portions of promotions, the majority of promotions in some contexts, were for processed, energy-dense, and nutrient-poor food and beverages.⁵⁶⁸ Such digital campaigns intend to influence customer decisions and produce impulsive purchases, and this coincides with the conversion of the art of marketing into BDA science.

Silent Sound

In the stormy environment introduced by the pandemic, a variety of emerging technologies were introduced to the food retail space. Most visible are contactless alternatives to traditional manual processes, such as ordering and payment. Industry analysts are predicting a \$5.9 billion opportunity for self-checkout systems globally,⁵⁶⁹

In 2021, Whole Foods debuted a method of payment that scans the palms of a person's hand as they hold it above a kiosk, without requiring touch. These "Amazon One" sensors were originally launched at Amazon store locations but are planned to roll out in Whole Foods chains across the U.S. in addition to the company's "Just Walk Out" automatic payment technology.⁵⁷⁰

Such sensor-laden systems are being deployed across traditional retail environments. Examples such as ultrasonic or near-ultrasonic (nUHF) audio beacons, considered exotic technology or edge cases before the pandemic, are now back in vogue. A prime example is LISNR, a firm spotlighted by MasterCard's "startup engagement program" in 2020 for its "intelligent dog

566 Five grocery industry trends to watch | McKinsey, <https://www.mckinsey.com/industries/retail/our-insights/digital-disruption-at-the-grocery-store> (last visited Apr 16, 2022).

567 https://www.bib.irb.hr/1167998/download/1167998.EMAN_2021-Selected-WEB.pdf#page=19 (last visited Apr 16, 2022).

568 Fast food industry market share worldwide, by brand 2019, STATISTA, <https://www.statista.com/statistics/273057/value-of-the-most-valuable-fast-food-brands-worldwide/> (last visited Apr 16, 2022).

569 Global Industry Analysts Inc, *A \$5.9 Billion Global Opportunity for Self-Checkout Systems by 2026 - New Research from StrategyR*, <https://www.prnewswire.com/news-releases/a-5-9-billion-global-opportunity-for-self-checkout-systems-by-2026---new-research-from-strategyr-301493574.html> (last visited Apr 26, 2022).

570 Annie Palmer, *Amazon is bringing palm-scanning payment system to Whole Foods stores*, CNBC (2021), <https://www.cnn.com/2021/04/21/amazon-whole-foods-getting-palm-scanning-payment-system.html> (last visited Apr 23, 2022).

whistle” payment systems.⁵⁷¹

LISNR’s beacons emerged in the wave of nUHF tracking technology nearly a decade before the COVID-19 pandemic, joining a variety of advertising technology companies in sending “silent” audio to smartphone microphones without consumer awareness.⁵⁷² In these early deployments, speakers inside of retail stores broadcast nUHF messages beyond the range of adult human hearing, communicating with a surreptitious Software Development Kit (SDK) inside of smartphone apps via the device’s open microphone. Software modulation of the audio takes the form of Frequency Shift Keying (FSK), with vendors implementing proprietary methods of varying complexity.⁵⁷³

Actions such as coupons and advertisement popups can be triggered by this mechanism, allowing active engagement with the consumer, such as push notifications, as long as the smartphone microphone can be turned on. Hundreds⁵⁷⁴ of apps have embedded SDKs for this purpose, allowing stores to reach customers whether or not they installed an app specifically associated with their brand.

These methods of clandestine communication with smartphones were classified as side-channel attacks by security researchers, who focused on an SDK tracker developed by the company SilverPush. This SDK triggered smartphones to communicate with nUHF beacons in McDonald’s restaurants in the Philippines.⁵⁷⁵

SilverPush became the subject of a Federal Trade Commission warning in 2016, with letters being sent to smartphone app developers who embedded the SilverPush SDK. The letters “note that the software would be capable of producing a detailed log of the television content viewed while a user’s mobile device was turned on for the purpose of targeted advertising and analytics” and emphasized the covert method of activating microphones without consumer awareness, as well as SilverPush’s pairing with smart televisions. The FTC notice stated, “nowhere do the apps in question provide notice that the app could monitor television-viewing habits, even if the app is not in use.”⁵⁷⁶

571 Will ultrasonic payments take contactless to the next level?, <https://www.mastercard.com/news/perspectives/2020/will-ultrasonic-payments-take-contactless-to-the-next-level/> (last visited Apr 23, 2022).

572 Ultrasonic Tracking, TWENTY THOUSAND HERTZ, <https://www.20k.org/episodes/ultrasonictracking> (last visited Apr 20, 2022).

573 Dan Arp et al., *Bat in the Mobile: A Study on Ultrasonic Device Tracking*, (2017), <https://www.semanticscholar.org/paper/Bat-in-the-Mobile-%3A-A-Study-on-Ultrasonic-Device-Arp-Quiring/3142d76c7fb55e4ff71bd9216ca1ff75c235aa64> (last visited Apr 20, 2022).

574 Exodus Statistics, Most frequent trackers in Google Play, <https://reports.exodus-privacy.eu.org/en/trackers/stats/> (last visited Apr 20, 2022).

575 SilverPush Unmasked, <https://github.com/MAVProxyUser/SilverPushUnmasked> (last visited Apr 23, 2022).

576 FTC Issues Warning Letters to App Developers Using ‘Silverpush’ Code, FEDERAL TRADE COMMISSION (2016), <http://www.ftc.gov/news-events/news/press-releases/2016/03/ftc-issues-warning-letters-app-developers-using-silverpush-code> (last visited Apr 23, 2022).

These statements by the FTC about SilverPush spurred research interest in audio beacons and their interplay with SDK trackers, and SilverPush was studied alongside LISNR and a handful of other SDKs as a side-channel security threat.⁵⁷⁷ The reputation of this technology was further marred by implementations from FidZup, who focused on shopping mall deployments,⁵⁷⁸ and Alphonso, who targeted consumers in their living rooms.⁵⁷⁹ FidZup would eventually become the subject of a GDPR complaint by French data protection authority *Commission nationale de l'informatique et des libertés* (CNIL)⁵⁸⁰ and Alphonso was exposed for its surveillance of consumers via smart televisions and mobile games, with a notable focus on advertising via apps geared toward children.⁵⁸¹

Due in part to this front-page infamy for nUHF audio surveillance, as well as improved privacy controls on smartphones⁵⁸² and apps specifically developed to block nUHF tracking,⁵⁸³ companies utilizing the technology have altered their approaches. SilverPush “emerged from the ashes” by 2019 and claims over 100 clients such as Nestle, Spotify, and Unilever.⁵⁸⁴ SilverPush now focuses on automated content recognition (ACR) that relies upon machine learning and content libraries to sync advertisements across televisions, smartphones, and other devices. Alphonso followed a similar path and was acquired by LG Electronics.⁵⁸⁵

LISNR, however, has stayed firmly in the nUHF game with a push toward contactless payments. Questions remain about the usage of this technology to track users and build data profiles, as well as whether or not consumers are properly informed of the advertising technology they are exposed to by using nUHF payment methods. The Radius SDK, part of the LISNR suite of products, is specifically designed for “one-to-many long range ultrasonic data transfer” between devices greater than ten feet.⁵⁸⁶ This audio beacon software is available for popular operating

577 Daniel Arp et al., *Privacy Threats through Ultrasonic Side Channels on Mobile Devices*, in 2017 IEEE EUROPEAN SYMPOSIUM ON SECURITY AND PRIVACY (EUROSP) 35–47 (2017).

578 FIDZUP ULTRASONIC LOCATION TRACKING (GEOFENCING), https://www.youtube.com/watch?v=Xweq1eF_eP4 (last visited Apr 23, 2022).

579 A brief data analysis of TV ads data from Alphonso, <https://github.com/kupagulova/alphonso-analysis-demo> (last visited Apr 23, 2022).

580 This early GDPR advertising technology strike puts the spotlight on consent, TECHCRUNCH, <https://social.techcrunch.com/2018/12/13/this-early-gdpr-advertising-technology-strike-puts-the-spotlight-on-consent/> (last visited Apr 23, 2022).

581 Sapna Maheshwari, *That Game on Your Phone May Be Tracking What You're Watching on TV*, THE NEW YORK TIMES, December 28, 2017, <https://www.nytimes.com/2017/12/28/business/media/alphonso-app-tracking.html> (last visited Apr 23, 2022).

582 Konrad Kollnig et al., *Goodbye Tracking? Impact of iOS App Tracking Transparency and Privacy Labels*, ARXIV:2204.03556 [CS] (2022), <http://arxiv.org/abs/2204.03556> (last visited Apr 20, 2022).

583 PilferShush, <https://www.cityfreqs.com.au/pilfer.php> (last visited Apr 23, 2022).

584 Privacy terror to advertising technology: SilverPush's rise from the ashes, THE KEN (2019), <https://the-ken.com/story/silverpush-rise-from-the-ashes/> (last visited Apr 23, 2022).

585 Advertising Firm Alphonso is now LG Ads, LG ADS SOLUTIONS, <https://lgads.tv/alphonso-now-lg-ads/> (last visited Apr 23, 2022).

586 Radius, LISNR (2019), <https://lisnr.com/products/radius/> (last visited Apr 23, 2022).

systems, as well as installation on IoT devices. The primary use cases for Radius SDK are “radius engagement” and “loyalty couponing”, rather than contactless checkout.⁵⁸⁷

Radius SDK is reminiscent of the nUHF geofencing products from the company CopSonic, presented as a solution for “loyalty and couponing services”⁵⁸⁸ that follows shoppers throughout their “consumption path” while “triggering impulse buying”.⁵⁸⁹ These goals reveal a purpose behind contactless technology that lurks just below the surface of rhetoric about hygiene – increased surveillance of shoppers.

Bluetooth Beacons

Perhaps the most common tracking devices in a retail context are Bluetooth Low Energy (BLE) beacons. These are IoT transmitters, a subset of Bluetooth-capable hardware that broadcasts to other nearby devices like smartphones. When a BLE beacon communicates with a smartphone, actions can be triggered using Bluetooth networking as the communications channel.

The financial sector valued the global BLE beacon market at more than \$3 billion in 2020 and current market projections give a value of nearly \$104 billion by 2030.⁵⁹⁰ This is exponentially higher than projections based upon 2018 numbers.⁵⁹¹ The rosy outlook is bolstered by pandemic deployments of IoT technology in retail that utilize BLE tracking of consumers.⁵⁹²

BLE beacons have a decade-long history in retail, debuting in the early 2010’s to improve on other location-aware advertising technologies such as near-field communication (NFC). By 2016, NFC was largely displaced by BLE beacon deployments using Google Eddystone and Physical Web⁵⁹³ as well as Apple iBeacon.⁵⁹⁴

Since the slowdown of Google’s beacon projects in 2018,⁵⁹⁵ Apple iBeacon has become the *de*

587 Retail, LISNR (2018), <https://lisnr.com/solutions/retail/> (last visited Apr 23, 2022).

588 CopSonic - Ultrasonic authentication, <https://www.copsonic.com/> (last visited Apr 23, 2022).

589 PROXIMOOS - ULTRASOUNDS APPLIED TO GEOMARKETING, <https://www.youtube.com/watch?v=KIGGw4EIJLg> (last visited Apr 23, 2022).

590 Smart Beacon Market Size, Share & Growth | Analysis - 2030, ALLIED MARKET RESEARCH, <https://www.alliedmarketresearch.com/smart-beacon-market-A13114> (last visited Apr 23, 2022).

591 BLE Beacons Market Size to Hit USD 15.49 Billion by 2025 at a 26.8% CAGR - Report by Market Research Future (MRFR), <https://finance.yahoo.com/news/ble-beacons-market-size-hit-182100116.html> (last visited Apr 23, 2022).

592 Beacon Technology: Why the Market is Booming | PlotProjects, PLOT PROJECTS (2022), <https://www.plotprojects.com/blog/beacon-technology-why-the-market-is-booming/> (last visited Apr 23, 2022).

593 Debasis Bhattacharya, Mario Canul & Saxon Knight, *Impact of the Physical Web and BLE Beacons*, in PROCEEDINGS OF THE 5TH ANNUAL CONFERENCE ON RESEARCH IN INFORMATION TECHNOLOGY 53 (2016), <https://doi.org/10.1145/2978178.2978179> (last visited Apr 23, 2022).

594 Nic Newman, *Apple iBeacon technology briefing*, 15 J DIRECT DATA DIGIT MARK PRACT 222–225 (2014), <https://doi.org/10.1057/dddmp.2014.7> (last visited Apr 23, 2022).

595 Discontinuing support for Android Nearby Notifications, ANDROID DEVELOPERS BLOG, <https://android-developers.googleblog.com/2018/10/discontinuing-support-for-android.html> (last visited Apr 23, 2022).

facto BLE beacon standard and the model emulated in subsequent designs by competitors.⁵⁹⁶ The scale of Apple’s BLE capabilities is exemplified by the vast “Find My” network utilized by Apple AirTags, estimated to consist of approximately one billion devices capable of tracking Bluetooth signals.⁵⁹⁷

The number of BLE beacons in the wild is unknown, but estimates and forecasts put the number in the hundreds of millions⁵⁹⁸ and this matches the projected growth curve of IoT devices into the billions.⁵⁹⁹ The physical size of BLE sensors has shrunk by an order of magnitude in recent years, and millimeter-scale beacons were created by researchers in 2019. These tiny BLE beacons consume only 0.6 milliwatts of electricity while transmitting data and could “broadcast for 11 years using a typical 5.8-millimeter coin battery.”⁶⁰⁰

The power of BLE beacons lies in their ability to detect the proximity of other devices, such as a smartphone or smart wearable (e.g., Apple iWatch). Combining multiple BLE beacons in the same physical space improves the accuracy of this detection. With ample BLE beacons in a food retail setting, for example, shoppers can be tracked as they walk down an aisle and a profile can be built from their actions – how long they dwell in a specific place, what shelf they are likely looking at, and the rest of their “customer journey”.⁶⁰¹

This method of tracking and profiling consumers can be referred to as “geofencing”, with the “fence” being the defined boundaries of the space being surveilled.⁶⁰² Putting aside the security issues that have emerged in environments rich with BLE beacons⁶⁰³ and the difficulty of patching firmware on these devices to mitigate risk, there is additional cause for concern about

596 Understanding the different types of BLE Beacons | Mbed, <https://os.mbed.com/blog/entry/ble-beacons-uribeacon-altbeacons-ibeacon/> (last visited Apr 20, 2022).

597 Debating between Apple s or a Tile Mate? Here’s what we think., IMORE (2021), <https://www.imore.com/apple-s-vs-tile-mate> (last visited Apr 20, 2022).

598 Beacons on Track to Hit 400M Deployed by 2020 Reports Unacast, (2016), <https://www.businesswire.com/news/home/20160126005779/en/Beacons-on-Track-to-Hit-400M-Deployed-by-2020-Reports-Unacast> (last visited Apr 20, 2022).

599 Gartner Says a Thirty-Fold Increase in Internet-Connected Physical Devices by 2020 Will Significantly Alter How the Supply Chain Operates, GARTNER, <https://www.gartner.com/en/newsroom/press-releases/2014-03-24-gartner-says-a-thirty-fold-increase-in-internet-connected-physical-devices-by-2020-will-significantly-alter-how-the-supply-chain-operates> (last visited Apr 20, 2022). <https://dl.acm.org/doi/10.1145/2978178.2978179> (last visited Apr 20, 2022).

600 Teeny-Tiny Bluetooth Transmitter Runs on Less Than 1 Milliwatt, IEEE SPECTRUM (2019), <https://spectrum.ieee.org/teenytiny-bluetooth-transmitter-runs-on-less-than-1-milliwatt> (last visited Apr 23, 2022).

601 (PDF) Maria Bajak, *Beacons as the Touchpoints on the Customer Journey*, https://www.researchgate.net/profile/Maria-Bajak-2/publication/359747291_BEACONS_AS_THE_TOUCHPOINTS_ON_THE_CUSTOMER_JOURNEY/links/624c6d76b0cee02d69541bdd/BEACONS-AS-THE-TOUCHPOINTS-ON-THE-CUSTOMER-JOURNEY.pdf (last visited Apr 21, 2022).

602 Jan Hendrik Betzing, *Beacon-based Customer Tracking across the High Street: Perspectives for Location-based Smart Services in Retail*, <https://core.ac.uk/display/301375406> (last visited Apr 23, 2022).

603 Bluetooth Low Energy Spoofing Attack (BLESA) Endangers Billions of Devices, (2020), <https://sensorstechforum.com/blesa-attack-endangers-billions-devices/> (last visited Apr 23, 2022).

the manipulation of shoppers and the tangible harms introduced by BLE and its associated geofencing practices.

Since the early days of beacon engineering, it was understood that these devices presented significant opportunity for abuse. In 2016, a complex scheme for identifiers was proposed by Google to limit the “privacy and security exposure” presented by outside attackers of beacon systems, stating that “broadcast devices are typically susceptible to tracking and spoofing based on the IDs used by the beacons”.⁶⁰⁴ Apple iBeacon systems are also vulnerable to spoofing attacks.⁶⁰⁵

Marketing research openly describes the targeted actions that can occur in the geofencing context, such as coupons for specific consumers based upon their behavior, as “price discrimination”. This literature also discusses the utility of the approach in contexts where such discrimination is allowed.⁶⁰⁶ Coupled with the rich data available on smartphones and vast consumer demographic databases, the practice of geofencing raises serious questions about economic and social discrimination as well as anti-competitive practice.⁶⁰⁷

BLE beacon usage can be combined with branded apps for food retail chains, tangibly affecting the consumer relationship. Research shows a rapid normalization of the hybrid app-and-beacon world, with consumers becoming acculturated to interaction based upon this model.⁶⁰⁸ Critical studies of these technologies and the associated analytics techniques focus upon the “nudge”: a small or subtle push to manipulate consumer choice that is facilitated by tracking technology and app-based incentivization. Path dependencies embodied by the nudge are deeply anti-democratic and, in the context of retail and beyond, reveal a “soft paternalism” that reinforces and perpetuates social biases and norms.⁶⁰⁹

The nudge is a concept for social and economic control that drives individuals into actions based upon cues but also discourages deviation from these careful curated patterns of behavior. Scholars have warned about the ability for such behavioral manipulation to “[direct] eaters

604 AVINATAN HASSIDIM ET AL., *Ephemeral Identifiers: Mitigating Tracking & Spoofing Threats to BLE Beacons*, (2016), <https://developers.google.com/beacons/eddystone-eid-preprint.pdf> (last visited Apr 20, 2022).

605 Hacking the CES Scavenger Hunt - Make:, MAKE: DIY PROJECTS AND IDEAS FOR MAKERS (2001), <https://makezine.com/2014/01/03/hacking-the-ces-scavenger-hunt/> (last visited Apr 20, 2022).

606 Rosa-Branca Esteves & Joana Resende, *Competitive Targeted Advertising with Price Discrimination*, 35 MARKETING SCIENCE 576–587 (2016), <https://pubsonline.informs.org/doi/10.1287/mksc.2015.0967> (last visited Apr 23, 2022).

607 Joseph Turow & Lee McGuigan (2014). *Retailing and Social Discrimination: The New Normal?* In S. P. Gangadharan (Ed.), *Data and Discrimination: Collected Essays* (pp. 27-29). Open Technology Institute. <https://www.newamerica.org/oti/policy-papers/data-and-discrimination/> (last visited Apr 23, 2022).

608 Christian Reuter & Inken Leopold, *Mobile and Interactive Media in the Store? Design Case Study on Bluetooth Beacon Concepts for Food Retail*, MEDIA IN ACTION. INTERDISCIPLINARY JOURNAL ON COOPERATIVE MEDIA 99–134 (2018), <https://mediarep.org/handle/doc/17068> (last visited Apr 23, 2022).

609 Jan Schnellenbach, *Nudges and norms: On the political economy of soft paternalism*, 28 EUROPEAN JOURNAL OF POLITICAL ECONOMY 266–277 (2012), <https://www.sciencedirect.com/science/article/pii/S0176268011001480> (last visited Apr 23, 2022).

toward particular retail environments and brands”, notably without consideration of nutritional value or health concerns like obesity. Even more startling, the nudge conceptualizes people as passive herds of consumers rather than as citizens, “[threatening] the agency of individuals and communities to take back control from a highly corporatized and concentrated foodscape.”⁶¹⁰

Though at least one study has explored the capability to nudge shoppers into healthier food choices,⁶¹¹ it does not reflect the common practice of nudging in food retail environments via consumer targeting. As more “science fiction” solutions for manipulating customer behavior emerge as real-world vectors for surveillance, such as the ambient light tracking of grocery store shoppers designed by Phillips,⁶¹² nudging could become a ubiquitous, clandestine, and constant component of the shopping experience.

Privacy Predicament

Sensor-rich surveillance environments, such as grocery stores with beacon deployments, are rife for abuse. The history of data breaches in retail is not encouraging from a cybersecurity perspective, with breaches at hundreds of U.S. grocery stores and restaurants in the past five years,⁶¹³ and a rising trend of point-of-sale (POS) breaches occurring due to third-parties.⁶¹⁴ It is in this third-party data sharing that the weaknesses of consumer surveillance strategies are exposed, especially when paired with data mining and analytics techniques that generate ever-more data.

Whatever the approach to regulation, governance, and, ultimately, control of retail data, we must understand a fundamental maxim coined by security expert Bruce Schneier: data is a toxic asset and it “continues to be toxic as long as it sits in a company’s computers and networks.”⁶¹⁵ The solutions are to avoid collecting more data than absolutely necessary and to delete data after it is no longer needed or required by law.

This also limits third-party data sharing, framing organizational partnerships as choices that

610 Michael Carolan, *Big data and food retail: Nudging out citizens by creating dependent consumers*, 90 GEOFORUM 142–150 (2018), <https://www.sciencedirect.com/science/article/pii/S0016718518300423> (last visited Apr 23, 2022).

611 Jared T. McGuirt et al., *EatWellNow: Formative Development of a Place-Based Behavioral “Nudge” Technology Intervention to Promote Healthier Food Purchases among Army Soldiers*, 14 NUTRIENTS 1458 (2022), <https://www.mdpi.com/2072-6643/14/7/1458> (last visited Apr 23, 2022).

612 Dan Nosowitz, *Great, Now Even Light Bulbs Are Spying On You*, FAST COMPANY (2014), <https://www.fastcompany.com/3026782/great-now-even-light-bulbs-are-spying-on-you> (last visited Apr 20, 2022).

613 Holly Everett, *POS Data Breaches: A List of Compromised Restaurants*, RESTAURANT INSIDER (2020), <https://upserve.com/restaurant-insider/pos-data-breaches/> (last visited Apr 23, 2022).

614 The Latest Retail Breaches: Third-Party Data Breaches, CYBERGRX, <https://www.cybergrx.com/resources/research-and-insights/blog/the-latest-retail-breaches-third-party-data-breaches> (last visited Apr 23, 2022).

615 Data Is a Toxic Asset - Schneier on Security, https://www.schneier.com/blog/archives/2016/03/data_is_a_toxic.html (last visited Apr 26, 2022).

hinge on necessity and trust rather than a talent for behavioral profiling of customers. Restricting collection to business or operational purposes alone mirrors emerging legal frameworks, as conceptions of data in the context of a “specific”, “business”, or “commercial” purpose are formalized in privacy regulation such as the EU/EAA GDPR⁶¹⁶ and California’s CCPA.⁶¹⁷ The CCPA’s framework for privacy, in particular, has been broadly accepted across the U.S. as other states mirror it in their own legislation.⁶¹⁸

Breaches expose the fundamental toxicity of data at higher scales and frequencies each week, and yet the hype for Big Data continues. Recent surveys of retailers reveal the scaling up of BDA, utilizing “click and collect” or Buy Online Pickup In Store (BOPIS) processes to analyze consumers, as well as deploying more sensors in stores. In a 2017 survey of retailers, 70% of respondents planned deployment of “sensors for tracking customer footpath” and 71% planned “beacons for location-based marketing” with 75% of stores planning to “not only know when specific customers are in the store, but... also be able to customize the store visit for them by 2021.”⁶¹⁹

Whether or not these plans are bearing fruit in the form of quantifiable sales, retailers rely heavily upon data about their customers and their behavior. Retailers are also increasing their data footprint with new digital deployments that replace analog equivalents. Customer loyalty cards are a prime example of the shift to digital as they are rapidly being phased out for smartphone apps. Surveys suggest 70% of consumers are currently managing their rewards or incentive programs via a smartphone app.⁶²⁰

Automation of the grocery store is a key shift in food retail. Shoppers already accustomed to grocery store robots that roam the aisles and point out spills⁶²¹ and we are seeing the advent of smart shopping carts that can automatically scan products. Retail experiments for such checkout-free technologies are happening at Price Chopper, Giant Eagle, and Wegmans in addition to the pilots at Whole Foods and Amazon stores.⁶²² Facial recognition technology is also rampant

616 GDPR: Specific Purpose, <https://www.morganlewis.com/pubs/2018/12/gdpr-specific-purpose> (last visited Apr 26, 2022).

617 Data Purpose Can Make All the Difference, PROTECTO (2020), <https://www.protecto.ai/business-purpose-vs-commercial-purpose-under-the-ccpa/> (last visited Apr 26, 2022).

618 Anupam Chander, Margot E. Kaminski & William McGeeveran, *Catalyzing Privacy Law*, 105 MINN. L. REV. 1733 (2020), <https://heinonline.org/HOL/Page?handle=hein.journals/mnlr105&id=1773&div=&collection=>.

619 https://www.zebra.com/content/dam/zebra_new_ia/en-us/solutions-verticals/vertical-solutions/retail/vision-study/retail-vision-study-2017-en-gb.pdf

620 (PDF) Wirecard, *Consumer Incentives 2019: The Digital Transformation of Rewards, Rebates, and Loyalty*, https://nmgprod.s3.amazonaws.com/media/files/97/e3/97e3466268a5f6a39748b0acf861188d/asset_file.pdf (last visited Apr 22, 2022).

621 Luther Turmelle, *ShopRite launches test of robot Tally to compete with Stop & Shop’s Marty — but it’s not in CT yet*, GREENWICH TIME (2022), <https://www.greenwichtime.com/business/article/ShopRite-launches-test-of-robot-Tally-to-compete-17066704.php> (last visited Apr 26, 2022).

622 Annie Palmer Repko Melissa, *How the coronavirus pandemic helped convince grocery chains to experiment with new tech*, CNBC (2020), <https://www.cnbc.com/2020/09/06/how-coronavirus-convinced-grocery-chains-to-experiment-with-new-tech-.html> (last visited Apr 26, 2022).

across retail⁶²³ targeting “subjects of interest” with accompanying and well-known algorithmic bias.⁶²⁴

Against this backdrop of ubiquitous retail surveillance and commodification of the shopping experience, technologies that utilize sensors to communicate with smartphones and track consumers hold a special place. The smartphone itself presents an extraordinary danger to the privacy and security of consumers that is amplified via apps and, notably, leaky or malicious SDKs.⁶²⁵

Both the Android and iOS app store ecosystems are filled with SDK trackers.⁶²⁶ Such SDKs often provide useful functionality for app developers, in addition to user tracking, and apps integrate this code into the builds of their apps for features such as maps, communication with Bluetooth headsets, or even graphics and emojis.

As such, app developers may be completely unaware of the extent of privacy invasion represented by these trackers and, across the wide spectrum of apps available for smartphones, there is little control of the software supply chain.⁶²⁷ Even developers with a commitment to end-user privacy make mistakes and include SDK trackers in their products.⁶²⁸

Large-scale studies have been conducted in regard to the privacy of smartphone apps with a focus on third-party tracking and SDKs⁶²⁹ in addition to the evidence offered by Free and Open-Source Software (FOSS) tools such as Exodus Privacy’s app scanner.⁶³⁰ Privacy Lab, an initiative of the Information Society Project at Yale Law School,⁶³¹ released one of the earliest repositories of SDK tracker signatures in 2017, which grew to approximately 80 SDKs

623 Rebecca Heilweil, *From Macy’s to Albertsons, facial recognition is already everywhere*, VOX (2021), <https://www.vox.com/2021/7/15/22577876/macys-fight-for-the-future-facial-recognition-artificial-intelligence-stores> (last visited Apr 26, 2022).

624 Tom Chivers, *Facial recognition... coming to a supermarket near you*, THE OBSERVER, August 4, 2019, <https://www.theguardian.com/technology/2019/aug/04/facial-recognition-supermarket-facewatch-ai-artificial-intelligence-civil-liberties> (last visited Apr 26, 2022).

625 ISP Privacy Lab Publishes Research on Hidden Trackers, <https://law.yale.edu/yls-today/news/isp-privacy-lab-publishes-research-hidden-trackers> (last visited Apr 20, 2022).

626 K. Kollnig et al., *Are iPhones really better for privacy? A comparative study of iOS and Android apps*, 2022 PROCEEDINGS ON PRIVACY ENHANCING TECHNOLOGIES (2021), <https://ora.ox.ac.uk/objects/uuid:f29c7413-222e-45bf-ac0c-de927df105ab> (last visited Apr 20, 2022).

627 Sara Morrison, *The hidden trackers in your phone, explained*, VOX (2020), <https://www.vox.com/recode/2020/7/8/21311533/sdks-tracking-data-location> (last visited Apr 20, 2022).

628 Jason Evangelho, *[UPDATED] Purism Explains Why There Are Trackers In Librem One Chat*, FORBES, <https://www.forbes.com/sites/jasonevangelho/2019/05/06/purism-explains-why-there-are-trackers-in-librem-one-chat/> (last visited Apr 20, 2022).

629 Alex Hern, *Three quarters of Android apps track users with third party tools – study*, THE GUARDIAN, November 28, 2017, <https://www.theguardian.com/technology/2017/nov/28/android-apps-third-party-tracker-google-privacy-security-yale-university> (last visited Apr 26, 2022).

630 New Collaborations on Exposing Tracking | F-Droid - Free and Open Source Android App Repository, <https://f-droid.org/2017/12/14/new-collaborations-on-exposing-tracking.html> (last visited Apr 20, 2022).

631 The author is founder and lead researcher at Privacy Lab, an initiative of the Information Society Project.

embedded in thousands of apps by 2019.⁶³²

Security industry studies reveal clusters of SDK trackers that are linked to U.S. military contractors,⁶³³ shipped in healthcare apps,⁶³⁴ attributed to international criminal networks,⁶³⁵ and, in at least one case, surveilling millions of users for U.S. intelligence.⁶³⁶ Though SDKs are occasionally banned from app stores for such activities, malicious SDKs have persisted in app stores after a nominal banning, without the knowledge of the stewards of those marketplaces.⁶³⁷

Third-party data sharing is the primary conduit for user profiling in the aforementioned examples, as well as in less-prominent apps via advertising networks owned by intermediaries such as Google and Facebook. Consumer awareness of privacy pitfalls has increased, resulting in public demand for privacy features. A 2019 survey found that 65% of consumers consider a product's data sharing with third parties when deciding whether or not to do business with a company.⁶³⁸

Apple has put its weight behind privacy in marketing, with campaigns acknowledging consumer concerns about surveillance a now-familiar component of the trillion-dollar brand.⁶³⁹ Unfortunately, the reality on city streets does not match the pro-privacy billboards hanging above. Apple's iBeacon is a central component of smart city planning⁶⁴⁰ and the company's BLE-powered AirTags have gained a shady reputation as stalker hardware in a short time.⁶⁴¹

632 Yale Privacy Lab Tracker Profiles, <https://github.com/YalePrivacyLab/tracker-profiles> (last visited Apr 21, 2022).

633 Joseph Cox, *More Muslim Apps Worked with X-Mode, Which Sold Data to Military Contractors*, VICE (2021), <https://www.vice.com/en/article/epdkze/muslim-apps-location-data-military-xmode> (last visited Apr 19, 2022).

634 Opioid addiction treatment apps found sharing sensitive data with third parties, TECHCRUNCH, <https://social.techcrunch.com/2021/07/07/opioid-addiction-treatment-apps-found-sharing-sensitive-data-with-third-parties/> (last visited Apr 19, 2022).

635 TeaBot is now spreading across the globe | Cleafy Labs, <https://www.cleafy.com/cleafy-labs/teabot-is-now-spreading-across-the-globe> (last visited Apr 19, 2022).

636 Byron Tau in Washington and Robert McMillan in San Francisco, *Google Bans Apps With Hidden Data-Harvesting Software*, WALL STREET JOURNAL, April 6, 2022, <https://www.wsj.com/articles/apps-with-hidden-data-harvesting-software-are-banned-by-google-11649261181> (last visited Apr 19, 2022).

637 Thomas Claburn in San Francisco, *Oops: Google admits failing to wipe all Android apps with location-selling X-Mode SDK from its Play Store*, https://www.theregister.com/2021/02/06/google_xmode_android_apps_play_store/ (last visited Apr 19, 2022).

638 New Poll Shows Consumers' Expectations on Data Privacy Evolve, But So Does Technology, SECURITY INTELLIGENCE, <https://securityintelligence.com/posts/new-poll-shows-consumers-expectations-on-data-privacy-evolve-but-so-does-technology/> (last visited Apr 19, 2022).

639 Sean Hollister, *Apple's new privacy ad imagines Thanos-snapping your stalkers out of existence*, THE VERGE (2021), <https://www.theverge.com/2021/5/20/22446220/apple-privacy-ad-video-ad-tracking-transparency> (last visited Apr 22, 2022).

640 Petros Spachos & Konstantinos Plataniotis, *Chapter 29 - Beacons and the City: Smart Internet of Things, in COOPERATIVE AND GRAPH SIGNAL PROCESSING 757-776* (Petar M. Djurić & Cédric Richard eds., 2018), <https://www.sciencedirect.com/science/article/pii/B9780128136775000298> (last visited Apr 20, 2022).

641 Albert Fox Cahn, *Apple's AirTags Are a Gift to Stalkers*, WIRED, <https://www.wired.com/story/opinion-apples-air-tags-are-a-gift-to-stalkers/> (last visited Apr 20, 2022).

Consumer privacy expectations have been at the heart of criticisms of public health solutions that incorporate BLE proximity tracking. Though BLE contact tracing by Google and Apple was a much-hyped solution at the start of the pandemic,⁶⁴² it was fraught with technical problems.⁶⁴³ This BLE implementation remains on millions of smartphones, opening the door to future proximity tracking of consumers in the lower levels of the Android and iOS operating systems.

During times of crisis, public health concerns have a history of superceding consumer privacy and consent. In 2021, for example, a contact-tracing app was installed silently and without consent on the smartphones of Massachusetts residents.⁶⁴⁴ There are numerous examples of COVID-19 tracking “gone awry” internationally,⁶⁴⁵ and South Korea’s approach, in particular, reveals tangible privacy harms.⁶⁴⁶ As such, software and hardware deployed in the name of public health or better hygiene should never be beyond scrutiny for its deliterious impact on the lives of real individuals.

Conclusion

Retailers are increasingly deploying technology to track the location and proximity of shoppers in an effort to gain insight on consumers and their behavior. Though the push to unite the brick-and-mortar food retail space with the digital shopping cart has been underway for years, pandemic strategies are now accelerating this shift. Changes continue to be deployed with little transparency or oversight, and industry practices are far beyond the scope of current U.S. policy, regulatory, and legal structures. Perhaps worse, the sheer invasiveness of emerging methods to surveil shoppers is beyond the perception of both the common consumer and policymaker.

Big Data methods magnify this pernicious situation, building boundless and persistent profiles of U.S. consumers. This data is shared widely between data brokers, large and small, offering a palpable example of surveillance capitalism at scale. As this information sits in data warehouses its toxicity increases, vulnerable to breaches by outside attackers and insider threats alike.

642 Chaim Gartenberg, *Here’s how Apple and Google will track the coronavirus with Bluetooth*, THE VERGE (2020), <https://www.theverge.com/2020/4/14/21220644/apple-googles-bluetooth-low-energy-le-coronavirus-tracking-contact-tracing> (last visited Apr 21, 2022).

643 Sam Biddle, *The Problem With Using Bluetooth for Coronavirus Contact Tracing*, THE INTERCEPT, <https://theintercept.com/2020/05/05/coronavirus-bluetooth-contact-tracing/> (last visited Apr 19, 2022).

644 Ron Amadeo, *Even creepier COVID tracking: Google silently pushed app to users’ phones [Updated]*, ARS TECHNICA (2021), <https://arstechnica.com/gadgets/2021/06/even-creepier-covid-tracking-google-silently-pushed-app-to-users-phones/> (last visited Apr 19, 2022).

645 Will Privacy Survive COVID-19?, THE PRIVACY ISSUE, <https://theprivacyissue.com/government-surveillance/will-privacy-survive-covid-19-coronavirus> (last visited Apr 16, 2022).

646 Nemo Kim, *“More scary than coronavirus”: South Korea’s health alerts expose private lives*, THE GUARDIAN, March 6, 2020, <https://www.theguardian.com/world/2020/mar/06/more-scary-than-coronavirus-south-koreas-health-alerts-expose-private-lives> (last visited Apr 16, 2022).

As we have discussed, tracking technology once limited to science fiction is now a reality in our retail spaces. The majority of these beacon, geofencing, and proximity-tracking systems have a notable point of failure – the smartphone in each shopper's pocket. A firm demand for strong privacy and security controls at the smartphone endpoints is paramount to avoid negative effects on the U.S. population. This does not reduce the tangible harms posed by biometric technology such as facial recognition, whose history of abuse proves bans on deployments are the most viable and impactful solution. Such bans have been effective against facial recognition at the state and municipal levels, but federal legislation is still absent.⁶⁴⁷

These harmful effects could occur slowly, over time, or be quickly exacerbated by cyber attacks. We are approaching the technological tipping points outlined by the World Economic Forum⁶⁴⁸ at a quicker pace than projected, and this has been a process accelerated by the pandemic and other global crises. Without privacy over our movements and choices, even in a casual run to the store for a gallon of milk, the liberty, autonomy, and security of the U.S. population is in the balance.

647 Fight for the Future, *This is why we need legislation that bans facial recognition: LAPD Officers exposed using Clearview without permission*, FIGHT FOR THE FUTURE, <https://www.fightforthefuture.org/news/2020-11-18-this-is-why-we-need-legislation-that-bans-facial> (last visited Apr 21, 2022).

648 Deep Shift: Technology Tipping Points and Societal Impact, WORLD ECONOMIC FORUM, <https://www.weforum.org/reports/deep-shift-technology-tipping-points-and-societal-impact/> (last visited Apr 22, 2022).

SATURDAY MARCH 12th 2022

REFORMING AMERICA'S FOOD RETAIL MARKETS



Sponsored by the Thurman Arnold Project, the Information Society Project, and the Yale Sustainable Food Program

Panel 6: Alternative Systems

Regional Food Hubs: Adding flexibility and resiliency to the food supply system

Ellen Walsh-Rosmann & J.D. Scholten

Consolidation, government policies, consumer demands, and technological advancements in agriculture have all drastically changed farming in Iowa from what it looked like generations ago. The intent of this paper is to show that by investing in and creating the infrastructure for long term, sustainable regional food hubs, Iowa can lead by example in bringing back flexibility and resiliency to the food supply system.

When the Covid pandemic hit the United States in March of 2020, the general public began to think more and more about where their food comes from. Some of the largest outbreaks early in the pandemic started in major food processing plants, mostly concentrated in meat. Employees were not showing up for work because of illness or unsafe working conditions. This caused production lines to slow or even stop altogether, which caused shortages and price hikes at the grocery stores. Families, restaurants, grocery stores and others in the food system immediately had to find new ways to get food.

The American food system was made for efficiency and it works tremendously well. What the system does not do well is adapt, a problem made evident even before the pandemic. On August 9, 2019, a major fire occurred at a Tyson beef processing plant in Holcomb, Kansas. One plant fire may not seem to be too disruptive, but the scale and lack of competition proved otherwise. The Holcomb plant is one of seven beef processing plants in the U.S. that can harvest 6,000 cattle per day. Only Tyson's Dakota City, Nebraska plant is larger at 7,000 head per day.⁶⁴⁹ The Holcomb plant accounted for approximately five to six percent of the nation's beef processing capacity,⁶⁵⁰ which caused nearly the entire U.S. cattle market to be disrupted.

How did the American food system get to this point?

There are several events that shaped American agriculture for the majority of the 20th century. In 1921, the Packers and Stockyard Act became law with the goal that it would protect farmers from large monopolistic corporations. As part of the New Deal, which helped farmers who suffered through the Great Depression, the Agricultural Adjustment Act (AAA) was passed in May of 1933 to help protect American farmers from price declines due to overproduction.⁶⁵¹

⁶⁴⁹ <https://www.meatpoultry.com/articles/22036-the-smoldering-impact-of-tyson-holcomb-fire#:~:text=On%20Aug.%209%2C%20Tyson%20Foods%E2%80%99%20Holcomb%2C%20Kansas%2C%20beef,of%20action%20for%20the%20rest%20of%20the%20year.>

⁶⁵⁰ <https://www.ams.usda.gov/sites/default/files/media/CattleandBeefPriceMarginReport.pdf>

⁶⁵¹ <https://historylearning.com/modern-world-history/america-1918/new-deal-farmers/>

Between the 1950s and 1970s the country saw the number of farms decline by half before leveling off. More farms were consolidated or sold during this period than in any other period in U.S. history.⁶⁵² This was due largely to technological advancement and specialization.

Things changed in 1972 when Secretary of Agriculture Earl Butz orchestrated a massive grain sale to the Soviet Union. As a result, the grain reserves were depleted and Butz went on to famously tell farmers to “plant fence row to fence row.” This was the beginning of “get big or get out” agriculture.⁶⁵³

When this philosophy formed the basis for American policies, corporate influence is expanded throughout the U.S. food supply system.⁶⁵⁴ Decades of mergers and consolidation have left agriculture heavily concentrated. Today, in almost every sector of agriculture just a handful of corporations control the market. On the input side, the U.S. went from about 70 pesticide companies during the 1960s to just 4 today.⁶⁵⁵ In meat production, just four firms control anywhere from 55-85% of the market for beef, chicken and hog products.⁶⁵⁶

Farms have experienced a great transition as well. Farms were diverse at the turn of the 20th century; 98% of farms had chickens, 82% grew grain, 80% had at least one milk cow and 80% had pigs. By 1992, that had drastically changed; 4% of farms had chickens, 8% had milk cows, 10% had pigs, and only 25% were growing corn. Of the 17 major farm commodities, the average farm in 1900 produced five of them; in 1992, the average farm produced fewer than two⁶⁵⁷. The following graphic demonstrates just how much diversity has been lost on Iowa farms in a relatively short period of time.⁶⁵⁸

⁶⁵² https://livinghistoryfarm.org/farminginthe50s/life_11.html

⁶⁵³ <https://grist.org/article/the-but-z-stops-here/>

⁶⁵⁴ https://www.epi.org/publication/briefingpapers_exportdeath/

⁶⁵⁵ https://www.usitc.gov/publications/332/executive_briefings/ag_ma_ebot_final.pdf

⁶⁵⁶ <https://www.whitehouse.gov/briefing-room/blog/2021/09/08/addressing-concentration-in-the-meat-processing-industry-to-lower-food-prices-for-american-families/>

⁶⁵⁷ https://livinghistoryfarm.org/farminginthe50s/life_11.html

⁶⁵⁸ <https://www.leopold.iastate.edu/files/pubs-and-papers/2002-09-exploring-community-food-systems-johnson-county.pdf>

Crops and livestock produced for sale on at least 1% of Iowa farms

1920	1935	1945	1954	1964	1978	1987	1997
Horses	Cattle	Cattle	Corn	Corn	Corn	Corn	Corn
Cattle	Horses	Chickens	Cattle	Cattle	Soybeans	Soybeans	Soybeans
Chickens	Chickens	Corn	Oats	Hogs	Cattle	Cattle	Hay
Corn	Corn	Horses	Chickens	Hay	Hay	Hay	Cattle
Hogs	Hogs	Hogs	Hogs	Soybeans	Hogs	Hogs	Hogs
Apples	Hay	Hay	Hay	Oats	Oats	Oats	Oats
Hay	Potatoes	Oats	Horses	Chickens	Horses	Horses	Horses
Oats	Apples	Apples	Soybeans	Horses	Chickens	Sheep	Sheep
Potatoes	Oats	Soybeans	Potatoes	Sheep	Sheep	Chickens	Chickens
Cherries	Cherries	Grapes	Sheep	Potatoes	Wheat	Ducks	Goats
Wheat	Grapes	Potatoes	Ducks	Wheat	Goats	Goats	
Plums	Plums	Cherries	Apples	Sorghum	Ducks	Wheat	
Grapes	Sheep	Peaches	Cherries	Red Clover			
Ducks	Peaches	Sheep	Peaches	Apples			
Geese	Pears	Plums	Goats	Ducks			
Strawberries	Mules	Pears	Grapes	Goats			
Pears	Ducks	Red Clover	Pears	Geese			
Mules	Wheat	Mules	Plums				
Sheep	Geese	Strawberries	Wheat				
Timothy	Sorghum	Ducks	Red clover				
Peaches	Barley	Wheat	Geese				
Bees	Red Clover	Timothy	Popcom				
Barley	Strawberries	Geese	Timothy				
Raspberry	Soybeans	Rye	Sweet potato				
Turkeys	Raspberry	Popcom	Sweet corn				
Watermelon	Bees	Sweet Corn	Turkeys				
Sorghum	Timothy	Raspberry					
Gooseberry	Turkeys	Bees					
Sweet Corn	Rye	Sorghum					
Apricots	Popcom						
Tomatoes	Sweet Corn						
Cabbage	Sweet Clover						
Popcom	Goats						
Currants							

Grown on more than 50% of Iowa farms

Grown on 15-49% of Iowa farms

Grown on less than 15% of Iowa farms

Source: Michael Carolan, Sociology Department, Iowa State University. Data from U.S. Census of Agriculture

Iowa in today's food system

Iowa is clearly an agricultural state with 88% of the land devoted to growing crops.⁶⁵⁹ However, 90% of the food Iowans eat is imported,⁶⁶⁰ as the majority of Iowa agriculture is now devoted to feeding livestock or ethanol fuel.

The apple is one example of how food has changed in Iowa over the last 150 years. In 1870, nearly every apple consumed in Iowa was grown in the state. In the early part of the 20th century, Iowa was 6th in the nation in apple production. Then, in 1940, a severe freeze destroyed the apple industry, and over time most apple orchards were abandoned or turned into fields for row crops. As of 2004, Iowa ranked 31st out of the 35 states that produce apples commercially.

Today, one can go to a grocery store in Iowa and easily find an apple from New Zealand, over 8,000 miles away. As of a decade ago, 60% of the apple juice consumed in the U.S. came from China.⁶⁶¹ These phenomena exist because of policy and market choices that have been made. The 1990s showed us how sensitive the markets were when Chinese apples flooded the market and it

⁶⁵⁹ <https://www.iowapolicyproject.org/2007docs/070206-LocalFood.pdf>

⁶⁶⁰ <https://iowafoodcoalition.org/>

⁶⁶¹ <https://www.csmonitor.com/World/Global-Issues/2013/0721/Follow-your-labels-American-apple-juice-is-a-product-of-China>

no longer became cost effective to even produce apple juice.⁶⁶² These global apples can take up to eight months to reach the consumer, traveling thousands of miles as they go from tree to truck to warehouse to shipping to warehouse to storage to store.⁶⁶³

What Should We Do?

Over the last few decades, demand has increased for local or regional food. Direct-to-consumer sales of regional food have risen 225%, from \$0.4 billion in 1992 to \$1.3 billion in 2012.⁶⁶⁴ As the general industry has consolidated and pushed towards efficiency, these local markets have existed outside of the mainstream market.

Infrastructure to create regional food markets could be invested in for pennies on the dollar of what the federal government spends on the current food system. In 2020, farming subsidies in Iowa totaled \$926,561,000.⁶⁶⁵ An investment of just one cent per dollar currently spent on existing farm subsidies would be a \$9 billion investment in a regional food system infrastructure in Iowa. Currently, there is zero to very little investment from state and federal governments.

Additionally, out of existing markets, the food hub is one that holds the most promise in efficiency and fairness to both the producer and consumer. The USDA describes a food hub as “a centrally located facility with a business management structure facilitating the aggregation, storage, processing, distribution, and/or marketing of locally/regionally produced food products.” By actively coordinating these activities along the value chain, food hubs are providing wider access to institutional and retail markets for small to mid-sized producers, and increasing access to fresh, healthy food for consumers, including in underserved areas and food deserts.”⁶⁶⁶

Most food hubs are created from both a mission-oriented and business standpoint, which are both important for guiding direction and growth. Food hubs may choose to work with small farms that only produce on a certain number of acres or with a certain demographic or with those following specific growing practices. Food hubs must collaborate when it comes to their infrastructure and marketing strength. They must lean on partnerships to help with technical and educational support for producers, employees, and customers. This support helps with producer development, drive consumer demand, and improve infrastructure that meets food safety and

⁶⁶² <https://www.nytimes.com/2007/06/25/business/worldbusiness/25iht-apples.1.6312540.html>

⁶⁶³ <https://www.leopold.iastate.edu/files/pubs-and-papers/2002-09-exploring-community-food-systems-johnson-county.pdf>

⁶⁶⁴ <https://www.stlouisfed.org/on-the-economy/2017/december/economic-impact-locally-produced-food#:~:text=The%20demand%20for%20regional%20food,to%20%241.3%20billion%20in%202012>

⁶⁶⁵ https://farm.ewg.org/top_recips.php?fips=19000&progcode=totalfarm&yr=2020®ionname=Iowa

⁶⁶⁶ <https://www.rd.usda.gov/files/sr73.pdf>

efficiency benchmarks. Food hubs thrive with support from extension, public health agencies, non-profits, state services, and national programs.

Regional food systems would be beneficial in three important ways: 1) decentralizing the food system, 2) rural economic development, and 3) combating climate change.

Decentralizing the Food System

Decentralizing our food system is a matter of national security. Again, the COVID pandemic put a spotlight on the concentration of our food system beginning in 2020 by demonstrating how a single event can drastically influence an entire market. The fragility of our global supply chain was also exposed when the Holcomb, Kansas Tyson plant caught fire, when JBS was cyber attacked,⁶⁶⁷ when a Mexican cartel threatened a safety inspector at a Mexican avocado plant,⁶⁶⁸ and in many more instances.

Rural Economic Development

Major economic differences between a regional food system and the dominating wholesale system are job creation and money remaining in local communities. It is estimated that nearly 32 jobs are created for every \$1 million in revenue generated by produce farms involved in some form of direct marketing, compared to only 10.5 jobs for those involved in wholesale channels exclusively.⁶⁶⁹ Additionally, the average food hub procures products from 78 different producers and suppliers.⁶⁷⁰

Food hubs are resilient and can adapt quickly to economic pressures. Most food hubs transitioned within days at the beginning of the pandemic. When customer segments flipped overnight, food hubs successfully pivoted to meet the demand brought about by a larger proportion of the public forced to stay home. While the current food system is large, standardized and slow to adapt, food hubs remain adaptable and well suited to respond to the unknowns within the market.

A regional food system holds great promise for an increased number of small farms. More small farms means a more populated countryside and more people attending rural churches and schools. In rural agricultural communities the need for an increase in farms has never been stronger. The decline seen over the last several decades has been devastating to rural

⁶⁶⁷ <https://www.cnn.com/2021/06/09/business/jbs-cyberattack-11-million/index.html>

⁶⁶⁸ <https://abcnews.go.com/International/wireStory/us-suspends-mexican-avocado-imports-eve-super-bowl-82863030>

⁶⁶⁹ ood#:~:text=The%20demand%20for%20regional%20food,to%20%241.3%20billion%20in%202012
⁶⁷⁰

<https://www.canr.msu.edu/foodsystems/uploads/resources/2017%20national%20food%20hub%20survey%20finding.s.pdf>

communities, and the best way to turn this around is to re-cement the agricultural base that these communities thrived on in the past. Communities are strong and vibrant when there is support for the local economy, and those positive impacts carry over into schools and other institutions.

The potential for agriculture to truly support the state exists outside of the false narrative provided by large agribusinesses that puts all hope in a handful of commodities. Dave Swenson, an Iowa State University economist, says, “If Iowans ate the recommended five daily servings of fruits & vegetables, and Iowa farmers supplied that produce three months of the year, this would add \$302.4 million and 4,094 jobs to Iowa’s economy.”⁶⁷¹

Combating Climate Change

In the state of Iowa alone, a major climate related event has occurred in each of the past three years. In 2019, record flooding of the Missouri River created climate refugees in Southwest Iowa. In 2020, a severe derecho inflicted over \$7.5 billion in damages, the costliest thunderstorm in U.S. history. In 2021, destructive tornadoes struck in December, a very rare occurrence. Agriculture’s role in carbon dioxide and other greenhouse gas emissions is widely believed to be substantially fueling climate change and must be addressed. According to the Environmental Protection Agency, agriculture produces 10% of all greenhouse gas emissions.⁶⁷²

Local food production has a lower carbon footprint because of the methods that are typically used. Most local growers use sustainable practices such as employing multi cropping systems and replacing inputs with low to zero emission tools and manual labor.

The transportation sector is another large carbon emitter. As of 2017, 39% of fruits, 12% of vegetables, and 70% of fish and shellfish consumed in the U.S. were imported. On average, the typical American meal contains ingredients from at least five other countries.⁶⁷³ A regional food system reduces the carbon footprint caused by food transportation, especially when the efficiency of aggregation provided by food hubs is included.

How Do We Make These Changes?

Antitrust

U.S. agriculture is at a point where multinational corporations have an incredible amount of influence on government policy. Enforcing our antitrust laws would create more opportunities for healthy competition in agricultural markets. More competition leads to better quality, more innovation, and more competitive prices. The three objectives of decentralizing our food system,

⁶⁷¹ <https://www.newswise.com/articles/healthy-eating-has-potential-for-economic-payoff>

⁶⁷² <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions>

⁶⁷³ <https://www.iowapolicyproject.org/2007docs/070206-LocalFood.pdf>

developing the rural economy, and combating climate change are virtually unachievable if antitrust laws are not enforced.

Building infrastructure

Infrastructure needs for regional food systems are broad, from delivery vehicles to freezer, cooler, and warehouse spaces. Growth in this area is often financially risky for food hubs, as sales increase incrementally while infrastructure costs come in bursts. Logistical infrastructure for storage, distribution and aggregation is also greatly needed to truly achieve an efficient food system, with use of state-owned logistics companies and organizations as a means of achieving that goal. This may require creativity, such as food hubs piggybacking onto state trucks for the prison industry or liquor distribution. Unlike on both the east and west coast, Iowa does not have small LTL trucks running all over the state and may need these kinds of collaborations. Having the state as the entity that invests in transportation logistics for food hubs would increase impact. Cohesive state branding of local products would legitimize those products as a competitive force within the food system. Funding by the Dairy Council, Beef Producers, Egg Producers and other commodity groups through check off dollars would be ideal and would empower the regional food system as one that is truly supported by all aspects of business and government.

Investment in incentives, coordination, and processing are critical along with logistics. Incentivization of projects that add value to locally grown raw produce, grains, or protein and making those products accessible to institutions such as schools and hospitals is needed and would be a means of large-scale support for local producers. More local food coordinators that serve a specific population area or region would help with cooperation between these entities. And though food hubs have become a relevant factor in tackling current supply chain issues, institutions mentioned above, many of which are short staffed, are not yet equipped to support their own processing needs.

In order to succeed and continue to build local food infrastructure, funding is needed from multiple sectors, most notably local and state governments, businesses, private monies, and grants. Public funding for public institutions to purchase local foods is perhaps the most basic way for regional food system development to occur. Ideally, direct investment in food hubs would be prioritized over grants. When food hubs have to use their already limited resources to track down and apply for grants, they are put at a disadvantage against the current food system that already receives so much direct subsidization.

Education and research

The availability of educational resources for every stakeholder in the food system is crucial. More emphasis on research and development of varieties of produce items instead of the current desperate attempt to find as many uses as possible for commodities such as corn would help food companies become more creative. For consumers, education on the seasonality of products and basic information on the products grown in their region would provide similar outcomes. For producers, education and infrastructure that allow for year-round production also need to be explored.

There is great potential for a much stronger partnership between farmers and schools. Steady financial support needs to be provided to schools for purchasing local food. Schools should also be provided technical assistance on local food procurement and menu planning with incentives for those that have completed a local food procurement plan with a coach. Investing in the existing local food procurement coaching program would address the limited time food hub staff have to do all of the outreach and planning with schools and would stimulate the development of additional local food advocates and partners. Institutions and schools should be encouraged to incorporate a geographic preference in their bid solicitation for food procurement. Long-term contracts, like Chicago's Good Food Purchasing Initiative,⁶⁷⁴ that public institutions have with food service distributors need to be addressed. Purchasing requirements need to have more flexibility when purchasing locally.

A higher per meal reimbursement rate for local foods served in schools would greatly help institutionalize the value of local food and would help a regional food system compete with imported products.

Education about the improved health outcomes of local food choices should be commonplace and financially supported by all levels of government. The potential benefits toward tackling food insecurity should be explored. And if universities were to engage in feasibility studies on the economic and health advantages of local food to residents of their state, more support would likely come from consumers, communities, and statewide government agencies. Beyond health benefits, the mindset of community members and consumers on what it means to truly support local needs to be reinforced.

Farm Bill Reform

The original farm bill from 1933 that was part of the New Deal was intended to provide adequate food for the country, ensure fair prices for farmers and consumers, and protect the land. In the latest farm bill, 77% of subsidy dollars have gone to just 10% of all recipients, and the top 1% of subsidy recipients received 26% of all payments. Currently, six crops – corn, rice, wheat, soy, cotton and peanuts – receive 94% of all subsidies.⁶⁷⁵ These Title One subsidies cause overproduction of certain crops and disincentivize diversity. The complicated crop insurance system which now convolutedly acts as the subsidization process needs an overhaul so it is more friendly to local food production.

How to Deal with Cost

The cost of local food is often seen as a barrier to full entry into the market. However, these food costs are the true costs of food production as compared to those of the heavily subsidized

⁶⁷⁴ <https://www.chicagofoodpolicy.com/procurement>

⁶⁷⁵ <https://sgp.fas.org/crs/misc/R44914.pdf>

current system. But when price is considered, the long-term externalized costs of the often unhealthy processed foods that dominate the current food system need to be taken into account.

Food hubs have the potential to provide the economies of scale that bring large volume sales comparable to those controlled by the current food system while not sacrificing the value system held by its producers. Additionally, creating market conditions where diverse markets are available for producers helps small and medium sized producers manage risk. A food hub makes it easier for producers to scale up their operation similarly by mitigating risk and increasing market viability.

Better analysis of supply and demand would improve efficiency and bring down costs. When consumers and producers are on the same page before the growing season begins, the potential for both scarcity and overproduction is lessened.

Conclusion

Ideally, we should strive for a state-by-state or region-by-region system that allows that region to support farmers and customers and build sustainable infrastructure for local food security. Processing and season extension should be prioritized over striving to export food to other regions and countries. Currently, success is largely measured in food exports, which is contrary to what is most sustainable economically and environmentally. A regionally based food system has a long way to go to replace the current food system, and perhaps that should not be the end goal. However, a regional food system would greatly add value to the current American food system. Iowa, a place well-known for agriculture, is the perfect place to implement a regional food system through what would be minimal investment in relation to that provided to the current system. Climate change, rural economies, and fairness within the food system would all be positively affected. Flexibility and resiliency are what the food system needs and can best be provided through a system that prioritizes substantial investment in local and regional.

Public Markets, Antitrust, & Food Systems

Robert LaValva

Introduction

*Democracy is threatened by large concentrations of wealth. People knew this and understood this at the turn of the last century. And that's why they wrote the Sherman Antitrust Act, and all the other antitrust legislations. They were written not to protect consumers from price-fixing, although that's all we hear about anymore. They were written to protect the republic against concentrations of power. It was totally understood that if corporations got so big they could push the government around and distort everything.*⁶⁷⁶

--Michael Pollan

The subject of this conference is Antitrust. By Antitrust, we mean the *set of laws* designed to prevent excessive concentrations of wealth and power. The conference speakers have deep knowledge of industry concentration throughout our food system, and how the laws of Antitrust can be applied to break up monopolies and prevent unfair competition. My personal experience has more to do with the other side of that equation: what if the Antitrust laws were fully enforced and achieved their aims, so that competition overruled concentration? What if Antitrust were as well a *way of thinking*, one that leads to different modes of organizing commerce?

I believe that public markets offer a compelling glimpse of such a world. Comprised of multiple small businesses that operate in a competitive, regulated environment, public markets are an embodiment of Antitrust. Just as importantly, public markets have always been more than places where people buy and sell. They are a unique form of public space that fosters business incubation and economic development, provides space for social interaction, and restores trust in governance. Public markets can function like a mirror image of Antitrust, aiming for the same goals by building up rather than tearing down. While public markets may seem an unlikely bulwark against concentrated corporate power, we should think of them as seeds that store the DNA of new economies. Public markets provide one of many needed footholds on our path to building healthier and more sustainable food systems.

Essential Qualities of Public Markets

Today, the term *market* is used with significant abandon to describe a wide variety of retail food venues, ranging from corner grocery stores to food courts, street fairs, supermarkets, hypermarkets, and even e-commerce.⁶⁷⁷ But our concern is *public markets*. What is a public market? There is no universal or legal definition of this term, and public markets themselves

⁶⁷⁶ Real Organic Project Symposium February 6, 2022.

⁶⁷⁷ <https://en.wikipedia.org/wiki/Marketplace>

have continuously changed and evolved to meet the needs of place and time. The Project for Public Spaces, an advocacy organization with decades of experience studying public markets, states that: 1) public markets have public goals; 2) public markets are located in a public space that attracts a wide range of people; and 3) public market vendors are independently owned businesses, and not corporate chains or franchises.⁶⁷⁸ For the purposes of this conversation, I would add that public markets are primarily sources of fresh ingredients and foods to take home and cook with, rather than prepared foods to eat on the premises; and ideally, they have strong connections to regional farms and food production. The most compelling public markets often combine wholesale and retail functions.

Public markets also have *essential qualities* that distinguish them as places of commerce including:

Engagement
Order
Democracy

Together, these and other attributes make public markets into transformative institutions and fertile ground for building food systems aligned with the goals of Antitrust.

Engagement: *Precinct and Palaver*

Public markets are communities by definition: communities of vendors, the businesses that serve them, their customers, the neighborhood around them, the travelers who visit them. The marketplace itself is a form of public space whose identity both reflects and shapes the communities it holds. Long before the invention of the urban park, public markets served as the gathering site in every town and city. People assembled in public markets to shop for food and other goods, but also to converse, catch up, debate, conduct business, and generally hang out in a relaxed and unguarded way. Public markets have functioned as a middle ground or “third space” that is cultural as well as commercial, spiritual but not sacred, neither home nor work.

In ancient Greece the marketplace - the *agorà* - was delineated from the surrounding urban fabric by the *horoi*, squared marble pillars set around its perimeter and inscribed with the words *I am the boundary of the agorà*. The *horoi* served as a warning to convicted criminals, who were not allowed to enter this civic site; they also prevented encroachment from real estate development, something that threatens public markets to this day. Within the confines of the precinct, market-goers would experience *agorazein*, a unique feeling that was simultaneously excited, insouciant, and democratic:⁶⁷⁹

⁶⁷⁸ PPS, *Public Markets as a Vehicle for Social Integration and Upward Mobility* (New York: Ford Foundation, 2003), 5-6.

⁶⁷⁹ Jacob Burckhardt, *The Greeks and Greek Civilization* (New York: St. Martin's Griffin 1999), 52.

*The Agora was above all a place for palaver; and there is probably no urban marketplace where the interchange of news and opinions did not, at least in the past, play almost as important a part as the interchange of goods... Not indeed until the automatism and the impersonality of the supermarket were introduced...were the functions of the market as a center for personal transactions and social entertainment entirely lost.*⁶⁸⁰

A defining feature of public markets is in fact their interactive nature: at a market booth or stall, the business owner is on one side of a counter, the customer on the other. The buyer requests an item; the seller tells the customer what they owe; a conversation, however brief, typically ensues. This engagement is repeated as customers make their rounds and purchase items from separate market stalls, or upon encountering friends and neighbors. The sound of transactions, conversations, and arguments rises through the market in a steady, calming hum.

The industrial food system instead moves closer to requiring no engagement, no questioning, no talking. Even as food sales move increasingly to the Internet, in brick-and-mortar establishments we now have self-checkout aisles and deli counters whose offerings are pre-cut and pre-packaged and where special orders are placed via app or touch screens, all of which diminishes or eliminates the need for human interaction. It stands to reason that Amazon, born of the virtual transaction, is now perfecting physical stores that detect what we pull from the shelves and quietly deduct payment from our phones. If “democracy dies in darkness,” what happens when the marketplace goes silent?

Order: *Ubi Est Multitudo*

Through history, public markets have served as economic engines to expand trade, foster innovation, spur entrepreneurship, and create employment. These processes don’t arise from a vacuum. Public markets are like mechanisms that run smoothly when calibrated by rules and regulations, in accordance with the Roman dictum *ubi est multitudo ibi esse rector* - “where there is a crowd there is governance.” The goal of regulations is to ensure fair trade, equal opportunity for all vendors, and trust by customers. Like all human systems, regulations are not always perfect, but without them markets would not function. More importantly, the human scale of public markets makes flaws easier to access and to remedy.

In medieval Europe, for example, markets and fairs could only be held if granted by the Crown or the Church. They were spaced apart both geographically and temporally to prevent excessive competition, and had to take place on the specified dates and locations; it was not allowed to extend them if business was going well, or cut them short if traffic was slow. Vendors were grouped according to the goods they carried, whether cattle, poultry, ale, rope, hides, wool, salt, and myriad other products of the time, and were sometimes limited to selling on certain dates. At fairs, order was maintained through the Courts of Pie Powder, so named for the “pieds poudrée” or dusty feet of the fairgoers. These courts dealt only with whatever petty crimes might take

⁶⁸⁰ Lewis Mumford, *The City in History* (New York: Harcourt Brace Jovanovich, 1961), 149.

place at the fair, so that matters could be resolved expeditiously and before its participants headed back for home.⁶⁸¹

Market laws have long been aimed at counteracting fraud. Local officials calibrated and certified the weights and measures used by market vendors. They licensed the butchers and conducted frequent inspections of the shambles (covered sheds where meat was cut) to prevent the sale of “blown” or spoiled flesh. They were constantly on guard against the three related crimes of *engrossing, forestalling, and regrating*, whereby food was stockpiled or traded outside the market precinct or the official hours in order to inflate prices at the expense of the consumer. The prevalence of market rules in ancient, medieval, and modern societies reveals that the human tendency to lie and cheat is constant. What wavers is our willingness to accept this fact.

*The history of public markets in nineteenth-century America reminds us that for a long time we had a mechanism for monitoring the moral economy at the local level - where familiar people, in a familiar place, could see, hear, touch, taste, and smell whether government was doing its job.*⁶⁸²

That regulations existed does not imply that fraud never took place at public markets, or that order and clarity always reigned. But it does mean that rules and their enforcement were anchored by the immediacy of a public setting. An illustrated chronicle from 1831 depicts the Marketmaster of York, Pennsylvania seizing “lightweight” butter from a cheating farmer in full view of a shocked and angry crowd.⁶⁸³ The buyer, the seller, and the regulator are connected directly with each other. The crime is rendered comprehensible, and stopped.

Fraud conducted by the industrial food sector is too opaque for the vast majority of consumers to comprehend or even see. And so today a multinational dairy corporation labels its milk as “USDA Organic” even though it is produced in violation of the national organic standards. Supersized, confined dairy operations that would never receive USDA Organic certification in the northeast are shifted to Texas, Colorado, and other states where enforcement is more lax due to intense pressure by the dairy industry and its lobbyists.⁶⁸⁴ As a result, family-owned organic dairies in Vermont, Maine, and nearby states have recently lost their contracts to supply genuine organic milk, and many may be forced to close permanently. Moreover, the parent company remains listed as a certified B-Corp. We have no Marketmaster to seize and confiscate the fake organic butter, and the crowd has nowhere to direct its anger, if it even remembers to have any.

⁶⁸¹ Borthwick Institute of Historical Research, *The Medieval Fairs and Markets of York* (York: St Anthony’s Press, 1961), 4-19.

⁶⁸² Helen Tangires, *Public Markets and Civic Culture in 19th Century America* (Baltimore: John Hopkins Press, 2003), xx.

⁶⁸³ Tangires, 10.

⁶⁸⁴ https://www.washingtonpost.com/business/economy/why-your-organic-milk-may-not-be-organic/2017/05/01/708ce5bc-ed76-11e6-9662-6eedf1627882_story.html

Democracy: *Objects of City Pride*

Maps and plans from early America always show the location of the public markets, and list them along with churches, forts, and government buildings important to the city's culture and identity. The public market was a town's most valuable asset, functioning as a magnet that attracted a wide range of other businesses around it and helped jump-start development.⁶⁸⁵

Larger towns had multiple marketplaces, sparking similar growth on a neighborhood scale. By the early nineteenth century, cities like New York, Washington, and Boston were erecting lofty market halls built of brick or stone, as solid and imposing as banks. Thomas DeVoe, a prominent New York butcher and superintendent of the city's public markets, stated:

*A Public Market is one where all who choose to buy may have free access; and which is for the Public Health, and subject to public control. The policy of maintaining them is a matter of great public concern. They are a convenient "mart" for the production of the surrounding country. They furnish luxuries to the wealthy, the first necessities of life to the laboring classes, and a rich variety suitable to the tastes of all. They are objects of City pride.*⁶⁸⁶

Thinking in terms of urban systems, DeVoe's definition of the public market could be restated with twenty-first century aspirations as follows: Public markets are welcoming to all; shopping and eating out of public markets promotes physical, emotional, and spiritual health; public markets are a form of civic infrastructure like schools, firehouses, and transit systems; public markets foster and sustain regional economies and access to fresh, healthy, local food; public markets offer goods at multiple price points; they are objects of city pride.

The nineteenth century public market was part of a food system where both the wealthy and the poor did their provisioning under the same roof and from the same vendors. Market butchers in particular perceived themselves as a fraternity whose mission included selling meat at all price points, declared by the banners they carried at parades: *To All We Divide a Part*.⁶⁸⁷ The public market was also one of few places in the city where people of all races congregated freely, as recorded in prints and chronicles from that era. This democratic character of public markets is deeply rooted, and remains evident today.

As if in mockery of the democratic market halls of the nineteenth century, the industrial food system has created the "dollar store." Fast growing as the only source of food for many lower income Americans, while generally avoided by those of greater means, dollar stores typically offer no fresh ingredients and only a restricted selection of highly processed foods repackaged as "single servings" whose affordability belies a high unit pricing. Ultimately mechanisms to extract profits from society's poorest consumers, dollar stores also outcompete and shut down nearby grocery stores, decreasing the availability of healthy options while diminishing local employment opportunities. As with most convenience stores or discount groceries, their interior

⁶⁸⁵ Tangires p. 47

⁶⁸⁶ From the archives of Thomas F. DeVoe at the New York Historical Society

⁶⁸⁷ Tangires, p. 68

environment feels impoverished, with dim or garish lighting, cheap shelves, and shabby maintenance. Hardly the “objects of pride” described by DeVoe, dollar stores are now the target of city ordinances to limit their proliferation.⁶⁸⁸

Failure and Regeneration

This is a good moment to note that public markets can also fail, in all the ways that human efforts generally do. Vendors encroach on their neighbors, fight battles, malign each other. Clerks or managers or supervisors grow lax, corrupt, or even criminal. Buildings fall into disrepair. Customers are cheated, tourists are swindled. Markets stop attracting customers, fall out of fashion, struggle to survive, and are eventually abandoned or closed down.

A case in point is New York City’s Fulton Fish Market. This public institution, which has always operated in city-owned buildings, began in the 1820’s as a “seafood only” section of the larger Fulton Market, at that time the city’s premier retail food emporium. Over time the fish market turned increasingly towards the wholesale trade, and grew into one of the world’s largest seafood distribution centers.⁶⁸⁹ Since its beginnings, the market had harbored criminal activity, ranging from “caveat emptor” swindling to more serious racketeering by mobsters, who extorted fees from suppliers, truckers, peddlers, and dealers and could turn violent if demands were not met.⁶⁹⁰ Organized crime gained its strongest foothold beginning in the 1960s, when the city’s Department of Markets, which had provided at least some degree of oversight, weakened and was eventually dissolved. It took Rudolph Giuliani’s prosecutorial zeal, first as Manhattan DA and then as New York City’s Mayor, to finally end the mob’s grip on the fish market. Part of his strategy was to mandate the market be moved away from its long-held home, an iconic waterfront location in the shadow of the Brooklyn Bridge.

Understanding these inherent weaknesses of public markets confirms the institution’s tenacity. Markets do falter, but they also regenerate. They can close, or even disappear entirely, only to reemerge generations later. Between the Agora of ancient Athens and the markets of medieval Europe span almost 2,000 years; and between medieval Europe and 19th century New York another six centuries. These eras are as different from each other as they are to our time, but public markets have been relevant to all of them, as they remain to ours. Two current markets in New York serve as an example: the Greenmarket system of farmers markets, a new concept when it was launched in 1976, and Essex Market, an indoor retail venue opened in the WPA era that has recently undergone a radical transformation.

⁶⁸⁸ <https://ilsr.org/dollar-stores/>

⁶⁸⁹ The interweaving of large wholesale markets, related retail activity, and nearby residential areas creates a distinctive culture which permeates throughout the city and influences its foodways. Notable examples include Les Halles, once known as “the belly of Paris,” London’s Smithfield Meat Market; and the Fulton Fish Market. While such market districts can at times degenerate into lawlessness or decay, it is nonetheless a cultural blow when they are broken up or gentrified, or when the markets themselves are moved outside of central cities.

⁶⁹⁰ Barbara Mensch, *South Street* (New York: Columbia University Press, 2007), 22.

The New York City Greenmarket

The Greenmarket is New York City’s principal farmers market network, and shows how a public market can be the anchor of its own food system. When the Greenmarket’s founders launched their effort in 1976, farmers markets were largely unknown. Most Americans, especially in urban areas, were not familiar with buying apples directly from a farmer’s hand. Their idea was to provide New Yorkers access to fresh, locally grown produce, fruit, dairy, and other farm products which were at that time nearly impossible to find anywhere in the city; to develop new and deeply needed sales outlets for regional family farms; and to create compelling destinations that would encourage city residents to walk and spend time outside, at a time when pedestrian life was increasingly diminished.

These goals have been achieved at an impressive scale. Today, GrowNYC, the non-profit that runs Greenmarket, oversees a network of 50 outdoor farmers markets in all five boroughs of New York City, half of which are open year-round. During peak season the markets serve over 250,000 customers per week, including low-income residents who yearly make \$1 million worth of SNAP (“food stamp”) purchases. As of this year, roughly 200 independently owned farms in New York, New Jersey, Pennsylvania, Massachusetts, Vermont, and Connecticut participate in Greenmarket, and many of them would not be in business without this vital sales outlet. Local chefs have long been among the Greenmarket’s loyal customers, but GrowNYC has also been developing a wholesale operation that distributes produce from 50 mid-sized regional farms to restaurants, grocery stores, and other institutional buyers around the city.

For New Yorkers, the Greenmarket provides a viable alternative to the increasingly monopolized industrial food system in ways that most supermarkets do not. For example: as is widely known, the “big four” beef-packing firms now control 82% of the retail market, while the top four poultry firms control 54% and the top four hog firms 66% of sales.⁶⁹¹ The same companies also control fertilizer, feed, and equipment distribution, transportation networks, and even financing services, which further consolidates their power. Yet of Greenmarket’s 200 total vendors, close to 50 sell poultry, pork, and beef they raise themselves. These independent businesses account for 100% of all meat sales to Greenmarket customers, with no shares taken by the consolidated meat industry.

land | animals | feed | medicine | equipment | processing | distribution | retail

Of the links in the abstract food chain above, most Greenmarket farmers own their land, and are generally still able to buy animals, feed, machinery, and medical supplies from local, independently owned businesses, even though the grain, equipment, and pharmaceuticals are themselves largely produced or supplied by consolidated industries. The regional slaughterhouses they use are also independently owned. The Greenmarket supply chain comes as close as possible to representing the goals of Antitrust, whatever might be said of the niche

⁶⁹¹ <https://www.whitehouse.gov/briefing-room/blog/2021/09/08/addressing-concentration-in-the-meat-processing-industry-to-lower-food-prices-for-american-families/>

represented by its customer base, or the limited scale of its sales compared to the overall food industry. If anything, the Greenmarket farmers (and their customers) pay a premium for being *outside* of the big business system, because industry concentration has resulted in fewer and fewer locally owned feed mills, equipment dealers, processing plants, and other needs, which drives up costs.

Along with 8,600 farmers markets across the nation, as well as food co-ops and independent retailers, the Greenmarket is the keystone of an alternative food economy it both creates and sustains. Whether one subscribes to it or not, the “farm to table” movement embodied by farmers markets has shaped this country’s thinking about food, in a way that is strongly allied with the goals of Antitrust. The idea that independent, small and mid-sized farms and food businesses could create a food system that is good for the environment, for public health, for animal welfare, and for local and regional economies⁶⁹² owes a good deal of its currency to farmers markets and especially Greenmarket with its presence in a worldwide cultural center. It is repeated and amplified in myriad ways by the mainstream media, the advertising industry, elected officials, books, articles, publications, television programming, ads, and countless social media posts. This vision fuels the employment of chefs, restaurant workers, food writers, cooks, bakers, photographers, stylists, public relations firms, product developers, artists, and more. It takes only imagining New York without the Greenmarket, or our nation wholly devoid of farmers markets, to realize the extent of their cultural and economic impact. As well, farmers markets support emotional well-being, serving as a visceral connection to the countryside for thousands of urban and suburban residents who otherwise have no ready access to it; and the reassurance of the shared human connectivity that comes from doing business with real people, rather than corporations.

Greenmarket’s impact on New York City’s food culture is in direct proportion to its integrity. New Yorkers, already skeptical by nature, are by and large assured they really *are* getting fresh local food grown on local farms, worth whatever it costs, when they shop at Greenmarket. This assurance does not come by accident. Two of Greenmarket’s 25 full time staff spend their days visiting all of the participating farms, sometimes unannounced, conducting paperwork audits and comparing this data with day-by-day inventories taken at each farmer’s stall by individual market managers. The market managers dedicate significant time to conduct these inventories, especially at large locations like Union Square. All this effort is to ensure that the farmers are selling what they grow themselves. The inspectors also engage outside consultants with varied expertise – livestock management, organic standards, dairy practices – to determine that farms are living up to their claims. Market managers keep after farmers, ensuring they arrive on time, that they only occupy their allotted space (always at a premium in New York), post their names, prices, and other signage as required, and treat market workers, as well as other farmers, with respect. Those who know the system will be the first to tell you it isn’t perfect, that it needs more resources, that some cheaters are hard to catch, that it can be disheartening to learn that farmers

⁶⁹² The contributors to *Local Food Systems and Community Economic Development* (New York: Routledge, 2020) convincingly propose that many of these visionary goals have yet to be substantiated through rigorous analysis. That does not detract from the sway held by farmers markets, which is simultaneously concrete and intangible.

can be liars (just like corporations), and that it is tiring to police people all the time. These things can all be true, while it is also true that by and large, the regulations work, and that vendors want the rules to exist and be enforced because they know their own reputation depends on the reputation of the market.

This was not always the case. Around twenty years ago, during a period of rapid expansion, the Greenmarket had begun to grow somewhat lawless, with a manager coercing farmers to sell to “preferred” chef customers, while some vendors were flagrantly carrying produce they picked up from wholesale distributors. But these abuses were uncovered, confronted, and ended by Greenmarket, with input from its community advisory board. The abuses committed by Big Food are much more difficult to grasp. Greenwashing, humane washing, mislabeling, the dilution of organic standards – in these and many other ways, the consolidated food industry thrives by creating confusion. Public markets provide an antidote to the babble, by creating the arenas where trust-based transactions are conducted.

Essex Market

Essex Market shows how public markets can be revitalized to meet contemporary needs, and also proves they can reclaim their status as civic institutions that provide an uplifting, shared experience. Essex Market has a long history in Manhattan’s Lower East Side neighborhood, where it was first established in 1818. In 2019, its vendors were relocated from an aging, Depression-era market shed into a gleaming, brand-new facility. Together with this move, a number of factors converged to transform Essex Market into a public space reflecting the values of another era, before the industrial food system took hold.

A visit to Essex Market today reveals it as no ordinary food store. At first glance it seems familiar enough, its multiple vendor stalls strung along long corridors, each with different offerings for sale. But the shops all have a similar appearance, with new equipment, sleek display cases, stone and marble countertops, solid wood shelving – the kind of look and fixtures you might expect to see at Whole Foods, or a “bespoke” gourmet store (though also with a comforting nod to Ikea aesthetics). All the vendors have identical overhead signs, their names spelled out in the same typeface. But one sells fresh porgies and mackerel at \$4 and \$5 a pound, while a few stalls down, another vendor displays different types of house-cured salmon, all costing ten times more at \$45 a pound. A grocery, whose customers are mostly Dominican and Puerto Rican and rely heavily on SNAP (“food stamps”), sells piles of dry beans, fresh cilantro by the handful, and plantains for 50¢ apiece. Across the corridor, one of the city’s best specialty shops carries tins of upscale potato chips from Spain, Vichy mineral water, French and Italian cheeses, and artisan chocolate bars for \$14 each. And the market’s vendors are Dominican, Chinese, Korean, Russian, Japanese, Mexican, South Asian, Turkish, Moroccan, Peruvian; white, black, and brown, small business owners and workers who represent the full spectrum of New York’s diversity.

The dynamic of affordable corner bodegas selling side-by-side with artisan cheese mongers had already existed in the old Essex Market, but there everyone was dragged down by the tired, hopeless feel of aging and unrenovated buildings from that wartime era. In the new market, they

are all placed on the same platform, whether they carry beef empanadas or vegan cheese. There is no “poor door” at Essex Market but there are plenty of lower income people shopping there, together with more affluent neighbors, in a glorious space where the daylight streams in through high windows. A recent consultant’s study shows the market’s neighborhood demographics consist of “traditional / contemporary” lower income groups termed by the data industry as “Social Security Set,” “High Rise Renters,” and “Downtown Melting Pot” as well as “hip / trendy” higher income “Trendsetters,” “Metro Renters” and “Laptops + Lattes”.⁶⁹³ On the public mezzanine, above the busy market floor, they are all there, exactly as described, at all times of day, every race, every age group, every bank account. What’s more relevant is they all feel this space, as welcoming as it is grand, belongs to them. They have purchased what they like and what they can afford. They are at ease as they take a seat, eat their lunch, check their phone, meet with friends after school. Hiding in plain sight at Essex Market is a 21st century agora.

While other shared environments, such as parks, train stations or museums can feel just as democratic, it is novel and distinctive for a place of commerce to show this same quality, especially in a consumer culture where the gap between the haves and the have-nots only seems to widen with each passing year. We have seen the rise of luxury malls and strip malls, of Neiman Marcus and of Walmart, but don’t normally find such a range of commerce under one roof. And the widening of choice that comes from economic inclusivity does not only flow in one direction. When one of the city’s premier specialty shops began accepting EBT at their Essex Market stall, they saw a correlated rise in sales of farmstead cheeses and hand-cured meats. As it turns out, lower income people understand the value of quality in food. They just don’t always have the means to buy it.

The decision to move Essex Market into a new building emerged from an atypically comprehensive and responsive community planning effort. Adjacent to the old Essex Market was a large, multi-block urban renewal site (the Seward Park Urban Renewal Area or SPURA) that had been razed in the late 1950s and lain fallow since that time due to powerful local opposition to each of the redevelopment plans proposed by the city. After the defeat of yet another proposal, the city’s Bloomberg administration engaged with neighborhood leaders, organizations, and residents to develop goals for the SPURA site which eventually included the market’s relocation. Unlike so many previous efforts where community input was neither solicited nor considered, the final plan, named Essex Crossing by its eventual developers, was accepted by the neighborhood. This inclusive process alone casts a positive light on the development as a whole, as well as the market, and should not be discounted as one of the reasons for the new market’s success. As noted by architecture critic Michael Kimmelman, the Essex Crossing project

...is a reminder that what can seem like kneejerk public resistance to new developments, even ones that promise affordable housing, can’t simply be chalked up to NIMBYism. If residents don’t know how, or whether, a project fits into some shared, participatory, longer-term vision for a neighborhood, then the most modest new condo tower can become a call to the barricades.

⁶⁹³ Report to WXY and NYCEDC by Larisa Ortiz Associates, 2018.

*Essex Crossing earned its community buy-in by delivering on promised benefits upfront. That's still no substitute for city planning. But it points toward a better way.*⁶⁹⁴

The community made a number of requests relating to the market's move, all of which were met by the New York City Economic Development Corporation (NYCEDC), which oversees the city's public market system. These included that all of the old market's 24 tenants (the "legacy vendors") would have the right to move into the new facility, and to be given a like-sized stall with equivalent, new equipment, at no charge to them. They were also guaranteed to keep their old rents, with minimal scheduled increases, after moving into the new building. Such assurances helped lead to an outcome where most of the market's legacy vendors, including three groceries, a butcher shop, and a fishmonger who all cater to a significant lower income population, moved into the new market. This more than anything is what makes Essex Market so unusual, and worthy of study and replication. Most of the new "markets" built in this country today are either food courts appealing to office workers and tourists, or more "high-end" destinations known for their expensive specialty shops. Essex Market too has specialty retailers who have helped make it into a citywide food destination, but close to 50% of the floor area is dedicated to highly affordable food, which makes it as democratic as the 19th century public markets lauded by Thomas DeVoe.

Additionally, the developer chosen for this project (Delancey Street Associates) and their lead architect (SHoP) both felt that the market should be the centerpiece of the entire site, and they invested heavily in its design and in the quality of materials. The need to merge the legacy tenants with new vendors in a brand-new space where they would open all at once led to each stall being built to the same high aesthetic standards, as were the public mezzanine and its adjacent, well-appointed demo kitchen. Another part of the market's welcoming identity is the thoughtful and well frequented Fresh Bites cooking classes, held in the demo kitchen, where participants learn how to cook and eat healthy on a limited budget. Fresh Bites is managed by the Lower East Side Partnership, the neighborhood's business improvement district, which also contracts with NYCEDC to provide support services to the Essex Market vendors. The Fresh Bites cooking classes are taught in Spanish, Chinese, and English to senior citizens, schoolkids, young parents, and teenagers. The demo kitchen is also used for wine tastings, vegan cheesemaking classes, and other "foodie" pursuits. Bringing diverse people to the same space is only one aspect of building community. It is equally as important for these same people to feel and claim the space as their own.

Unlike the farmers at the Greenmarket, most of the Essex Market vendors have no choice but to carry products from the industrial food system. The legacy butcher sells factory farmed meat sourced from one or more of the "big four" processors. The tacos, the chicken over rice, and even the cured salmon are made with industrial commodity products. In these ways, Essex Market is more tied into Big Food than is the Greenmarket, though with the silver lining that at least under the present food system, this also makes it a more affordable place to shop. But as a retail venue, Essex Market is still much more aligned with Antitrust than a typical supermarket.

⁶⁹⁴ <https://www.nytimes.com/2019/11/07/arts/design/essex-crossing.html>

The grocery stores don't charge stocking fees or shelving fees, and have even offered shelf space to startups and small producers who want to test their products. While they do carry some branded, processed foods like cereal, snacks, and soda, they also feature a much wider selection of fresh fruit and produce than typical convenience stores or bodegas, and by ratio of fresh vs. packaged foods, much more than a typical supermarket. The Essex Market grocers are able to sell produce cheaply because they pick it up themselves, every day at 4am, from New York's wholesale public markets in Brooklyn and the Bronx. Though this discourse has focused on retail markets, I will note here that wholesale markets are also essential components of alternative food systems, and one reason why such a great variety of foods can be found in cities like New York that are not so completely beholden to national distributors and their offerings.

We also feel something intangible at Essex Market, at the Greenmarket, and public markets in general: the diminished presence, or even total absence, of corporate food branding. The market concentration targeted by Antitrust is chiefly understood as mergers, acquisitions, captured market share, quarterly earnings, dollars spent on lobbying, and similar concepts that are largely removed from our day-to-day experience. But market concentration is also expressed as the studied and relentless targeting of our attention spawned by advertising and repeated endlessly, package by package, bottle by bottle, SKU by SKU on the supermarket shelf. The public market gives us space to breathe, with eyes drawn more by the unbranded produce, the fresh cuts of meat, the wheels of cheese, displayed on shelves and in cold cases without shrink wrapping, labels, or packages, just food and performance, a theater of the possible in a world where we are viewed more as consumers than as people.

Why Public Markets

My interest and understanding of public markets stem in great part from having conceived, developed, and managed one myself: New Amsterdam Market, which ran from 2005 to 2014. Inspired by the public markets of 19th century New York, New Amsterdam Market brought together not farmers but a new generation of small food businesses like butchers, grocers, bakers, and fishmongers, as well as "good food" manufacturers. Vendors were required to source all of their ingredients from regional, sustainable farms with high standards for animal welfare. Fair-trade sourcing was also allowed. It was the test of an idea, considering that mission-driven enterprises like this barely existed at that time. But over a decade of operation, New Amsterdam Market worked with more than 300 purveyors and other small businesses committed to these ideals, and to growing a fair and more equitable food system. While not all of these ventures have survived, many of them have continued growing and are thriving today. And similar new businesses, equally as committed, have continued to emerge, including a community of distributors who carry exclusively regional products, many of them organic, from small and mid-sized farms that are outside of corporate control. My experience with New Amsterdam Market shows that creating a values-driven forum will both attract and help incubate like-minded endeavors, and that public markets still have a role to play in creating future food systems.

Public markets are in fact most interesting and most transformative at those times when they are being created, or when they enter periods of growth and change. They become fertile ground for

new ideas, new businesses, new relationships, and new supply chains. At the same time, they create and strengthen links between the vendors and the communities they serve. These networks are the filaments of culture. It is probably no accident that Plato, Socrates, and Aristotle all spent time debating and conversing in the headiness of the Athenian Agora, where they both gathered and disseminated their ideas.

The consolidated food system challenged by Antitrust today owes its existence not only to corporate greed, but also to cultural acceptance of this status quo. The laws of Antitrust can chip away at concentrated power, but they will dissolve it altogether when other ways of doing business hold more sway. The more we see, believe in, and follow new ways of thinking about food, the more we weaken those that dominate today. Public markets are the ideal stage for testing and creating better food systems because they are real places, that answer to real people, in real time, unlike the promised *metaverse* to come.

In the early days of the internet, there was breathless excitement that e-commerce would lead to greater price transparency, allowing shoppers to know exactly where to find the best deals. This was supposed to be good for consumers and bad for retailers forced to compete with one another in a profitability-killing race to the lowest prices. Instead another reality has emerged: Shoppers are losing sight of what things cost ... increasingly overwhelmed by the complexity of product options, prices, discounts and payment plans.⁶⁹⁵

Public markets host multiple, independent small businesses under one roof, each with their own networks, supply chains, and business models. Public markets develop and sustain connections between growers, producers, distributors, retailers, and consumers. They are a forum where complex and contradictory ideas can be tested, modified, and put into practice, and a petri dish where informal commerce grows into economic development. Public markets can be venues for trust-based relationships, overseen and monitored by local communities. They can make policy visible, and help disseminate ideas outside of big business oversight and control. Public markets create new meanings, and put them into practice.

Public markets can also touch the soul. In one of his odes to the Fulton Fish Market, Joseph Mitchell wrote:

Every now and then, seeking to rid my mind of thoughts of death and doom, I get up early and go down to Fulton Fish Market. I usually arrive around five-thirty, and take a walk through the two huge open-fronted market sheds, the Old Market and the New Market, whose fronts rest on South Street and whose backs rest on piles in the East River. At that time, a little while before the trading begins, the stands in the sheds are heaped high and spilling over with forty to sixty kinds of finfish and shellfish from the East Coast, the West Coast, the Gulf Coast, and half a dozen foreign countries. The smoky riverbank dawn, the racket the fishmongers make, the seaweedy

⁶⁹⁵ <https://www.nytimes.com/2022/02/26/technology/amazon-price-swings-shopping.html>

*smell, and the sight of this plentifulness always give me a feeling of well-being, and sometimes they elate me.*⁶⁹⁶

The main allée of the Union Square Greenmarket is a similarly vibrant place. People come there from all over the city on a market day, just to feel its energy. Likewise, the Essex Market mezzanine is now emerging as a commons nourished by the energy of public commerce taking place in the market hall below. Sealed off during the heaviest Covid surges, it seems to grow more crowded each time restrictions are lifted. Public markets have an important role to play as healing spaces for a society struggling with post-pandemic loneliness and isolation.

It is hardly controversial to state that we need new food systems to replace Big Food and the damage it inflicts on the planet, public health, and the economy. Such new food systems will emerge through multiple and varied efforts. As one recent example, in February 2022 New York City’s newly elected mayor, Eric Adams, issued an executive order⁶⁹⁷ calling for Good Food Purchasing procurement policies to support:

- Increased access to healthy food, especially to historically marginalized communities
- Environmental sustainability
- Local economies
- Valued Workforce
- Animal Welfare

These same standards can be embraced, upheld, and promoted by a new generation of retail and wholesale public markets, designed specifically to build new local and fair-trade foodways. Like a cross between the Greenmarket and Essex Market, they will offer fresh, regional ingredients year-round along with imported foods that are relevant to local communities.

It remains a challenge for healthy, fresh, ethically sourced foods to be more universally affordable. One school of thought is to accept at least some “industrial scale” food:

*Perhaps it would be more productive to focus on some hybrid approach where local foods and larger scale agriculture co-exist and complement one another. Given the current level of global integration of economies, it is unreasonable to think that all consumption will switch toward purely local. Local foods must exist within the context of a global economy.*⁶⁹⁸

My feeling is that the onus should not be on the farmers and producers to make real food cheaper, but on society to make sure everyone can afford it. To this end, numerous organizations and individuals have been rethinking how food is grown, produced, and distributed in systems

⁶⁹⁶ Joseph Mitchell *Up in the Old Hotel* (New York: Vintage, 1993), 439.

⁶⁹⁷ The City of New York, Office of the Mayor Executive Order No. 8 dated February 10, 2022 Commitment to Health and Nutrition: Food Standards and Good Food Purchasing.

⁶⁹⁸ R. David Lamie and Steven C. Deller, editors, *Local Food Systems and Community Economic Development* (New York: Routledge, 2020) p. 58.

designed to be equitable to everyone from the ground up, incorporating concepts such as mutual aid and “pay what you can” retail pricing. These and other innovations can become the framework for new public markets, which will attract, support, and incubate entirely new business models to replace the flawed ones of our time.

Cities and municipalities throughout the country can devise and implement their own food policies, and build public markets to support them. A vast and decentralized network of public food markets will work as a complement to Antitrust as it breaks down concentrated power, with the added value that it is also building something new to replace it.

Towards a Public Markets Policy

The first step to harnessing the potential of public markets is to recognize them as a type of civic infrastructure similar to schools, libraries, or transit systems, and to consider their value in terms of community impact and services provided, rather than solely as the rent received from vendors. I don’t suggest that public markets shouldn’t meet their operating costs. But especially if they are mission driven, it is important to look beyond rent to meet expenses, and to not perceive this as a shortcoming of the market. GrowNYC, for example, brings in more funds from government grants, foundations, and individual donations than it does from farmer rental fees at the Greenmarkets. These additional revenues support environmental education, greening initiatives, fair food distribution, youth employment, and a number of other programs that improve the quality of life for all New Yorkers.⁶⁹⁹ NYCEDC spends \$5 million yearly to run the retail public markets, which include not only the highly successful Essex Market but its underperforming cousins in Brooklyn and East Harlem. Framing all of these properties as public *assets*, and not liabilities, that have unrealized public benefit potential will be the first step towards their timely rehabilitation.

Thousands of farmers markets across the country have benefited from \$162 million in grants issued between 2006 and 2021 by the USDA’s Farmers Market Promotion Program (FMPP). As documented by the Farmers Market Coalition:

FMPP was established by Congress to help direct-to-consumer outlets like farmers markets attain self-sufficiency and provide economic and social benefits to both rural and urban communities ... Research suggests that with a small and targeted infusion of funds, markets can become stable, identify and leverage community partners and resources, facilitate volunteer staff, and establish viable operating and governance models that help local farmers compete in an increasingly sophisticated retail environment.⁷⁰⁰

⁶⁹⁹ GrowNYC Annual Report 2019 https://issuu.com/grownyc/docs/grownyc_2019_annual-report_digital?e=15344747/33202932

⁷⁰⁰ <https://farmersmarketcoalition.org/advocacy/farmers-market-promotion-program/>

The USDA also issues yearly grants under its Local Food Promotion Program, which funds projects such as food hubs and other infrastructure, and under the more recently created Regional Food Systems Partnership Program, which supports public and private collaborations to develop regional food systems. While these funding streams could help create and support public markets (and while of course farmers markets *are* a type of public market), the broader category of “public markets” and more specifically, ***public markets dedicated to promoting Antitrust***, should have its own, dedicated funding, issued by the USDA or a relevant federal agency.

Some might argue that subsidizing public markets is a “non-market” (if not outright socialist) approach to enforcing Antitrust. But the federal government now subsidizes the highly concentrated commodity crop industries⁷⁰¹ and the meat and dairy industries⁷⁰² with close to \$60 billion yearly. For the sake of balance, a minimum of \$5 billion yearly should be allocated to create and support the development of retail and wholesale public markets, designed to further Antitrust, across the country. To begin with, this funding should be raised through fines or taxes on environmentally destructive food production, though a shortcut might be to simply subtract it from the \$60 billion (if not more) that subsidizes Big Ag.

Public market advocates should also investigate the Biden Administration’s American Rescue Plan which allocates \$1 billion to building independent processing and distribution capacity so that farmers and ranchers can counteract “big four” consolidation in beef, pork, and poultry. A fuller representation of the supply chain would also include creating retail and wholesale public markets *designed* to drive demand for these products, thereby helping ensure the program’s long-term success and validating future funding increases.

Farmers markets would be eligible, as would permanent indoor markets like Essex Market, which have capital construction and maintenance costs. Grants would be directed to feasibility studies, business plan development, site selection and acquisition, facility design and construction, infrastructure improvements, inspection systems, initial operations, promotion, ongoing maintenance, and other relevant needs to ensure the public markets thrive. Cities, states, and regions would provide their own funding, as would the philanthropic sector.

Finally, to be successful, concept development, design, and programming of each market must be conducted at the local level, drawing from local resources, engaged with local communities. This proven approach is infinitely adaptable to local conditions, as are public markets themselves.

⁷⁰¹ <https://www.downsizinggovernment.org/agriculture/subsidies>

⁷⁰² <https://jia.sipa.columbia.edu/removing-meat-subsidy-our-cognitive-dissonance-around-animal-agriculture>

Creating the Conditions for Cooperative Groceries and Food Markets

Nathan Beacom & Benya Kraus

Introduction

From 1995 to 2010, rural Iowa lost half of its grocery stores,⁷⁰³ a pattern all too common in rural areas across the country. Remarkably, Nebraska has fared even worse than Iowa; in 2000, the state had 1,600 independent local grocery retailers—in the years since, more than 1,100 of these stores have closed.⁷⁰⁴ The effects of a lost grocery store on a rural community are far-reaching. Most straightforwardly, many of these communities become food deserts, meaning that it becomes increasingly difficult for residents to access fresh, healthy foods.⁷⁰⁵ The economic effects are also extensive, as the loss of a grocery store means the loss of commerce at other local businesses, which formerly experienced the benefit of the traffic brought in by the grocery.⁷⁰⁶ At the same time, loss of a grocery store, or the replacement of a store with a dollar store chain, means the loss of local wealth creation. In the end, losing an essential amenity like a grocery store also exacerbates the problems of population loss and failure to grow that lie behind a host of economic problems facing rural areas. While the present paper focuses largely on rural markets and smaller cities, parallel problems can be observed in urban food deserts, where a similar set of market dynamics mean that grocery stores consolidate into fewer and fewer large chains, and neighborhoods are left without adequate food access.

The magnitude of the loss outlined above is hard to calculate. If a state loses half of its stores, as Iowa has, or an even larger percentage, as Nebraska has, the resulting economic destruction is difficult to measure, but, given what we understand about the dynamics of grocery store loss in a given community, they are vast.

⁷⁰³ Tarancon, Alica, “Tipton store continues to thrive despite decline in rural grocery stores” August 7, 2017 KCRG, <https://www.kcrg.com/content/news/Tipton-store-continues-to-thrive-despite-decline-in-rural-grocery-stores--438992673.html>

⁷⁰⁴ Pritchard, Erika. “Small town grocery stores are closing at an alarming rate, including Ravenna Super Foods. One common factor in the closures? Dollar General.” Kearney Hub, Feb. 18, 2019, kearneyhub.com/business/small-town-grocery-stores-are-closing-at-an-alarming-rate-including-ravenna-super-foods-one/article_636d1c44-338d-11e9-bd96-bf718273b007.html.

⁷⁰⁵ Morton, Lois Wright, and Blanchard, Troy C. “Starved for Access: Live in Rural America’s Food Deserts” Rural Realities, Volume I Issue 4, 2007 Rural Sociological Society. file:///C:/Users/natha/AppData/Local/Temp/258_2_98043.pdf

⁷⁰⁶ Beacom, Nathan “Hunger and the Local Economy: Integrated State Level Approaches to Food Access” The Center for Rural Affairs, April 2021 <https://www.cfra.org/sites/default/files/publications/hunger-and-the-local-economy-integrated-state-level-approaches-to-food-access-white-paper.pdf>

The present paper will not retrace ground thoroughly covered elsewhere. The magnitude of grocery consolidation has been well documented,⁷⁰⁷⁷⁰⁸ and its ill effects ably studied and represented by scholars at a host of universities and think tanks. Given the abundance of statistical evidence with regard to the negative impacts of grocery consolidation, this paper will focus on models of ownership and operation that could buck the dominant trends. While there are important arguments to be had about antitrust enforcement, farm subsidies, and a host of other issues, this paper will leave such issues to one side, focusing instead on alternative business structures and the policies that could support them.

The forces driving those trends of consolidation, namely, economies of scope, scale, and agglomeration, are what they are, and their efficiency in responding to certain market needs is hard to escape. But in the grand calculus of economic efficiency, those at the margins are necessarily left in the lurch. Bringing vast quantities of cheap goods to store shelves means catering to a smaller set of large markets. What, then, are the alternative structures that could create economically sustainable channels for bringing healthy food retail to rural or distressed urban communities? The present paper proposes that a core element to answering that question is local community ownership; it looks to provide advice to policymakers on how to foster and promote such businesses, which are beneficial to the health of individuals, communities, and local economies. At the same time, these alternative structures represent a healthy form of competition in challenging the market concentration that currently dominates the sector.

Why Community Ownership?

Chief among the models for community ownership, and the most familiar to the general public, is the cooperative. This, however, is not the only model available; some communities, such as Gowrie, Iowa⁷⁰⁹ have opted to structure local ownership as a Limited Liability Corporation, with a large number of local members. In other places, community food markets have taken the form of ownership shares in live animals.⁷¹⁰ Some towns, like Manson, Iowa, have opted for a nonprofit structure of ownership.⁷¹¹

⁷⁰⁷ Hendrickson, Mar et. al “The Food System: Concentration and its impacts” A Special Report to the Family Farm Action Alliance, November 19, 2020 <https://farmaction.us/wp-content/uploads/2020/11/Hendrickson-et-al.-2020.-Concentration-and-Its-Impacts-FINAL.pdf>

⁷⁰⁸ Blanchard, Troy C. and Matthews, Todd L. “Retail Concentration, Food Deserts, and Food-disadvantaged Communities in Rural America” in C. Clare Hinrichs and Thomas A. Lyson Eds. *Remaking the North American Food System: Strategies for Sustainability* University of Nebraska Press, July 2009

⁷⁰⁹ “Community owned grocery store opens despite pandemic” Iowa PBS May 8, 2020

⁷¹⁰ Heavican, Kellen, “Nebraska meat processor says new herd share bill is a breakthrough for consumers” *Brownfield Ag News* March 24, 2021 <https://brownfieldagnews.com/news/nebraska-meat-processor-says-new-herd-share-bill-is-a-break-through-for-consumers/>

⁷¹¹ Johnson, Elias, “It takes a village’: Manson grocery store reopens as nonprofit” *We Are Iowa*, November 6, 2020 <https://www.weareiowa.com/article/news/local/manson-hometown-grocery-reopens-as-nonprofit-iowa-business-grocery-board/524-be630cc9-ff4d-4716-8242-948158ecfdb8>

This paper will focus chiefly on cooperatives, but many of the recommendations that apply to local cooperatives apply also to other community-based structures. We do not suggest that cooperative ownership is the only route to retaining or reviving alternative grocery markets in rural areas or elsewhere, but that they have certain benefits where more traditional forms of ownership are not viable because of a lack of capital or where the market will not support a chain store.

A. Store Retention

The benefits of community ownership, in the present context, have to do with their ability to root food retail to a particular place. This is true in a number of ways. First, with respect to the problem of grocery store loss, local ownership means incentives work toward keeping that *particular* store open; a store will not fall victim to the broader cost-benefit calculus of a national or international chain's plan for growth. Dispersed local ownership, as opposed to sole ownership, furthermore, means more access to capital and more distributed risk. These factors mean that a community-owned grocery can stand when others fall and can arise in communities where chains show no interest, especially in communities where no one individual has the capital and resources to take on the risk of retaining or starting a new grocery store.

Evidence of this dynamic can be observed in the history of rural cooperatives, which emerged in order to serve markets that were missed by the prevailing structures, organized by communities themselves in order to bring essential goods and services to the area. Historically, these had a key importance in bringing electricity to rural areas in the Midwest, and farmer/producer co-ops have played an important role in ag supply chains since the mid-19th century. In Iowa, for instance, in 2017, there were 618 grain and farm supply and petroleum co-op locations, employing 6,490 people and serving 129,000 members, with an annual sales volume of \$11.5 billion.⁷¹²

Keri Jacobs, an economist with Iowa State University Extension has described the role of rural cooperatives thus: “Co-ops operate differently than just strict profit maximization, they service the rural areas where investor-owned firms might not decide to have assets when no competition exists...Cooperatives maintain assets in rural areas that investor owned firms wouldn't. In many cases they are the reason we still have local services like banks in these rural areas..”⁷¹³

In Nebraska, for example, the communities of Holstien, Cody, Harrison, Cambridge, Potter, are among the small Nebraska towns that have successfully maintained independent groceries against the prevailing trends through community ownership. In the case of Cody, a new store, the Circle C market was constructed; in a town like Harrison, community members formed a co-op to save an existing store. Such an example can be found in Niehart, Montana, where residents banded together to purchase the humorously named Neihart Inconvenience Store after its owner retired in order to keep it in business. Niehart is on the extreme small end, with well under 200

⁷¹² Jacobs, Keri L. and Wall, Grant “Cooperatives Provide Necessary Market for Iowa Producers” Iowa State University Extension and Outreach February 14, 2017, <https://www.extension.iastate.edu/news/cooperatives-provide-necessary-market-iowa-producers>

⁷¹³ *Ibid*

full time residents, but it successfully maintains a cooperative today that provides essential goods to its region.⁷¹⁴ Geraldine, Montana, is not much bigger, at just over 200, but it, too, maintains a successful grocery owned by the community, bringing fresh produce to a town where residents once had to drive a half hour each way for groceries. One could go on listing small towns that have successfully used community ownership as a way of creating or preserving a local independent grocery.

These are important examples to note, because there is a prevailing cultural bias, not fully unjustified, which perceives cooperative groceries as necessarily overpriced and sustainable only in wealthy communities with a natural foods bent. While this may characterize some urban cooperatives, it is by no means an exhaustive description of the cooperative model or of the type of community that can sustain a cooperative.

B. Economic Benefits

The benefits to health and well being of retaining a local grocery are many, with the local replication rate of dollars spent being higher at a store with local ownership than a chain. That means that a local store grows more wealth in its community. It also draws traffic for community commerce, attracting travelers on nearby highways or adjacent communities. Without a local grocery store, communities have a more difficult time accessing healthy foods, and health outcomes themselves suffer as a result. If the only food available nearby are the processed goods at the gas station or Dollar General, communities will suffer those adverse effects that come from poor diet.

Cooperative and community owned groceries also generally place an emphasis on local sourcing, and these short supply chains have a host of environmental and economic benefits. It is worth quoting a previous paper, written by one of the present authors, at length:

As a 2010 summary report from the USDA on local food systems and economic development notes, these shorter supply chains can keep more dollars circulating in the local economy through import substitution and processing substitution, that is, by paying businesses within the community for the foods and services normally imported from or processed elsewhere. A 2009 input-output study in Iowa found that increased sale of produce and meat in local markets would have a positive multiplier effect on local and regional economies. For every dollar of local food production output, \$1.36 was produced in output elsewhere in the local economy. For every additional dollar spent in labor income, 44 cents in additional labor income is sustained in the rest of the local economy. There was

⁷¹⁴Johnson, Peter, “Small towns try co-ops to keep essential businesses” Great Falls Tribune, July 14, 2016 <https://www.greatfallstribune.com/story/money/2016/07/14/small-towns-try-co-ops-keep-essential-businesses/87067810/>

also a positive multiplier effect for employment. The model used in this study predicted higher farm income and more jobs in the region it studied.⁷¹⁵

C. Resiliency

The recent supply chain disruptions have shed a new light on the importance of distributed supply chains, short supply chains, domestic supply chains, and, in general, great redundancy. In the food sector, two striking examples of disruption have involved meat processing. The first is the massive interruption suffered in spring of 2020 due to temporary plant closures related to Covid-19, and the second was the disruption caused by the Russian hacking of systems at JBS. The first resulted in billions of dollars lost across the industry, tens of thousands of euthanized animals, and farms that went out of business,⁷¹⁶ among other costs that are no less dramatic for being hard to quantify, including environmental and economic costs on the local level. The second revealed a real weakness in the face of not only natural emergencies but national defense.

In light of these, the Biden administration has put an emphasis on supply chain resiliency.⁷¹⁷ Shifting the quantity of foods grown, processed, distributed and sold within the United States is one step toward promoting this resiliency. Another chief tool is to deconsolidate and decentralize processing outfits and other components of the supply chain, creating a positive redundancy for when the existing pipelines suffer disruptions. One response to the disruption in meat markets was the emergence of cooperative processing outfits,⁷¹⁸ where farmers banded together to share ownership in stationary or mobile processing facilities. This meant that they were no longer subject to the monopoly of the regional processing plant and the uncertainty involved with closures, but had processing in their own hands; it also meant that the supply chain became a fraction more resilient. Increasing the number of these cooperative processing outfits is one part of enabling these short supply chains and creating a more resilient food system. Cooperative processing, packaging, and distribution are a key structure for working against consolidation at large, and more will be said on that below.

Challenges to Cooperation

In preparing for this paper, we visited a number of cooperatives across South Dakota and Minnesota. They varied in size from the New Ulm Community Market and Cooperative (pop.

⁷¹⁵ Beacom, Nathan “Hunger and the Local Economy: Integrated State Level Approaches to Food Access” The Center for Rural Affairs, April 2021 <https://www.cfra.org/sites/default/files/publications/hunger-and-the-local-economy-integrated-state-level-approaches-to-food-access-white-paper.pdf>

⁷¹⁶ Miller, Henry, and Beacom, Nathan “A Strong Meat Sector for The Beef State: Examining State Meat Inspection and other State-Level

Policies for Supporting Small Meat Processing” Center for Rural Affairs, January 2021

https://www.cfra.org/sites/default/files/publications/a-strong-meat-sector-for-the-beef-state_0.pdf

⁷¹⁷ E.O. 14017 “Executive Order on America’s Supply Chains” February 24, 2021

<https://www.whitehouse.gov/briefing-room/presidential-actions/2021/02/24/executive-order-on-americas-supply-chains>

⁷¹⁸ Condon, Joe, “Local beef producers form co-op to re-open Kimberley beef plant” August 10, 2021, *Beef Central* <https://www.beefcentral.com/news/local-beef-producers-form-co-op-to-re-open-kimberley-beef-plant/>

13,242), to Natural Food Abundance in Aberdeen (28,225), to cooperatives in larger regional centers like Sioux Falls, SD (177,117), and Rochester, MN (206,848). In March 2020, the University of Minnesota Extension Regional Sustainable Development Partnerships also commissioned a set of case studies⁷¹⁹ of best practices and challenges encountered by several rural cooperatives in much smaller towns like Detroit Lakes (9,197), Harmony (976), and Finland, MN (176). This analysis draws upon the insights shared through the case studies, in addition to our own set of interviews, as well as past collaboration between the Center for Rural Affairs and the University of Nebraska's Cooperative Development Center, including with communities like Cody (147) and Harrison, NE (297).

A. Retaining Staff and Board Members

Several cooperatives we spoke to stated that their number one challenge was high staff turnover, especially amongst bookkeeping and board members, making proactive decision-making nearly impossible. Out of necessity, some cooperatives began with only volunteers. However, volunteer shifts present both liability as well as sustainability challenges long-term, and all coops have needed to hire on at least one paid general manager to support the operations full-time. In order to bridge this labor gap, some have incorporated high school part-time workers; for example, a cooperative in Cody, NE partners with a local high school business class to have a consistent group of students each year helping to staff the grocery cooperative and learn fundamental business skills. Another innovative model to the staffing challenge is the New Prague Farmhouse Market. Although not a traditional cooperative structure, this business is a membership-based grocery store located in a small building along Main Street. Members have 24/7 access to the store via key fob and a self-checkout system.

Board development and retention is another key area for success. Most cooperatives have developed a “policy governance” system, which delegates all operational decisions to the General Manager, allowing the board to focus on developing community partnerships, marketing to attract new members, and analyzing the membership fee and benefits structure to ensure long-term financial health. Membership in national organizations, like CoLuminate and the National Co-op Grocers, have helped emerging cooperatives gain the technical assistance around legal, HR, board and membership structures necessary for successful operations and governance. Additionally, the People's Food Coop in Rochester merged with a smaller, yet highly productive coop across the border in Wisconsin. This example offers a model for how general management operations can be shared across multiple grocery stores, while still maintaining local ownership and relevance at each. Such a merger may be beneficial for other cooperatives that struggle to maintain their own staffing infrastructure.

⁷¹⁹ Jarvi, Monica, “Innovations in Cooperative and Small” March 2020
<https://conservancy.umn.edu/bitstream/handle/11299/213840/Innovations%20in%20Cooperative%20and%20Small%20Grocery%20Report%202020.pdf?sequence=3&isAllowed=y>

B. Accessing Financing

Because cooperatives are for-profit entities that deliver returns to their community members rather than shareholders, they often do not fit squarely into either grant or loan programs. The former often require grant recipients to be a nonprofit or government entity, and in some cases the latter require a personal guarantee, as in the case of Small Business Administration loans. Because co-ops typically do not have a member with sufficient resources to make that guarantee, and instead rely on a large number of small shares, they are effectively prevented from accessing these loans.

C. Increasing Bargaining Power & Carving a Niche Market

Every cooperative we studied cited the need to differentiate their products and services from other major retailers in the area. This is especially true when larger chains have entered the health foods and natural foods markets in a bigger way. These larger chains, in turn, have greater bargaining power and can get lower prices than cooperatives for the same goods. Some cooperatives have worked around this by partnering with other cooperatives to purchase in larger volumes; membership in the National Co-Op Grocers also provides discounts for joint purchasing with co-ops from across the country. That said, increasing bargaining power remains a challenge among cooperatives. Further innovations in distributor and supply chain networks are needed.

In response, cooperatives have focused their attention on supplying *local*, rather than just organic products and health foods. The Manna Cooperative in Detroit Lakes, for example, sources the majority of its products via consignment with local producers, and has partnered with nearby Native communities to develop a Native meals kit, which includes Native recipes and local organic ingredients. The New Prague Farmhouse Market works directly with local producers to prepare their products for retail, including advising on canning and product labeling. The owner, like many other cooperatives, cited complex regulations as a challenge for local farmers to sell directly to groceries. For example, a local meat producer is able to sell his sausages to her, but unable to sell the homemade relish sauce that comes with it, due to additionally restrictive laws on those types of cottage goods.

Other added services carve a unique niche for cooperatives. Harmony Co-op has a community kitchen, which brings rental space income to the store, as well as increases traffic into the cooperative by partnering with university, high school, and community education programs that offer cooking and nutritional classes. The Aberdeen cooperative has a reverse osmosis water filtration system, which allows people from North Dakota and surrounding reservations to stock up on drinking water unavailable in their communities. Several other cooperatives have developed prepared food services, and offer on-site dining to encourage further traffic to their stores. These prepared food services have high returns, making them a critical asset for both community impact and financial sustainability. However, smaller cooperatives have cited challenges to permitting, licensing, and access to capital for new equipment as major challenges to building out this key service. For example, the Aberdeen cooperative shared that even slicing a melon to put on their shelves required a prepared foods permit.

Policy Recommendations

A. Tax and Regulatory Reform for Prepared Foods

Because of their lower volumes and their lack of access to cheaper supply chains, independent stores generally operate with narrow margins. Within a store, the department that does the best margins is usually prepared food. In most states, however, prepared foods come with additional burdens. One cooperative store manager in South Dakota explained how red tape prevented their store from offering prepared foods, even something as simple as cut melon or a cold sandwich. Cooperatives in other communities that were able to produce value-added foods consistently reported that their prepared foods department did by far the best margins. In addition to representing a better profit margin for a grocery store, prepared foods represent an added value and distinguishing factor for a small store. Especially in communities where lunch and dinner options are few, prepared foods represent a resource for the community as well as a draw into the store, where customers are likely to spend money on groceries as well, because of the convenience. With prepared foods, customers also find a place to socialize and build community.

Because of the important role of prepared foods for an independent grocery, we recommend that states remove additional prepared food taxes for independent grocers. Furthermore, thirteen states, including South Dakota, still tax groceries in general. Most states have recognized that this is a regressive tax, disproportionately affecting the poor, and that, in addition, it is a relatively poor source of state revenue. We recommend that states shift sales taxes away from grocery and toward growing areas in ecommerce, where the potential for revenue collection is better and where such taxes are less likely to be regressive.

B. Boost the Cooperative Development Grant Program

Most states are home to at least one Rural Cooperative Development Center, which may be either nonprofit or affiliated with a land grant university. In New Ulm and Ortonville, Minnesota, we encountered small cooperative startup groceries that were prevented from growing by a lack of technical knowledge. Cooperative development centers can help new cooperatives navigate complicated legal questions and regulatory barriers, provide technical instruction on business management, pricing, ordering, marketing, and other essential skills. In Montana and Nebraska, several successful rural cooperatives have been mentioned that owe their beginning, in part, to the assistance of a Rural Cooperative Development Center. At the same time, speaking to small co-ops in rural Minnesota, we found that store managers were not even aware of these resources.

Because of the utility of these programs, we recommend that Congress appropriate more funds annually to the Cooperative Development Grant Program through USDA, which provides grants of up to \$200,000 annually to expand the reach and capabilities of these centers.

C. State-level Cooperative Grants and Incentives

In addition to these federal grants, states can have an important role in providing resources to cooperative development, and states have an additional incentive to do so, because cooperatives tend to promote the sale of in-state agricultural products, which support the state's own economy and promote wealth replication within state borders. Minnesota, for example, offers the **Agricultural Growth, Research, and Innovation (AGRI) grant program**, which offers

funding to cooperatives and other businesses that increase sales and/or market access for Minnesota agricultural products. **In Missouri, the New Generation Cooperative Incentive Tax Credit Program** provides a major incentive, with a credit amounting to as much as \$1.5 million per year to new cooperative enterprises.

One of the key themes of our conversations with cooperative retail store managers was the difficulty in staying competitive on price point with other grocers, particularly the large chains, but even the natural grocery chains. These stores have the ability to purchase in larger volumes and, in virtue of that fact, bargain with suppliers for cheaper rates. They also have their own centralized distribution pipelines and distribution centers, which make ordering and distribution cheaper at large.

In the cooperative grocery sector, National Cooperative Grocers, a cooperative of which cooperative retailers are themselves member-owners, offers some of these benefits of scale to cooperative grocery. They offer branding, merchandising, and ordering assistance, as well as centralizing other business functions to cut down on redundancy and therefore spare the resources of individual stores. NCG works with suppliers, like Cooperative Partners, UNFI, and others to negotiate sale prices for cooperative grocery stores. Smaller stores can work with larger stores in order to receive frequent produce when the small store itself cannot meet the minimum order threshold for the supplier. States also have an interest in incentivizing cooperatives in order to retain or promote the existence of rural grocers in markets where other models do not fit, such as in Harrison, Nebraska, or Geraldine, Montana.

A key component to making these independent cooperatives competitive on price with other stores will be supporting infrastructure of this sort, including cooperative distributors, processors, and packers. If cooperatives could create a parallel, cooperative distribution model to those that are used in the dominant chains, they would be more capable of presenting competitive prices to the customer, while still offering the distinct products, experiences, and values that separate them from the chains writ large. These structures, while centralized enough to cut costs and add efficiency, would still be distributed and localized in ownership, and maintain the essential cooperative focus on benefiting the community. In other words, they would create more efficient, short supply chains, in addition to providing alternative routes for sourcing national products. A larger share of the existing cooperative and natural foods distributors is allocated to locally grown agricultural products.

Cooperative food processing, packaging, distribution, and sales outfits ought to benefit from state incentives, because they provide a distinct benefit to the economic wellbeing of a state. They do this by promoting local commerce and wealth creation, creating markets for local agriculture products, localizing various parts of the supply chains, and benefiting the environment through supporting local producers and shorter distribution channels. **States, therefore, ought to consider how they can use grant programs and tax incentives to promote the development of cooperative food business from farm to grocer.**

D. Increase Access to Federal Loans and Grants

As referenced above, the personal guarantee requirement on loans from the Small Business Administration is often prohibitive on cooperatives benefitting from those loans. Likewise, certain federal grants exclude cooperatives from qualification, while accepting similar businesses that are not cooperatively owned. **The Small Business Administration should, therefore, remove the personal guarantee requirement, and all federal agencies should ensure equitable access to funding for cooperatives**

Conclusion

As more rural communities lose their grocery stores than ever, community ownership, especially in the form of cooperatives, should be assessed seriously as a way of anchoring stores to communities underserved by the dominant corporations. At the same time, they ought to be taken seriously as an alternative competitor in the grocery retail market writ large. We have observed cooperative and community ownership arrangements that have sustained thriving stores in small towns that are in food deserts or that have very limited food options; we have also seen cooperatives as viable competitors in larger markets. In order to make these types of stores an option for more rural communities, and in order to make cooperatives a more competitive part of the sector, policy solutions need to be found to encourage supply chains efficient enough to bring competitive prices to co-ops.

Building Power In The Checkout Line: Why Social Movements Have Invested In — & Should Reinvest In — Retail Food Markets

J Noven

Executive Summary

Even amidst the decline of American public engagement, retail food markets have *expanded* their position at the center of cultural and community life. Social movements representing working-class and poor people have long understood the social centrality of such markets — and historically, they’ve invested in them as institutional vehicles for transformative community, political, and labor organizing.

Increasingly, social movement organizations (SMOs) identify the need for this sort of *deep organizing* (as opposed to shallow “mobilization” or “advocacy”) as essential to advancing working-class power. Those SMOs — labor unions, political parties, and community organizations — should again invest in organizing in and around retail food markets.

This paper seeks to outline why SMOs should combine grocery’s unique societal location, a host of novel digital technologies, and classic deep organizing to build new coalitions and leadership development models capable of the strategic mobilization necessary to create a more equitable food system.

Introduction

The Last Center Of Social Life

“Going to Whole Foods, want me to get you anything?” Judging by the Internet’s ravenous reaction to the pick-up line from Netflix’s *Master of None*⁷²⁰ (some had it used on them as many as eight times in a month⁷²¹), reports⁷²² of the retail food market’s death appear greatly exaggerated. In fact, as celebrity economists Tyler Cowen and Eugene Wei reflect: “Food has replaced music at the heart of the cultural conversation....”^{723,724} But you don’t have to look further than ABC’s Leslie Jones-hosted *Supermarket Sweep* revival or Trader Joe’s fans camping out to be the first ones in their town’s newest store⁷²⁵ (pictured) to appreciate that food is increasingly *the* shared touchstone for most Americans’ cultural life.



But it’s not only *culture* where food – and by extension, retail grocery shopping – reigns supreme. Grocery stores, along with restaurants, “are increasingly an organizing and revitalizing force in our cities.”⁷²⁶

Retail food markets — whether traditional grocery stores, football-sized superstores, yuppie market halls, dollar stores, farmers’ markets, or other insurgent forms — often act as some of the most central pillars of civic life in a society increasingly atomized, polarized, and quarantined.

Alienation & Its Discontents

The intertwined decline in social organization, social trust, and the political power of the labor class has been an object of mass-cultural fixation since the 1990s. Powerful figures as early as President Clinton decried a half century-long decline in American participation in civil society and associations.⁷²⁷ The factors leading to this precipitous decline are primarily beyond the scope of this paper; however, the effects of this increasing alienation track neatly with the shrinking

⁷²⁰ We emphatically *don’t* stan Aziz Anzari.

⁷²¹ Farokhmanesh, 2017.

⁷²² Sutton, 2014.

⁷²³ Wei et al., 2015.

⁷²⁴ Cowen, 2017.

⁷²⁵ *Shoppers Camp out for Huntsville Trader Joe’s Grand Opening*, 2021.

⁷²⁶ Cowen, 2017.

⁷²⁷ Putnam, 2001.

base of political power for the American working class and the increasing elite influence on politics.⁷²⁸

It is this devolution of social cohesion in American sociopolitical life that has led progressive politicians to repopularize the iconic Joe Hill creed: “don’t mourn, organize!” It’s also the same broader phenomenon that within the American social movement landscape has redirected investment — financial and otherwise — toward an *organizing* model of campaign strategy, whether in the 2005 “Change To Win” union federation⁷²⁹ split from the AFL-CIO to invest more in organizing efforts, or in the presidential campaigns of Bernie Sanders achieving new heights for American democratic socialism through novel distributed organizing tactics.⁷³⁰

These resurgent styles of organizing offer a return to a glorious past era of American working-class power (while rejecting its racist, xenophobic, and sexist legacy⁷³¹). And whether in formal electoral campaigns, labor, or in one of the more momentum⁷³²-driven 21st century social movements, all agree that deeper organizing in currently-unorganized communities is of paramount importance for building power for working people.⁷³³⁷³⁴⁷³⁵ As Randi Weingarten, President of the AFT teachers’ union during its recent period of dramatically increasing union membership and militancy,⁷³⁶ has said: “Community must become the new ‘density’ of American unionism.”⁷³⁷ As the leverage of any one constituency diminishes under financialized capitalism⁷³⁸ (as detailed in Alice Martin and Annie Quick’s pathbreaking “*Unions Renewed*”), deep organizing seems to be the most essential tool in social movement’s toolkit.

Food Markets & Community Organizing

However, even as modern SMOs invent and revive forms of community organizing to advance their aims, there is a conspicuous lack of attention paid to that last center of American public life: the retail food market. This inattention is notable not only because of its strategic negligence, but because retail food markets have historically served as a key pillar of social movement investment strategy. Food has always been a powerful mobilizing and organizing force. And while the 21st century has ushered in unprecedented cultural and political headwinds for food,

⁷²⁸ Martin Gilens and Benjamin I. Page, “Testing Theories of American Politics: Elites, Interest Groups, and Average Citizens,” *Perspectives on Politics* 12, no. 3 (September 2014): 564–81.

⁷²⁹ Emmanuel, 2006.

⁷³⁰ Grim, 2019

⁷³¹ Bruce Vail, “Acknowledging ‘Ugly History of Racism’ in Labor Movement, AFL-CIO Creates New Commission on Race,” In *These Times*, 2015.

⁷³² Engler and Engler, *This Is an Uprising*.

⁷³³ **“Community must become the new ‘density’ of American unionism.”**

⁷³⁴ Ken Green, “How Unions Build Strength Through Community Engagement,” *UnionTrack* (blog), October 29, 2019.

⁷³⁵ Nuala Bishari, “Bernie’s Strategy To Win California—And Everywhere,” 2020.

⁷³⁶ Randi Weingarten, “AFT’s Weingarten on New Union Membership Data,” American Federation of Teachers, 2018.

⁷³⁷ Green, K. (2019, October 29). How Unions Build Strength Through Community Engagement. *UnionTrack*.

⁷³⁸ Martin and Quick, *Unions Renewed*.

social movement organizations (SMOs) have not responded by returning to their previous investment in retail food markets, instead ceding the ground to multinationals like Amazon or Dollar General to control food vending in working communities.

This paper intends to showcase the rich history of social movement investment in retail grocery stores as an organizing and mobilizing institutional structure, and how various social, cultural, and political trends in the 21st century present ripe opportunities for investment by SMOs to achieve their popular goals.

In the first half of this paper, we'll introduce vocabulary and methodologies used by the country's most prodigious organizers to provide a framework for understanding the particular organizing and mobilizing strategies retail food markets are well-suited to provide institutional structure for. Then, we'll explore some of the ways that women, Black people, poor people, and other oppressed communities used grocery stores – often, but not exclusively – in cooperative models, and why those models collapsed or otherwise fell out of favor in the neoliberal era.

In the paper's second half, we'll discuss some of the changing social, cultural, political, and technological trends of the 21st century that indicate why SMO member-leaders should consider renewed investment in retail grocery models. We'll consider the present renaissance of politicized mutual aid societies and food service workers' organizing, and how retail grocery models offer a potential mechanism of deeper (and in some cases, desperately needed) institutionalization. Finally, we'll propose solutions, largely following the lead of actually-existing, but nascent or under-resourced, organizing in retail food markets.

About The Author

I've spent the last eight years of my life — including my formative political and professional years — studying and operating retail food markets. Since 2016, I've served as the Executive Director of the Berkeley Student Food Collective, the nonprofit, youth-governed, volunteer-run grocery co-op and organizing center in Berkeley, California, training and learning with over 150 young people each semester on how to integrate organizing literacy and practice with operating a successful grocery store. I'm also the principal staff contractor for the Network of Bay Area Worker Co-ops, where I support employee-owned businesses in the Bay Area in building working-class power and influence.

Further, my undergraduate thesis at the University of California, Berkeley, analyzed the collapse of the Consumers' Cooperative of Berkeley, the largest consumer grocery co-op in American history, and was the first such paper to do so using the University's archive of the co-op's full business records.

Methodology

Because of their centrality to American civic life, grocery stores offer an ideal institutional form for social movements to complement their existing community organizing efforts. To answer

why, we must understand more about the fracturing of American civic life such that grocery stores filled that void, and its implications for democracy and the lives of ordinary people. Then, we can turn to leaders in social movement organizing for their insights about the type of organizing and mobilizing necessary to build working-class power against the various political permutations of capital.

Bowling For Soup

“We see our families and our communities all over this country coming apart” was how Bill Clinton referenced the apparent breakdown of socio-political organization across the country in his 1995 State of the Union. He had been consulting with Robert Putnam, who’d skyrocketed into the public eye after publishing his seminal paper “Bowling Alone: America's Declining Social Capital” in the *Journal of Democracy*. Putnam surfaced data showing that “between 1965 and 1995, time devoted to clubs and organizations is down even more sharply — by roughly half.” Years later, in retrospect, Putnam identified a distinctly political element to this decline: there were also “sharp declines in many measures of collective political participation, including attending a rally or speech (off 36 percent between 1973 and 1993), attending a meeting on town or school affairs (off 39 percent), or working for a political party.”⁷³⁹

Mobilizing Vs. Organizing

While the reasons for this decline are manifold, some sociologists, along with contemporary scholars and practitioners of organizing, attribute much of “the ongoing shrinking of the public sphere” to a “significant and long-term shift away from *deep organizing* and toward shallow *mobilizing*,” to use the words of accomplished labor unionist and professor Jane McAlevey.⁷⁴⁰ Movement scholar Hahrie Han articulates this shift as such:

In the current environment, it can be tempting to short-circuit the process of developing activists by finding someone else who is already motivated and has the skills necessary for action. With the advent of new online technologies, big data, and analytics, finding these people—and getting to scale—is easier than ever before...

McAlevey contrasts this evermore dominant *mobilization* model with a *deep organizing model*:

⁷³⁹ Robert Putnam, “The Strange Disappearance of Civic America - The American Prospect,” 2001.

⁷⁴⁰ Jane McAlevey, *No Shortcuts: Organizing for Power in the New Gilded Age* (Oxford, New York: Oxford University Press, 2016).

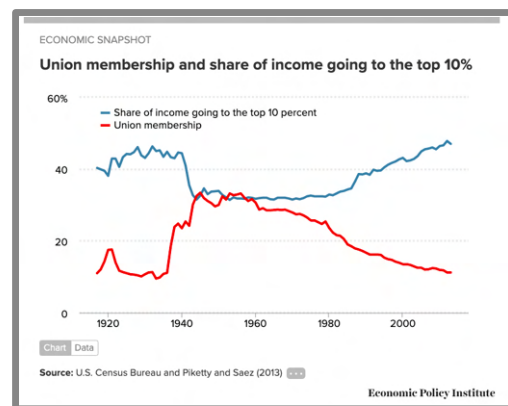
...too often [the people mobilized] are the same people: dedicated activists who show up over and over at every meeting and rally for all good causes, but without the full mass of their coworkers or community behind them...em...organizing places the agency for success with a continually expanding base of ordinary people, a mass of people never previously involved, who don't consider themselves activists at all...

Organizing, Or Oligarchy

The consequences of this decline of civic association — associations which Alexis de Tocqueville famously referred to as the “great free schools of democracy” — are evident in a growing body⁷⁴¹ of research that indicates that economic elites (also referred to in this paper as “forces of capital” or “capital”) have a disproportionate impact on American political outcomes, and that the decline of working-class organization has contributed to this thread.

Gilens and Page famously argued in 2014 that their statistical analysis of successful policy implementation “suggests that majorities of the American public actually have little influence over the policies our government adopts.”⁷⁴² Marshall Ganz & Art Reyes III connect “the erosion of civic infrastructure” to this renewed rise of elite rule and the “...evisceration of government itself. In spite of the challenges of globalization, financialization, and digitalization, efforts to manage them in the public interest were scuttled by political choices that enabled the privileged to grow more privileged.”⁷⁴³

At this point, we’re all familiar with the graphs that demonstrate the relationships between real wages, union density, and inequality in America. However, I’ve opted to include them as a visual representation of what economic outcomes look like when, as Gilens and Page write, “organized interest groups are found to have substantial independent influence on policy” but that overall, “interest-group alignments are not significantly related to the preferences of average citizens. The net alignments of the most influential, business-oriented groups [the overwhelming majority of interest groups] are negatively related to the average citizen’s wishes]...”⁷⁴⁴



Beyond The Choir And A Sense Of Place

⁷⁴¹ Read: Larry Bartels, Martin Gilens, Larry Jacobs, Benjamin Page, Elizabeth Rigby, Gerald Wright, and others.

⁷⁴² Martin Gilens and Benjamin I. Page, “Testing Theories of American Politics: Elites, Interest Groups, and Average Citizens.”

⁷⁴³ Marshall Ganz and Art Reyes III, “Reclaiming Civil Society (SSIR),” 2020.

⁷⁴⁴ Martin Gilens and Benjamin I. Page, “Testing Theories of American Politics: Elites, Interest Groups, and Average Citizens.”

In short, the associations of working people have been, at least in substantial part, outcompeted by capital-flush business-oriented associations. This (ongoing) defeat is often attributed to the overreliance of a political strategy of *mobilization* which relies on “communities of interest, which self-selecting activists join,” as movement scholar Jonathan Matthew Smucker writes.⁷⁴⁵ This has led to an ever more oppressive political and economic environment for ordinary people. What is needed, organizing advocates believe, “is to weave politics and collective action back into the fabric of society”⁷⁴⁶ through “the restoration of significant autonomy to an organized civil society.”⁷⁴⁷ Jane McAlevey goes even further when discussing the triumphs of the Civil Rights Movement and the New Deal-era CIO-driven union movement: “the lifeblood of these movements was mass participation by ordinary people, whose engagement was inspired by a cohesive community bound by a sense of place...”

Given the decline of America’s civil associations and public life, there’s perhaps no better place to foment “a sense of place” than the grocery store.

Bread & Butter (& Roses) Issues

While it might seem somewhat unorthodox for social movement organizations to fund the retail food market as a center for organizing with “a sense of place” today, 20th century America is full of examples. Saliently, the most successful blends of retail food markets and social movement organizations (SMOs) were rarely guided strictly by ideology, but instead by material necessity and a “deep sense of shared identity and linked fate.”⁷⁴⁸ This was true for poor immigrant women in the San Francisco Bay Area’s consumer cooperatives as it was for the Black southerners organizing against the Jim Crow-era power structure. Retail food markets can organize portions of the community which would otherwise be difficult to connect through other institutional networks; retail food markets can engage their patrons on literal bread and butter issues.

⁷⁴⁵ Jonathan Matthew Smucker, “What’s Wrong with Activism?,” July 23, 2012.

⁷⁴⁶ Jonathan Matthew Smucker, “What’s Wrong with Activism?,” July 23, 2012.

⁷⁴⁷ Marshall Ganz and Art Reyes III, “Reclaiming Civil Society (SSIR),” 2020.

⁷⁴⁸ Marshall Ganz and Art Reyes III, “Reclaiming Civil Society (SSIR),” 2020.

Dual Strategy In The Checkout Line

Black social movement organizations invested deeply in both formalized and more informal retail food markets as an institutional vehicle for combatting American racial apartheid. As Professor Jessica Gordon Nembhard catalogs in her essential text *Collective Courage: A History of African American Cooperative Economic Thought and Practice*, SMO investment in retail food markets was quite common: “in the 1940s...a variety of groups (churches, labor unions, housewives’ leagues, fraternal orders) sponsored buying clubs, grocery stores...”⁷⁴⁹



This type of investment is clear when reviewing the biography of many Black liberation leaders. For instance, Ella Baker, who helped build much of the intellectual and practical foundation for the Civil Rights Movement, was deeply invested in Black cooperatives as a means of building durable Black political coalitions. She was a “prodigious promoter” of grocery cooperatives; indeed, “much of [Baker’s] foundation for organizing was

learned working with consumer cooperatives in Harlem.”⁷⁵⁰

This accords with the beliefs of W.E.B. Dubois, famous Black communist thinker and leader who believed that Black social movements could “maintain good leadership through the deliberate and sustained education of both co-op leaders and members.” And no one exemplified this belief more than Fannie Lou Hamer, who was — like many of her Civil Rights contemporaries — “focus[ed] almost exclusively on food security and land ownership.” Hamer and her peers were continuing the legacy⁷⁵¹ of Black liberation thinkers and organizers before her as “pursuing a *dual strategy* of keeping issues in the national public eye through speeches, hearings, conferences, and national television and documentaries, while also providing food directly to her community and providing her neighbors with the means to sustain themselves.”⁷⁵²

⁷⁴⁹ Jessica Gordon Nembhard. *Collective Courage: A History of African American Cooperative Economic Thought and Practice*. 2014.

⁷⁵⁰ David Thompson, “Thurgood Marshall – From Cooperative Delivery Route to Civil Rights Advocacy,” *National Association of Housing Cooperatives — Cooperative Housing Bulletin*, 2014.

⁷⁵¹ David K. Haring, “Collective Production and Provision: The Cooperative Approach,” *American Behavioral Scientist* 24, no. 4 (1981): 495–518.

⁷⁵² Much of the literature on Black liberation movements’ investment in — and even emergence from — organizing in retail grocery outlets is sparse on details; more research is desperately needed.

Consumers' Cooperatives

Similarly, during the Great Depression, poor, mostly Finnish immigrants in the San Francisco Bay Area borrowed a method of providing basic staples directly to their community: a consumers' cooperative. What started out as a gas station soon turned into a 12-store, hundred-thousand member, hundred-million dollar annual revenue grocery and wholesaling behemoth with a decidedly political edge. The Consumers' Cooperative of Berkeley (CCB) is an important example of retail grocers' potential to mobilize broad populations through organizing. For fifty years, from the 1930s to the 1980s, the old Berkeley food co-op was a central organ of Berkeley's progressive politics: a political machine that, while often directed at the Cooperative's own internal policies, had wide reverberations across the state.

There are countless examples from the CCB — and several other consumer grocers throughout the 20th century — that sum up the grocery store's potential for political engagement. For instance, the use of consumer boycotts enabled by co-op member organizing. The Berkeley co-op for many years refused to sell grapes from non-union farms as part of a partnership with the United Farm Workers; *Co-op News* editor Paul Rauber remarked, “For years, many CCB members proudly boasted that their children had never tasted a grape.” Similarly, the co-op was able to push lively community-wide and even state-wide conversations about affirmative action (the co-op was one of the first businesses to employ affirmative action policies in hiring), labor struggles, and consumers' rights. Women volunteers were responsible for some of the best organizing work at the co-op, researching and executing different campaigns, mirroring a pattern throughout grocery related-organizing more broadly that should be explored in more depth. Its decline and collapse in the 1980s (due to a host of factors that I cover in my 2015 UC Berkeley thesis) represented the loss of one of America's most innovative civic associations and mass-political vehicles — that happened to also be a grocery store.



Community Campaigns

While it is not the focus of this paper, worker-led labor organizing at grocery stores has historically leveraged grocery stores' centrality in American life to win huge gains for working people. “Back then, it was a career,” says former unionized Safeway worker Susan Hart-Kulbaba.⁷⁵³ If “communities are the lifeblood of movements,”⁷⁵⁴ then it is clear that the preeminent success of midcentury unionized retail workers — especially in grocery stores — was predicated on their deep connection to their organized, place-based communities. This is what allowed them to conduct and support especially effective actions like boycotts and even general

⁷⁵³ Dan Darrah, “Grocery’s Long War: Part I,” 2020.

⁷⁵⁴

strikes,⁷⁵⁵ prompting a union newspaper at the time to remark that picketed grocers “found they could not do business in this city with the boycott on them...” The historic intersection of the labor movement within grocery stores and community organizing strategy also deserves further study by scholars.

Present Day

In the past decade, some social movements and their affiliated institutions have begun re-investing in food systems and retail grocery. In this paper, we’ll survey several different distinct and ongoing trends. These case studies will also provide insight into changing patterns in organizing, including the rise of digital and distributed organizing methods.

Mutual Aid

Mutual aid societies are not typically understood as retail food markets, but may present opportunities to better understand the potential for retail food markets to further experiment with building mobilizable networks. Mutual aid programs seemed to pop up everywhere in the midst of the COVID-19 pandemic and summer 2020 uprisings, fueled by high-profile endorsements like congresswoman Alexandria Ocasio Cortez (pictured here participating in a mutual aid program). Of course, mutual aid societies have been around for centuries, generally used by marginalized peoples to provide material goods and services like insurance to their members, whether in Chinese mutual savings societies or in Black-run mutual aid and pleasure clubs.

Mutual aid networks have been extraordinary popular with ordinary people looking to be able to materially support their neighbors while also advancing an organizing agenda for working-class objectives. Networks often have programs that involve “packing and delivering groceries and other basic necessities to neighbors, organizing and attending protests, reading radical texts together and forming a community of politically-aligned people committed to providing for one another.”⁷⁵⁶



However, the emergent nature of most mutual aid organizing models has proved difficult to sustain (reporting like “Local Mutual Aid Groups Face Dwindling Funds And Burnout Months Into The Pandemic” became commonplace just six months after the explosive growth at the outset of the COVID-19 pandemic).

⁷⁵⁵ Digital Collections: California Labor Federation, AFL-CIO: Proceedings and Publications.

⁷⁵⁶ Gathright, “Local Mutual Aid Groups Face Dwindling Funds And Burnout Months Into The Pandemic.”

Indeed, the institutional and financial instability of even the most preeminent mutual aid networks have pushed mutual aid programs to seek out more durable retail food market models, given their similarity; for instance, one prominent mutual aid network, East Brooklyn Mutual Aid, said it “hopes to achieve long-term sustainability by creating a food co-op, which will be run by and accessible to people of all income levels.”⁷⁵⁷

21st Century Food Co-ops

The 21st century food cooperative moment has also proved to be fertile ground for deeper community organizing. Two distinct subsectors for food cooperatives, *worker-owned* and *student-led*, have experienced a flurry of activity in the last decade in response to many of the aforementioned trends in food, politics, and more accessible consumer IT. Worker-owned food cooperatives in particular have emerged as a rallying point for many communities concerned about access to food and community solidarity against the backdrop of displacement of residents, historic small businesses, and public space through gentrification. Examples include Mandela Grocery Cooperative and the Detroit People’s Food Co-op.

I can speak to the student-driven food cooperative movement from direct experience: I’ve served as the longtime full-time staff member at the Berkeley Student Food Collective (“the Collective”), a small but high-traffic nonprofit student-governed retail food cooperative situated at the base of the UC Berkeley campus in California. The Collective was born out of student organizing: it falls somewhere in the lineage of student-run cooperatives, the city of Berkeley’s food cooperative organizing (see the Consumers’ Cooperative of Berkeley, above), and anti-privatization student struggles at public universities across the country. More saliently, the initial constituency for the Collective developed out of direct-action protests at Panda Express locations across the San Francisco Bay Area (pictured), pressuring the company to pull out of its contract with the university’s Student Union. The students were successful, and that organizing lineage continues today.

At its best, the Collective offers a vision in which organizing around working class struggle can be integrated into a grocery experience. The discounted storefront itself is operated by over 150 volunteers who serve 2 hours each week cashiering, cooking, and cleaning. Each of these members is required to attend member-developed trainings on key aspects of organizing literacy: one-on-one organizing conversations, power-mapping, issue identification, and more. Then, that more abstracted education is used to scaffold participation in food workers’ struggles locally, like the HelloFresh unionization campaign in nearby Richmond, California. Members are recruited for their interest in food (and their interest in receiving a discount at the store), and the diversity of our members and patrons

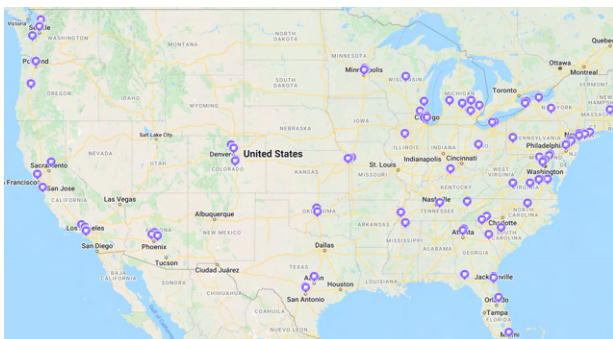


Paul Chinn / The Chronicle

⁷⁵⁷ Sklar, “A Year and a Half Into Pandemic, NYC’s Mutual Aid Movement at a Turning Point.”

means that our mobilization efforts — direct actions, phonebanks, and strategic pressure campaigns — are able to more widely penetrate a more varied community than a traditional self-selecting group.

Rank & File Organizing



After a high-profile and devastating pyrrhic victory in the Southern California supermarket strike of 2003–2004, retail food organizing went on the defensive for nearly 15 years (the exception being UNITE-HERE’s organizing of hospitality and corporate food service,⁷⁵⁸ which is perhaps best covered in more depth elsewhere). Since 2018, however, there seems to be an ongoing resurgence of militant rank-and-file organizing in retail food service (though not necessarily in retail grocery),

including workers from chains like California’s Tartine Bakery led by the International Longshore and Warehouse Union to the explosive Starbucks organizing campaign led by Workers United (the latter campaign pictured in the attached map). The latter union, which has set off explosive organizing at over 150 Starbucks across the country (and growing daily, as of March 2022), was previously a scrappy union with very few resources but with big ambitions and a heterodox strategic philosophy based on the deep organizing of the IWW.⁷⁵⁹ Despite skepticism of the scalability of these tactics,⁷⁶⁰ they have successfully set off an unprecedented worker-led organizing drive at over 150 Starbucks across the country. Other unions and social movement organizations looking to build mass militancy should take careful note of their strategy.

Similarly, supermarket workers, outraged over continued mistreatment after being labeled as “essential workers” during the early pandemic, are returning to relative labor militancy, securing “the most significant wage increase ever secured by a UFCW local chapter for grocery workers” in the January 2022 King Sooper Colorado supermarket strike.⁷⁶¹ Even the UFCW supermarkets that struggled in the 2003 supermarket strike are returning to strike-readiness for the first time in decades, an important barometer for other supermarket workers and organizers across the country.

⁷⁵⁸ Luke Elliott-Negri, “The Rank-and-File Tactic,” *Jacobin*, June 6, 2019.

⁷⁵⁹ Greg Jaffee, “A Rhodes Scholar Barista and the Fight to Unionize Starbucks,” *Washington Post*, February 12, 2022.

⁷⁶⁰ “But Ms. Jayaraman, of One Fair Wage, believes that unionizing can be an inefficient means for creating industrywide change. “We don’t think you can organize shop by shop by shop,” she said. She would prefer that workers and owners push for federal policies like raising the minimum wage.” Priya Krishna, “Organizing a Union in the Disorganized World of Small Restaurants,” *The New York Times*, July 19, 2021.

⁷⁶¹ Matt Bloom, “King Soopers Workers Ratify 3-Year Contract after Striking across Denver Metro,” *Colorado Public Radio*.

Solidarity Networks

Another under-studied phenomenon in retail food market organizing is the creation of the networks of solidarity and mobilization across retail markets, especially those operated by members of similar communities. While block-to-block merchant organizing has historically been a common social justice organizing tactic (for instance, the union SEIU was founded in Chicago using block-by-block retail organizing in the 1920s), its prevalence has diminished significantly over the past decades. However, small retail food markets, like New York City bodegas owned by Yemeni families, have proved fertile ground for new organizing drives, like in the 1,000-bodega strong Yemeni Bodega Strike of 2017 (pictured).⁷⁶² The strike was intended to protest President Donald Trump’s immigration ban, and did so by explicitly leveraging the cultural-economic centrality of retail food markets. As the Facebook page read: “This shutdown of grocery stores and bodegas will be a public show of the vital role these grocers and their families play in New York’s economic and social fabric,” anticipating many of the themes explored in this paper. Social movement organizations, if they choose to invest more in retail food market organizing, might be able to align themselves with — and help to build — similar far-reaching market coalitions.



Distributed Organizing

The new consumer-facing digital tools of the 21st century are not themselves innovations in the style of organizing. However, these tools — paired with “the number of people involved, the volunteer software developers who come out of the woodwork to build new tools, the availability of straightforward work...that everyone can do” — have enabled a new suite of replicable practices that are highly relevant to organizing around retail food markets. As movement scientist Hahrie Han writes: “distributed organizing, ’...[is] a blend of mobilizing and organizing helps civic associations build quality and quantity – or depth and breadth – of activism.”⁷⁶³ And while SMOs should heed her call not to — as quoted earlier — “short-circuit the process of developing activists,” distributed digital organizing tools present an opportunity to use the particularities of retail grocery markets’ business models to engage broad constituencies. A huge part of distributed digital organizing comes from, as Bernie Sanders senior advisor Becky Bond writes, “organizers figuring out how to integrate the huge opportunities that new, social technology provides with effective peer-to-peer organizing principles and practices as part of a smart, centralized plan.”⁷⁶⁴ A grocery store offers tremendous opportunities to bring people

⁷⁶² Adam Chandler, “The Yemeni Bodega Strike,” *The Atlantic*, February 4, 2017.

⁷⁶³ Hahrie Han, *How Organizations Develop Activists: Civic Associations and Leadership in the 21st Century*, 1st edition (Oxford ; New York: Oxford University Press, 2014).

⁷⁶⁴ Becky Bond and Zack Exley, *Rules for Revolutionaries: How Big Organizing Can Change Everything* (White River Junction, Vermont: Chelsea Green Publishing, 2016).

who are influential in the community who might not otherwise be social issue advocates — “organic leaders,” as Jane McAlevey refers to them — into the fold of such a plan, because of the relative heterogeneity of grocery shoppers and members. Indeed, leaders in developing distributed digital organizing frameworks understand its relationship to a transformative economic outlook: this type of organizing “will require unions and small business associations organizing not simply to demand concessions...but to actively reshape the economy.”⁷⁶⁵ Grocery stores already use a host of digital tracking techniques to track customers’ interests and buying patterns. Integrating this IT with modern organizing CRMs (contact relationship managers) in a way that respects privacy offers an opportunity for SMOs to integrate their knowledge of their constituents’ political and material needs. This new model of understanding political constituencies presents an opportunity to dramatically scale up some of the 20th century’s most transformative organizing strategies.⁷⁶⁶

Solutions

In surveying the history and present of the retail grocery store’s intersection with community organizing, and marrying that survey with additional context regarding cultural and technological developments, it is clear that grocery stores offer — and have offered — an institutional form for the type of power building that contemporary social movements are seeking. This paper recommends several solutions:

1. Social movement organizations should invest in new retail grocery operations to serve as focal points for new organizing.

This form of investment could mean investing in new cooperative or other community-financed solutions that incorporate a redistributive political vision. Candidates to finance such operations might include mature political parties with advanced fundraising operations, labor unions, community groups with a focus on organizing like Make The Road, or community groups seeking to build deep and enduring community ties.

2. SMOs should identify grocery stores and other retail grocery outlets with consumer or worker constituencies that could be organized, and should invest more heavily in organizing literacy and practice within them.

Existing grocery practitioners and experts rarely possess knowhow on classic structure-based organizing principles and practices. SMOs should create funding relationships to work with and expand community co-ops with aligned values and invest in developing ongoing organizing programs to be able to engage and mobilize their existing constituencies. SMOs should be able to offer a partnership that selects sufficiently popular campaigns in the community with minimal polarization while also bringing in new constituencies of shoppers with its organizing and mobilizing efforts, creating new markets for the retail markets. They should

⁷⁶⁵ Becky Bond and Zack Exley, *Rules for Revolutionaries: How Big Organizing Can Change Everything* (White River Junction, Vermont: Chelsea Green Publishing, 2016).

⁷⁶⁶ See section above, “Dual Strategy in the Checkout Line”

also introduce and train on new mobilization and targeting tools with a privacy emphasis which could blend traditional retail customer profiles with traditional political profiles to explore new methods of distributed organizing and advertising. Such tools, with an emphasis on privacy, could borrow from “dual strategy” efforts surveyed earlier in this paper to marry the tracking of political engagement with material needs.

Unions and worker centers should lead renewed pushes to organize retail food operations with a strong emphasis on their community connections, learning from the deep organizing, rank-and-file strategy, and community campaigns employed by Workers United and the International Longshore and Warehouse Union.

3. SMOs and governmental organizations should borrow all of the above tactics and more, experimenting with new institutional forms and retail food market programs to further civic engagement by ordinary people.

“Communities tell me: We don’t want to use the term co-op,” is how one staff member describes the reception to setting up community markets in rural areas. But rural communities

After the grocery store closed down in the northern Florida town of Baldwin, the city itself started up its own market after chains like Piggly Wiggly and Winn-Dixie declined the city’s entreaties to fill the empty space, Mayor Sean Lynch said. In Moran, Kan., a nonprofit group took over the old Stub’s Market as a community project. On the plains of eastern Montana, farmers and ranchers have banded together to create a “food hub” to sell beef and vegetables. Winchester’s new market, Great Scott! (named for the surrounding county), operates as a for-profit cooperative, financed by locals who got together in a church meeting hall last year to discuss the urgent need for a grocery store in their town.⁷⁶⁷

across the country are finding new ways to bring people together in a retail context — *The New York Times* provides great examples here:

And why not a city-owned grocery store — doubly so one that can support the city in building out broader based constituencies for developing new public projects held in the commons beyond a grocery store?

That is — ultimately — the core of this paper, and of my time organizing within the retail grocery sector: working peoples’ situations are ever more dire; people love grocery shopping; there’s never been a better time to experiment. A combination of cultural shifts toward food, new distributed organizing tools, and resurgent and innovative social movements means that the time is ripe to reimagine what a real “community grocery” can look like. But instead of the veneer of belonging offered by the Whole Foods of the world, these reimaginings should offer opportunities to tap into a deeper civic fabric, one that helps ordinary people to identify who wields power in their communities and why — and to build the ties and skillsets of solidarity to help build something different.

⁷⁶⁷ Jack Healy, “Farm Country Feeds America. But Just Try Buying Groceries There.,” *The New York Times*, November 5, 2019.

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