

THIRD SUPPLEMENT TO MEMORANDUM 2024-46

Antitrust Law: Status Update (Public Comment and Presentations)

This supplement presents information about public comment and presentations from panelists submitted to date.¹

The slides and public comment are attached as Exhibits to this supplement.

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PUBLIC COMMENT

Computer & Communications Industry Association

The Computer & Communications Industry Association (CCIA) submitted a public comment on October 9, 2024, responsive to the expert report on Artificial Intelligence.² According to its [website](#):

CCIA is an international, not-for-profit trade association representing a broad cross section of communications and technology firms. For more than 50 years, CCIA has promoted open markets, open systems, and open networks. CCIA members employ more than 1.6 million workers, invest more than \$100 billion in research and development, and contribute trillions of dollars in productivity to the global economy.

¹ Any California Law Revision Commission document referred to in this memorandum can be obtained from the Commission. Recent materials can be downloaded from the Commission's website (www.clrc.ca.gov). Other materials can be obtained by contacting the Commission's staff, through the website or otherwise. The Commission welcomes written comments at any time during its study process.

Any comments received will be a part of the public record and may be considered at a public meeting. However, comments that are received less than five business days prior to a Commission meeting may be presented without staff analysis.

² See Memorandum [2024-47](#).

Respectfully submitted,

Sharon Reilly
Executive Director

Sarah Huchel
Staff Counsel



October 9, 2024

California Law Revision Commission
Attn: Sharon Reilly, Executive Director
c/o Legislative Counsel Bureau
925 L Street, Suite 275
Sacramento, CA 95814

**Re: California Law Revision Commission - Study B-750 (Antitrust Law),
Expert Report: Artificial Intelligence**

Dear Executive Director Reilly and Members of the California Law Revision Commission:

On behalf of the Computer & Communications Industry Association (CCIA)¹, I write in response to the California Law Revision Commission's ongoing work pursuant to Study B-750 (Antitrust Law). CCIA has long advocated for sound competition policy and antitrust enforcement. We appreciate the opportunity to provide input to the Commission's ongoing study of antitrust law, and acknowledge the Commission's continued effort during this study to analyze the state's best approach towards antitrust regulation.

As the Commission continues its series of meetings focused on specific areas of antitrust law, we write to offer comments in response to the published expert working group report on Artificial Intelligence (AI), by Abiel Garcia, David Kesselman, Samuel R. Miller, Diana Moss, and Fiona Scott Morton.² CCIA is grateful for the opportunity to expand on our feedback and looks forward to the Commission's upcoming meeting on October 10.

Generative AI is a rapidly evolving field with immense potential. While it presents new competitive challenges, the market remains highly dynamic and competitive. Factors like open-source models, diverse business strategies, and decreasing costs of development are fostering innovation and competition.

The advent of the unprecedented global growth and transformative potential associated with AI carries a wealth of benefits to both businesses and consumers, including reducing human error and streamlining processes that allow for gains in efficiency and innovation. AI is not a single technology but rather a family of related, but distinct, technologies, each of which may be applied in significantly different contexts. Applying rules designed for one type of AI or one context to another situation can hinder the development of new forms of AI and create, rather than reduce, harm.³

¹ CCIA is an international, not-for-profit trade association representing a broad cross section of communications and technology firms. For over fifty years, CCIA has promoted open markets, open systems, and open networks. CCIA members employ more than 1.6 million workers, invest more than \$100 billion in research and development, and contribute trillions of dollars in productivity to the global economy. For more information, visit www.ccianet.org.

² California Law Revision Commission, "MEMORANDUM 2024-47, Expert Report: Artificial Intelligence", <http://www.clrc.ca.gov/pub/2024/MM24-47.pdf>.

³ CCIA, "Understanding AI: A Guide To Sensible Governance" (Jun. 26, 2023), at 2, <https://ccianet.org/library/understanding-ai-guide-to-sensible-governance/>.

Further, the generative AI market is nascent and developing rapidly. With the increasing availability of high-quality data, computing power, and the growth of machine learning, competition within the generative AI landscape is highly dynamic at all levels of the AI value chain. The diversity of business models and strategies is striking, with a wide range of open source and proprietary models being developed by large and small companies alike, whether for general or more specific use. This dynamic competition further demonstrates that there is space and growth potential for new entrants. In addition, we see a global competition for AI investment and innovation, in which China appears to be leading the race, in particular regarding generative AI adoption⁴ and implementation,⁵ which also raises the question how the U.S., California specifically, and other jurisdictions want to position themselves in this international race for AI investment and innovation.

Generative AI is raising new questions about competition, market concentration, and innovation. These changes can seem complicated, but emerging AI innovations are contributing to a notably competitive ecosystem in AI.⁶ Moreover, as competition heats up in online search, consumer marketplaces, and cloud computing, AI continues to upend markets, with new features being launched seemingly every day.⁷ As an example, new AI chatbots are making the AI marketplace competitive through the utilization and deployment of unique large language models (LLMs).⁸

The rapid succession of new technological developments is constantly changing the market dynamics in generative AI as it tends to evolve as rapidly as the underlying technology itself. Innovations in graphic processing units (GPUs) are likely to decrease the cost of computing

⁴ Reuters, TechTrends, “China leads world in generative AI adoption, underscoring country’s progress” (Jul. 10, 2024), <https://www.scmp.com/tech/tech-trends/article/3269866/china-leads-world-generative-ai-adoptionunderscoring-countrys-progress>.

⁵ Sequoia, “Generative AI’s Act Two” (2024), <https://www.sequoiacap.com/article/generative-ai-act-two/>; Duke Fuqua School of Business, “Explaining the T in Chat GPT” (Aug. 2023), <https://www.fuqua.duke.edu/duke-fuquainsights/explaining-%E2%80%98t%E2%80%99-chatgpt>; Benedict Evans, “AI and Everything Else” (Dec. 2023), <https://www.ben-evans.com/presentations/>.

⁶ Sequoia, “Generative AI’s Act Two” (2024), <https://www.sequoiacap.com/article/generative-ai-act-two/>; Duke Fuqua School of Business, “Explaining the T in Chat GPT” (Aug. 2023), <https://www.fuqua.duke.edu/duke-fuquainsights/explaining-%E2%80%98t%E2%80%99-chatgpt>; Benedict Evans, “AI and Everything Else” (Dec. 2023), <https://www.ben-evans.com/presentations/>.

⁷ NewsWire, “iAsk AI Search Engine Reaches 1 Million Searches Daily Just Months After Launch” (Dec. 2023), <https://www.newswire.com/news/iask-ai-search-engine-reaches-1-million-searches-daily-just-months-22194925>; SearchEngine, “Microsoft Bing adds new Deep Search generative AI feature” (Dec. 2023), <https://searchengineland.com/microsoft-bing-deep-search-435446>; The Verge, “Forbes now has its own AI search engine” (Oct. 2023), <https://www.theverge.com/2023/10/26/23933799/forbes-generative-ai-search-adelaide>.

⁸ Anissa Gardizy, The Information, “AI Laggard Intel Expands Effort to Help Companies Build ChatGPT-like Apps” (Oct. 2023), https://www.theinformation.com/articles/ai-laggard-intel-expands-effort-to-help-companiesbuild-chatgpt-like-apps?offer=rtssu-engagement-sept-23&utm_campaign=RTSU+-+Intel+ChatGPT&utm_content=2071&utm_medium=email&utm_source=cio&utm_term=1500; CNBC, “Claude AI can summarize text from PDFs for free. Here’s how to use it” (Oct. 20, 2023), <https://www.cnbc.com/2023/10/20/claude-ai-can-summarize-text-from-pdfs-for-free-heres-how-to-use-it.html>; TechCrunch, “Samsung unveils ChatGPT alternative Samsung Gauss that can generate text, code and images” (Nov. 2023), <https://techcrunch.com/2023/11/08/samsung-unveils-chatgpt-alternative-samsung-gauss-that-can-generatetext-code-and-images/>.

resources.⁹ The model size, number of parameters, and amount of data required to reach state-of-the-art capabilities are constantly changing. Due to their distinct characteristics and unlimited potential, foundational models will continue to evolve further in the future, catering to specific business or personal needs of users.

A recent report by Copenhagen Economics shows the dynamic competition present in the generative AI sector.¹⁰ New unicorn startups have been emerging in the sector, with 13 startups receiving a \$1 billion valuation as of May 2023.¹¹ Likewise, more than 250 foundational models have been developed since 2018 by 94 different companies,¹² with 57 percent of these models being available with an open license,¹³ which further promotes competition as it reduces the barriers to entry for new companies.

Further competition in the development of AI models has likewise yielded promising results for Small Language Models to compete with LLMs, which require fewer resources and data inputs, and offer more advanced querying techniques, resulting in overall steeply reduced costs for competitors to foundational LLM developers and downstream businesses alike.¹⁴ In a way, the best solution might not end up being the biggest LLM, but rather a smaller and more efficient model that requires fewer data inputs. These results, coupled with reduced costs for the development of AI models, strongly suggest that market factors such as input scarcity from hardware limitations are not creating significant barriers to entry for new entrants. Moreover, there is a high variety of different foundational models, and no model will meet every customer's need, allowing for higher competition to break into untapped markets.

Generative AI's disruptive nature brings forth the potential for competition in this market to flourish even more in the future. Progress in technology is driving down the cost and time required for building, training, and deploying foundational LLMs.¹⁵ In addition, the capacity to conveniently adapt a pre-existing model via fine-tuning is hastening the arrival of competitive models. AI vendors, including startups, are also gaining greater access to third-party models and tools, which offer tailored strategies for market entry, optimization of machine learning frameworks, and other resources. Competition in generative AI is dynamic and rapidly evolving. It is generally working well to deliver value, service, and choice to all types of customers. With that in mind, CCIA emphasizes that at this stage, any legislative or regulatory intervention to address any future competition concerns in the generative AI market would be premature and

⁹ See Ilay Chen, "Leveraging Spark 3 and NVIDIA's GPUs to Reduce Cloud Cost by up to 70% for Big Data Pipelines" Medium (Feb. 21, 2024),

<https://medium.com/paypal-tech/leveraging-spark-3-and-nvidias-gpus-to-reduce-cloud-cost-by-up-to-70-for-big-data-pipelines-e0bc02ec4f88>.

¹⁰ Paulo Rocha Abecasis, Federico De Michiel, Bruno Basalisco, Tuomas Haanperä, and Julie Iskandar, Copenhagen Economics, "Generative Artificial Intelligence: The Competitive Landscape" (Feb. 2024),

<https://copenhageneconomics.com/publication/generative-artificial-intelligence-competition/>.

¹¹ *Id.* at 15.

¹² *Id.*

¹³ Stanford University, "Stanford CRFM Ecosystem Graphs for FMs" (Apr. 29, 2024),

<https://crfm.stanford.edu/ecosystem-graphs/index.html?mode=table>.

¹⁴ *Id.*, at 24.

¹⁵ ARK Investment Management LLC, "Big Ideas 2023" (Jan. 31, 2023), at 20,

https://research.arkinvest.com/hubfs/1_Download_Files_ARKInvest/Big_Ideas/ARK%20Invest_013123_Presentation_Big%20Ideas%202023_Final.pdf.

could potentially stifle innovation in the generative AI sector and limit consumer choice. Moreover, overly burdensome regulation may make it difficult for future competition and innovation to flourish.

As noted by Assistant Attorney General Jonathan Kanter, antitrust laws already adapt to new and changing market realities, as competition enforcement principles “apply whether an innovation is powered by steam, by transistors or by reorganizing human thought through machine learning.”¹⁶

Existing law is poised to address anti-competitive concerns related to algorithmic pricing collusion.

The report on AI suggests that the Legislature consider several clarifications regarding how the Sherman and Cartwrights Acts might be applied to cases concerning algorithms and price fixing. However, while there are potential concerns associated with pricing algorithms, these are already addressed under existing state and federal antitrust law – collusion is illegal under existing law, and California’s Unfair Competition Law addresses pricing discrimination on commodities and services. Additionally, existing antitrust law prohibits competitors from colluding through third parties to set prices by improperly using sensitive information from rival competitors. It is also worth noting that this activity is considered illegal under existing law regardless of whether firms use an algorithm.

Pricing algorithms are designed to automate the pricing process and leverage data for better decision-making. Such algorithms are widely used across a variety of businesses in various industries allowing for the optimization of prices by analyzing factors such as cost, demand, and competitor pricing. These algorithms adjust pricing in real-time in response to market conditions. This automation results in businesses saving money, as manually managing pricing and inventory can be extremely costly and time-consuming.

In many cases, this dynamic pricing allows consumers to take advantage of lower and more competitive prices for various goods and services.¹⁷ For example, price comparison tools and dynamic pricing can help consumers find the best deals at any given time, saving them time and effort in searching for bargains. In addition, personalized pricing can lead to targeted discounts for consumers, allowing them to access better deals.

Although there have been some legislative attempts to address the competitive concerns of pricing algorithms,¹⁸ mainly regarding collusion, it is worth noting that this issue is already

¹⁶ Assistant Attorney General Jonathan Kanter, U.S. Department of Justice, Office of Public Affairs, Speech: “Assistant Attorney General Jonathan Kanter Delivers Remarks at the Promoting Competition in Artificial Intelligence Workshop” (May 30, 2024), <https://www.justice.gov/opa/speech/assistant-attorney-general-jonathankanter-delivers-remarks-promoting-competition>.

¹⁷ See Carla Vianna, “AI dynamic pricing use cases for tours and attractions” Xola (Jun. 13, 2024), <https://www.xola.com/articles/ai-dynamic-pricing-use-cases-for-tours-and-attractions/> (Walt Disney World’s transition to an algorithmic dynamic pricing structure in 2018 “encouraged guests to plan their trips well in advance or during less busy periods to benefit from lower prices”).

¹⁸ See, e.g., Congress, S.3686 “Preventing Algorithmic Collusion Act of 2024”, 118th Congress (2023-2024), <https://www.congress.gov/bill/118th-congress/senate-bill/3686/all-actions>; California Senate, SB 1154: “California

addressed and prohibited by current federal antitrust laws.¹⁹ There are several concerns with these proposals as they would impact a wide range of businesses and industries beyond the AI sector. Pricing algorithms carry many potential benefits for consumers and also allow businesses to more economically set prices in response to changes in supply and demand by avoiding manual pricing mechanisms. Although there are some theoretical risks of algorithms being used by competitors to collude, there are no specific examples of this occurring in real life. Hence, an *ex-ante* regulatory approach that seeks to address competitive concerns before they occur could potentially harm the U.S. AI market, reduce innovation, and strip American consumers of the real-world benefits that AI brings to different markets.

CCIA cautions against adopting a regulatory regime similar to that established under the European Union's Digital Markets Act and the actions of the United Kingdom's Digital Markets Unit.

The expert report on AI suggests that the Legislature consider enacting a digital-specific regulatory regime, while also noting that not everyone in the working group agrees with the need for a digital-specific regulatory regime.²⁰ CCIA agrees that a digital-specific regime is unnecessary and, moreover, is likely to produce harm to innovation and competition. It is important to identify and stop anticompetitive conduct without impairing or preventing normal competitive practices that ultimately result in lower prices, greater choice, or better quality for consumers. These considerations are inherently complex because courts have identified conduct that may weaken competition amongst rivals yet also benefit trading partners. Traditionally, federal and California state law have tackled this conundrum by relying on rigorous, evidence-based analysis using *ex-post* enforcement of antitrust rules. Under this framework, judges decide on the legality of conduct based on the evidence of the positive and negative effects of a business' practice. This approach is critical in ensuring that only relevant issues are considered, thereby avoiding social and political goals that are subject to volatility, and avoiding inappropriate antitrust actions that could harm competition and consumers.

CCIA cautions against pursuing regimes modeled after newer, far less rigorously tested *ex-ante* antitrust frameworks, as used in Europe, as a replacement for the *ex-post* tradition. Because the *ex-ante* approach does not rely as heavily on fact-driven, evidence-based analysis to guide a thorough assessment, it risks applying broad and sweeping bans that could prohibit procompetitive conduct when applied in the wrong context,²¹ with negative consequences for both consumers and workers. For example, *ex-ante* rules could focus merely on company size, which is not an assured predicate for anticompetitive conduct, and they may not consider other beneficial effects such as lower prices or streamlined provision of goods and services to the consumer.

Preventing Algorithmic Collusion Act of 2024" (2023-2024), https://digitaldemocracy.calmatters.org/bills/ca_202320240sb1154. See also CCIA, CCIA Comments on CA SB 1154 (Oppose) (2024), <https://ccianet.org/library/ccia-comments-on-ca-sb-1154-oppose/>.

¹⁹ Section 1 of the Sherman Act establishes that "Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is declared to be illegal."; Sherman Antitrust Act, 15 U.S. Code § 1, <https://www.law.cornell.edu/uscode/text/15/1>.

²⁰ *Supra* n. 2, at 9.

²¹ See Kay Jebelli, "The DMA's Missing Presumption of Innocence", *Truth on the Market* (Mar 5, 2024), <https://truthonthemarket.com/2024/03/05/the-dmas-missing-presumption-of-innocence/>.

As previously noted in CCIA's comments in response to the Single Firm Conduct working group report, CCIA is concerned that certain report recommendations could unintentionally harm competition and consumers.

The expert report on Artificial Intelligence suggests that the Commission might consider making recommendations to the Legislature aligned with those made in the Single Firm Conduct Working group report.²²

The suggestions made in that report appear to abandon the evidence-based approach that the authors themselves tout as being preferred. As previously noted, the *ex-post* framework that currently governs antitrust enforcement helps to ensure that judges carefully consider the evidence and follow the facts. We continue to encourage the Commission to review such suggestions with skepticism.²³

While CCIA primarily focuses on promoting competition in the technology sector, our experience informs us that sweeping regulations may impact the business community writ large. We strongly advise against adopting broad new policy changes that will likely lead to unintended consequences for all business sectors, including the tech sector that has grown to be a huge economic driver in California.

As CCIA has previously noted,²⁴ courts have continued to rely on the *ex-post* antitrust framework even in the midst of the rapidly evolving technology space. As also evidenced in the D.C. Circuit's landmark 2001 ruling holding Microsoft liable for unlawful monopolization, courts have persisted in applying the test for illegal monopolization, determining a methodological way to identify anticompetitive conduct, employing the "rule of reason" balancing analysis, and deciding whether illegal monopolization has harmed competitors with "no procompetitive justification."²⁵ Courts have relied on this framework and precedent to judge anticompetitive enforcement actions in other dynamic markets. Thus, this analytical framework has proven repeatedly that it is well-suited to protect consumers as well as the ability of firms to innovate to improve their products.

Senior FTC officials have themselves endorsed the framework established by the 2001 *Microsoft* decision. For example, in 2006, then FTC Chair Deborah Platt Majoras noted that the framework "incorporates principles for which there is wide consensus" to create a "sensible 'weighted' balancing approach." Majoras also observed that the court "did not attempt to substitute ex post facto its judgment for that of business judgments that were made *ex-ante*." This ensured that consumers would be protected from anticompetitive conduct while avoiding chilling incentives to innovate that would arise from the prospect of an *ex-post* analysis with

²² *Supra* n. 2, at 6.

²³ CCIA Letter to California Law Revision Commission Re: Single Firm Conduct Report, (May 1, 2024), <https://ccianet.org/library/ccia-letter-to-california-law-revision-commission-re-single-firm-conduct-report/>.

²⁴ *The Enduring Potency of the Microsoft Decision*, CCIA (Apr. 2020), https://ccianet.org/wp-content/uploads/2020/04/CCIA_Paper_MSFT_Decision_8.5x11-1.pdf.

²⁵ *U.S. v. Microsoft Corp.*, 253 F. 3d 34, 72 (D.C. Cir. 2001).



the benefit of hindsight. Majoras praised the *Microsoft* court’s painstaking analysis of the facts, “taking care to ensure not to chill procompetitive behavior.”²⁶

For these reasons, we urge the Commission not to advance any recommendations that would dilute the current *ex-post* framework that has consistently guided sound decisions and allowed competition to flourish while addressing anticompetitive behavior. This helps ensure that antitrust enforcement remains based on evidence and facts.

* * * * *

We appreciate your consideration of these comments. We look forward to continuing to participate in the Commission’s ongoing study process and hope the Commission will consider CCIA as a resource as these discussions progress.

Sincerely,

Khara Boender
State Policy Director
Computer & Communications Industry Association

²⁶ Deborah Platt Majoras, Chairman, Federal Trade Commission, *The Consumer Reigns: Using Section 2 to Ensure a “Competitive Kingdom”* (June 20, 2006), <https://www.justice.gov/atr/deborah-platt-majoras-remarks>.



AI and Competition

Report to the California
Law Review Commission:
Antitrust Law Study B-750



- The report addresses the impact of AI on competition within the framework of digital ecosystems. These ecosystems often grow through acquisition rather than organic growth.
- The digital ecosystems' massive size, expertise, and scale tend to give them a head start with respect to AI and AI development, which can pose a challenge to antitrust enforcement.
- The Working Group has identified three areas worthy of discussion: algorithmic collusion, unilateral conduct, and consolidation in markets where AI plays a significant role (either in development of AI or use of AI products)
- While the Working Group could not come to a consensus on recommendations, there are policy considerations and legal frameworks, such as a potential digital sector regulator, that are discussed throughout the report.

• Algorithmic Collusion

- **REALPAGE:** The use of RealPage's revenue management software was challenged for facilitating price-fixing in the multi-family apartment industry. The Software aggregated sensitive pricing data and made recommendations for rental rates.
- Similar cases are underway in various industries, such as hospitality and healthcare, where algorithmic software has been alleged to enable price-fixing among competitors.
- Legislative developments focus on proposed legislation that would demand greater transparency about the use of pricing algorithms or their use altogether.



Restrictive Unilateral Conduct

- AI could be used unilaterally by monopolists to engage in anticompetitive practices, such as self-preferencing, bundling, and predatory pricing.
-
- Many of the concerns with AI and unilateral conduct could be lessened if the Legislature adopts the suggestion made by the Single Firm Working Group
 - The Working Group recommends that the Legislature explicitly reject the federal jurisprudence under unilateral conduct.

Consolidation Involving Cloud and AI

Cloud computing and AI are deeply interconnected and have seen rapid consolidation through acquisitions. The global cloud computing market is expected to grow significantly, with Amazon Web Services, Microsoft Azure, and Google Cloud dominating the market.



AI-related mergers and acquisitions need close monitoring, as many mergers in this area have gone unchallenged so far, with some investigations ongoing. This unchecked consolidation is leading to increased market concentration.





Considering a California Digital Regulator

- The report proposes the possibility of creating a California-specific regulatory regime for the digital sector, modeled after European approaches like the EU's Digital Markets Act.
- Such a regulator would focus on preventing anticompetitive behavior in digital platforms, including providing access to third-party developers and ensuring data portability.
- A potential framework for regulation could involve market investigations to address entrenched market power and develop solutions for competition issues.

Prescription for Disaster: The Impact of PBMs on Patient Health and Pharmacy Viability

Eliminating Anticompetitive PBM Practices Are Free Market Reforms

Forbes

PBMs control the list of approved medicines (i.e., the formularies) that determine which treatments patients can access. Due to this control doctors cannot base their prescriptions solely on the patients' medical needs, they must account for the drug formulary when making treatment decisions.

Pharmacy Benefit Managers Expose Patients to Negative Health Outcomes, GHLF Updated Studies Shows

The Joblin Globe

All studies exposed concerning trends in pharmacy benefit manager (PBM) formulary exclusions that prioritize more profitable drugs rather than those originally prescribed — putting profits over patients' well-being and underscoring the need to enhance transparency and accountability in health care,” said lead author Robert Popovian, PharmD, MS, Chief Science Policy Officer at GHLF, Senior Health Policy Fellow at the Progressive Policy Institute, and Visiting Health Policy Fellow at the Pioneer Institute.

PBM Reforms Would Strengthen Competition Among Health Insurers

The Daily Star

Pending bipartisan legislation in the House and the Senate would rein in these “pharmacy benefit managers” and strengthen competition among health insurers. The big winners will be patients, who could save billions of dollars at the pharmacy.

Historical Perspective

The original intent of Pharmacy Benefit Managers (PBMs) was to:

- Reduce the cost of prescription drugs for health plans/insurers.
- Assist insurers and employers in managing prescription drug benefit programs.

PBMs have evolved into much more complex organizations including establishing their own specialty, mail-order and community pharmacies and controlling every aspect of a prescription drug benefit offered to those with health insurance.

PBM Influence

- Pharmacy Benefit Managers largely operate in the shadows of the healthcare system.
- Tremendous impact on U.S. healthcare decision-making, vertical integration has only increased their profits and influence.
- The three largest PBMs cover more than 180 million lives, or roughly 78% of the U.S. market.
- These PBMs have become so profitable that they are now among the Fortune 25 companies – ranked higher than the drug manufacturers whose prices they had promised to control.



PBM Influence

Vertical Business Relationships Among Insurers, PBMs, Specialty Pharmacies, and Providers, 2022



1. In September 2022, CVS Health announced its acquisition of Signify Health. The transaction is expected to close in 2023.

2. Since January 2021, Prime's Blue Cross and Blue Shield plans have had the option to use Express Scripts or AllianceRx Walgreens Prime for mail and specialty pharmacy services. On Dec. 31, 2021, Walgreens purchased Prime Therapeutics' 45% ownership interest in AllianceRx Walgreens Prime, so this business has no PBM ownership in 2022. Effective June 2022, the company has been known as AllianceRx Walgreens Pharmacy.

3. In 2021, Centene has announced its intention to consolidate all PBM operations onto a single platform and outsource its PBM operations to an external company.

4. In 2021, Centene sold a majority stake in its U.S. Medical Management to a group of private equity firms.

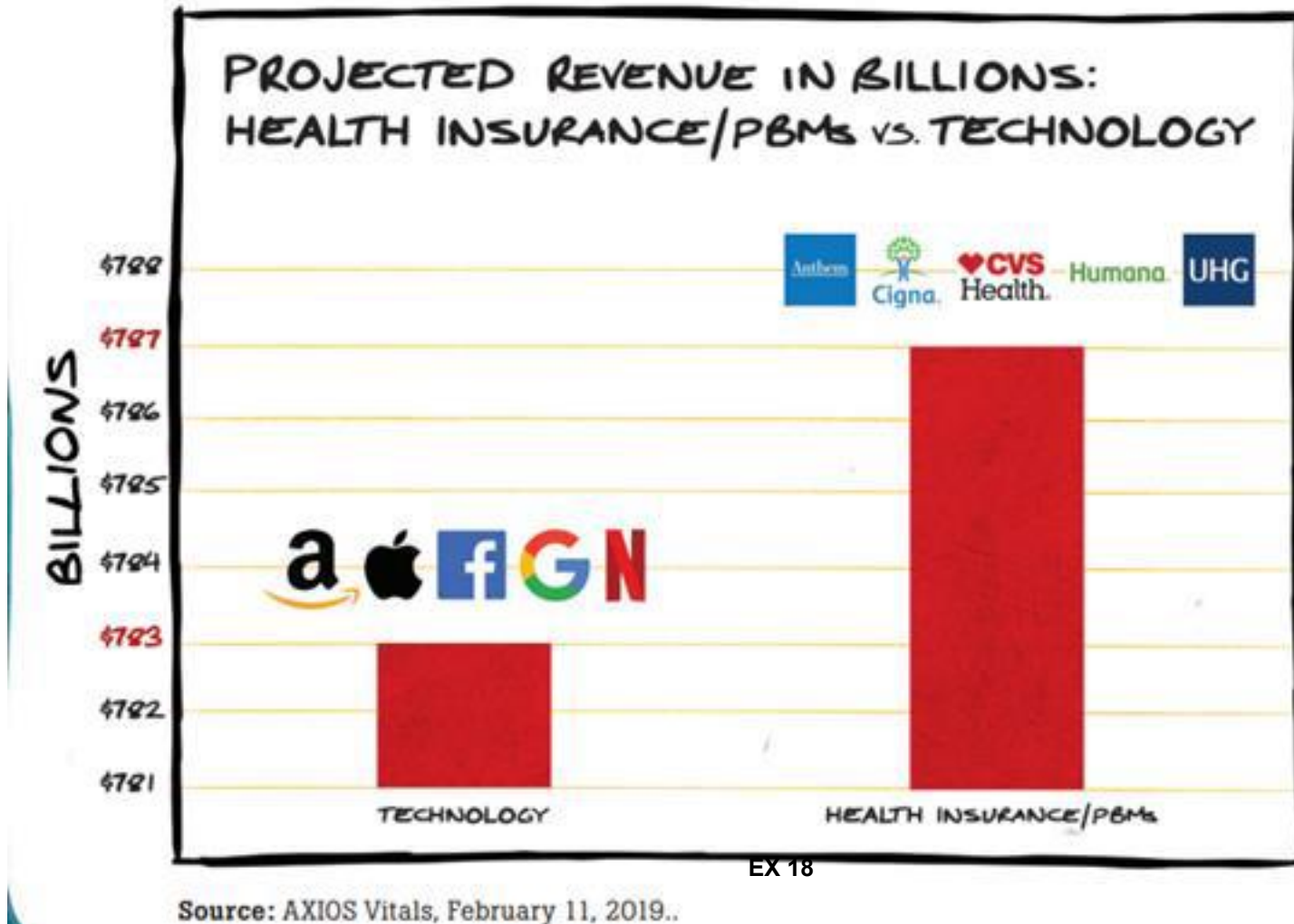
5. Since 2020, Prime has sourced formulary rebates via Ascent Health Services. In 2021, Humana began sourcing formulary rebates via Ascent Health Services for its commercial plans.

6. Cigna also partners with providers via its Cigna Collaborative Care program.

7. In 2022, Humana announced an agreement to divest its majority interest in Kindred at Home's Hospice and Personal Care Divisions to Clayton, Dubilier & Rice. In 2022, Kindred at Home was rebranded as CenterWell Home Health.

Source: *The 2022 Economic Report on U.S. Pharmacies and Pharmacy Benefit Managers*, Exhibit 212. Companies are listed alphabetically by insurer name. Published on *Drug Channels* (www.DrugChannels.net) on October 13, 2022.

PBM Profit Over Patients



The Problem

Lack of transparency in how they operate.

- Are they truly managing costs for payor or consumers?
- Are they using their control of the prescription drug benefit to prioritize their own profit?
- Unlike every other individual and entity in healthcare, PBMs are not regulated

PBMs are involved in all aspects of a prescription drug program

- Negotiating rebates with drug manufacturers on behalf of PBM customers (health plans/insurers and self-insured entities).
- Constructing and maintaining formularies on behalf of their customers.
- Contracting with pharmacists for inclusion in provider networks.
- Dispensing drugs through mail order and "specialty pharmacy" operations.

PHYSICIANS ARE REGULATED.

NURSES ARE REGULATED.

PHARMACISTS ARE REGULATED.

PBMs ARE NOT REGULATED.

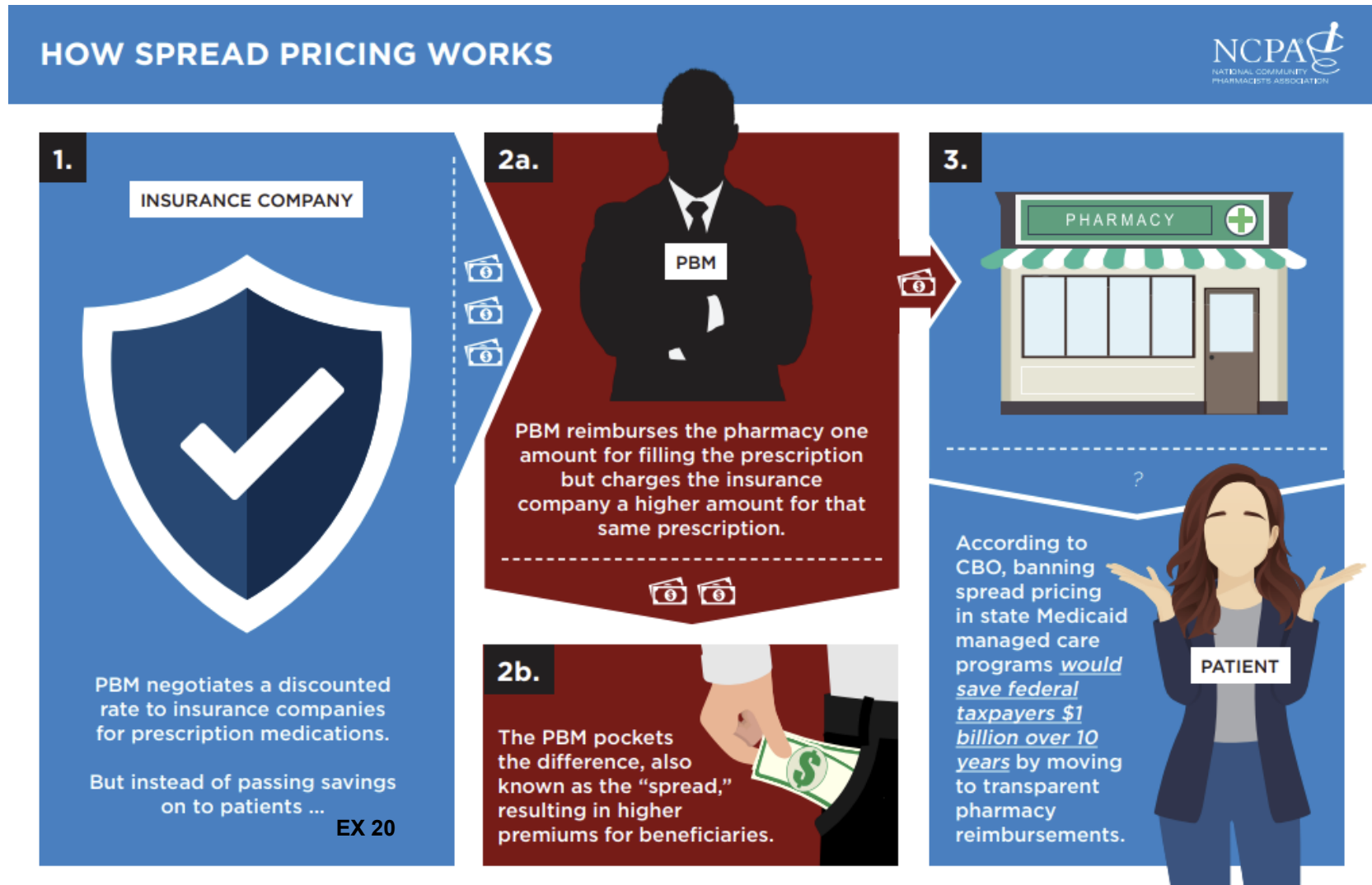


Why are healthcare providers regulated when **the companies that have the final say on what medications we have access to are NOT regulated?**

Learn about PBMs

Leveraging Their Role For Their Benefit

- Spread Pricing: PBMs charge the health plan a higher cost than what it pays to the pharmacy, which can lead to higher costs for the plan sponsor, which in turn can increase premiums and co-pays for patients.



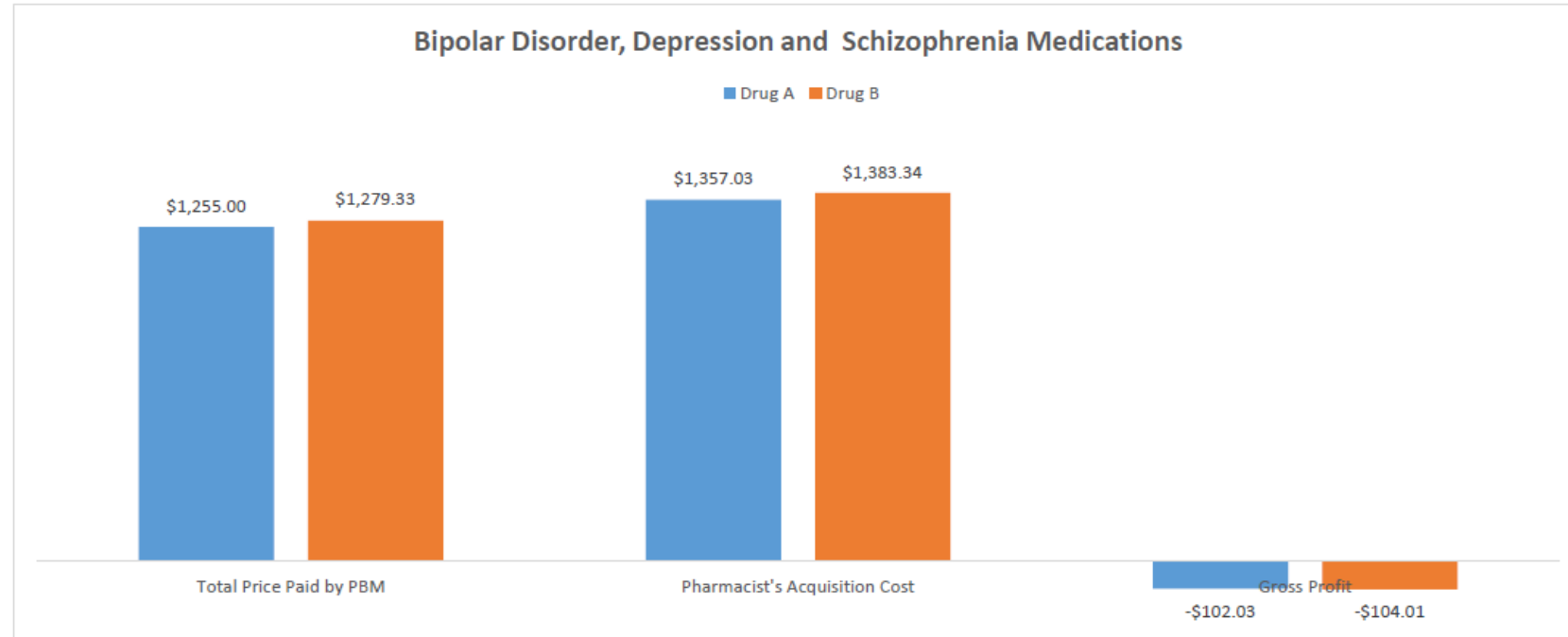


Leveraging Their Role For Their Benefit

- Rebate Pumping: PBMs favoring higher-cost drugs on a formulary because the PBM can demand a higher rebate, which they retain as profit.
- Rebate retention: PBMs retain a portion of the drug manufacturer rebate as profit instead of returning full amount to the consumer or health plan.
- Claw-backs: After a prescription is filled, PBMs retroactively recoup the difference between a patient's copay and the actual price of a drug when the copay amount is higher. *It is important to note that the PBMs require a pharmacy to collect a copay from a patient that is set by the PBM. If the patient copay imposed by the PBM is higher than the ultimate reimbursement to the pharmacy, the PBM claws back the excess copay from the pharmacy, keeping it as a profit.*

Leveraging Their Role For Their Benefit

- Reimbursement:
 - Reimbursing PBM affiliated/owned pharmacies more than non-affiliated pharmacies for the same medication.
 - Reimbursing independent pharmacies below drug acquisition cost and the cost to dispense regardless of the health plan or program

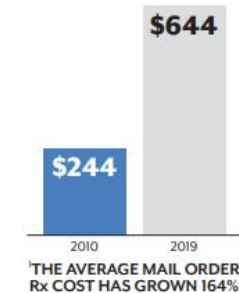
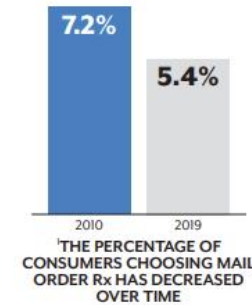


Leveraging Their Role For Their Benefit

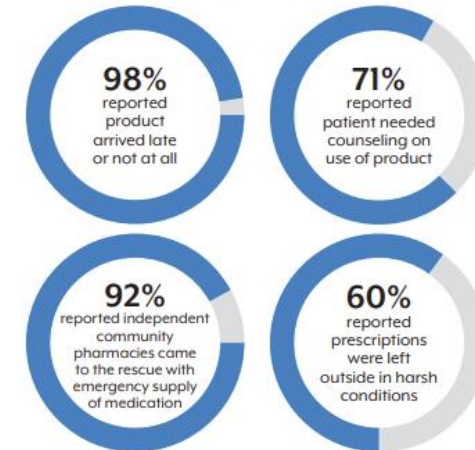
- Patient Steering: PBMs require patients to transfer prescriptions to the PBM-owned mail-order or community pharmacies or the consumer faces higher copay amounts for their medications.

NCPA **The Costs of Mail Order Rx**

Consumers, employers, and public health officials should consider the potential risks before they allow health insurance companies to steer patients into mail order.



PHARMACISTS REPORT PATIENT ISSUES WITH MAIL ORDER²



³Between 59°-77°F is the temperature recommended to store most medications, but mailbox temperatures may exceed 150°F in summer!



WASTE NOT WANT NOT⁴

\$3,166.87 in mail order waste. "A customer brought in a sack full ... her husband had passed away, and wanted us to donate the medications for someone else to use. Unfortunately we couldn't."

One patient had six months over-supply due to 90-day filling and therapy changes that cost approximately \$4,000.

Tricare⁵

THREE STRIKES AND YOU'RE OUT!

Active military and veterans who choose a local pharmacy instead of mail order three times are then responsible to pay 100% of the cost for many commonly used drugs!

Our military men and women and military veterans help keep our country free. **Yet their own freedom to choose their own pharmacy is limited when it comes to their prescription drug benefit.**

California is Not Leading when it Comes to PBM Reform





State Actions

California is Lagging Behind other States in Addressing Unfair Business Practices of PBMs, such as:

- Patient steering
- Audits
- Clawbacks
- Reimbursement
- Spread pricing

PBM practices take advantage of states, who rely on PBMs to manage their prescription drug programs. Several states have identified major problems – some have taken action:



New Jersey captured **\$2.5 billion** in prescription drug savings by creating a technology-enabled competitive bidding process (a reverse auction) for selecting the state PBM.



A **Florida** state audit found that PBM markups and fees cost the Medicaid an excess of **\$113 million** in 2020 – nearly \$90 billion in spread costs.



In **Kentucky**, PBMs kept more than **\$123 million** in spread – an increase of nearly 13% in one year alone.



Maryland banned spread pricing after finding PBMs pocketed a “spread” of **\$72 million annually**.



Mississippi reached a **\$55.5 million** settlement agreement after finding a PBM had overcharged the state Medicaid program for pharmacy benefits.



In **Ohio**, PBMs took a spread of more than **\$240 million** in one year – nearly **4 times as much as** the previously reported average spread across all drugs.



In just four years, PBM costs in the **Pennsylvania** Medicaid program more than doubled from **\$1.4 billion to \$2.86 billion**



Currently 25 states require licensure of pharmacy benefits managers

- Alabama
- Arkansas
- Georgia
- Indiana
- Kansas
- Louisiana
- Maine
- Montana
- New Jersey
- New Mexico
- Nebraska
- Michigan
- Minnesota
- Mississippi
- Utah
- North Dakota
- Virginia
- West Virginia
- Wisconsin
- Wyoming
- Oklahoma
- South Carolina
- South Dakota
- Tennessee
- New York



Activity at the Federal Level

There are currently 25 bills in Congress that are focused on PBM Reform to prohibit PBMs from charging an insurance plan a different amount than it reimburses the pharmacy, clawing back reimbursement payments, and requires transparency about prices, reimbursements, fees, and markups.

The Federal Trade Commission opened an investigation into six large PBMs: CVS Caremark, Express Scripts, OptumRx, Humana, Prime Therapeutics, and MedImpact Healthcare Systems.



Federal Trade Commission

A Federal Trade Commission interim report and a US Congressional oversight committee found that PBM unfair business practices of PBMs contribute to rising medication costs and the closure of community pharmacies. Some of the findings are as follows:

- The three largest PBMs have used their position as middlemen and integration with health insurers, pharmacies, providers, and recently manufacturers, to enact anticompetitive policies and protect their bottom line.
 - PBMs frequently tout the savings they provide for payers and patients through negotiation, drug utilization programs, and spread pricing, even though evidence indicates that these schemes often increase costs for patients and payers.
 - The largest PBMs force drug manufacturers to pay rebates in exchange for the manufacturers' drugs to be placed in a favorable tier on a PBM's formulary, making it difficult for competing, lower-priced prescriptions (often generics or biosimilars) to get on formularies.
 - As many states and the federal government weigh and implement PBM reforms, the three largest PBMs have begun creating foreign corporate entities and moving certain operations abroad to avoid transparency and proposed reforms.
 - The largest PBMs' use of tools such as prior authorizations, fail first policies, and formulary manipulations have significant detrimental impacts on Americans' health outcomes.
- EX 28**
- The anti-competitive policies of the largest PBMs have cost taxpayers and reduced patient choice.



Pharmacy Closures

Since December 2023, 411 community pharmacies in California Closed. Pharmacy closures can significantly harm communities in several ways:

- Access to Medications
- Increased Travel Burden
- Healthcare Disruption
- Economic Impact
- Health Disparities
- Medication Adherence

Overall, the closure of a pharmacy can ripple through a community, affecting health, economy, and access to care.

Questions?

WHAT'S DRIVING THE AFFORDABILITY CRISIS IN HEALTHCARE?

October 10, 2024
California Law Review Commission

Katherine Gudiksen

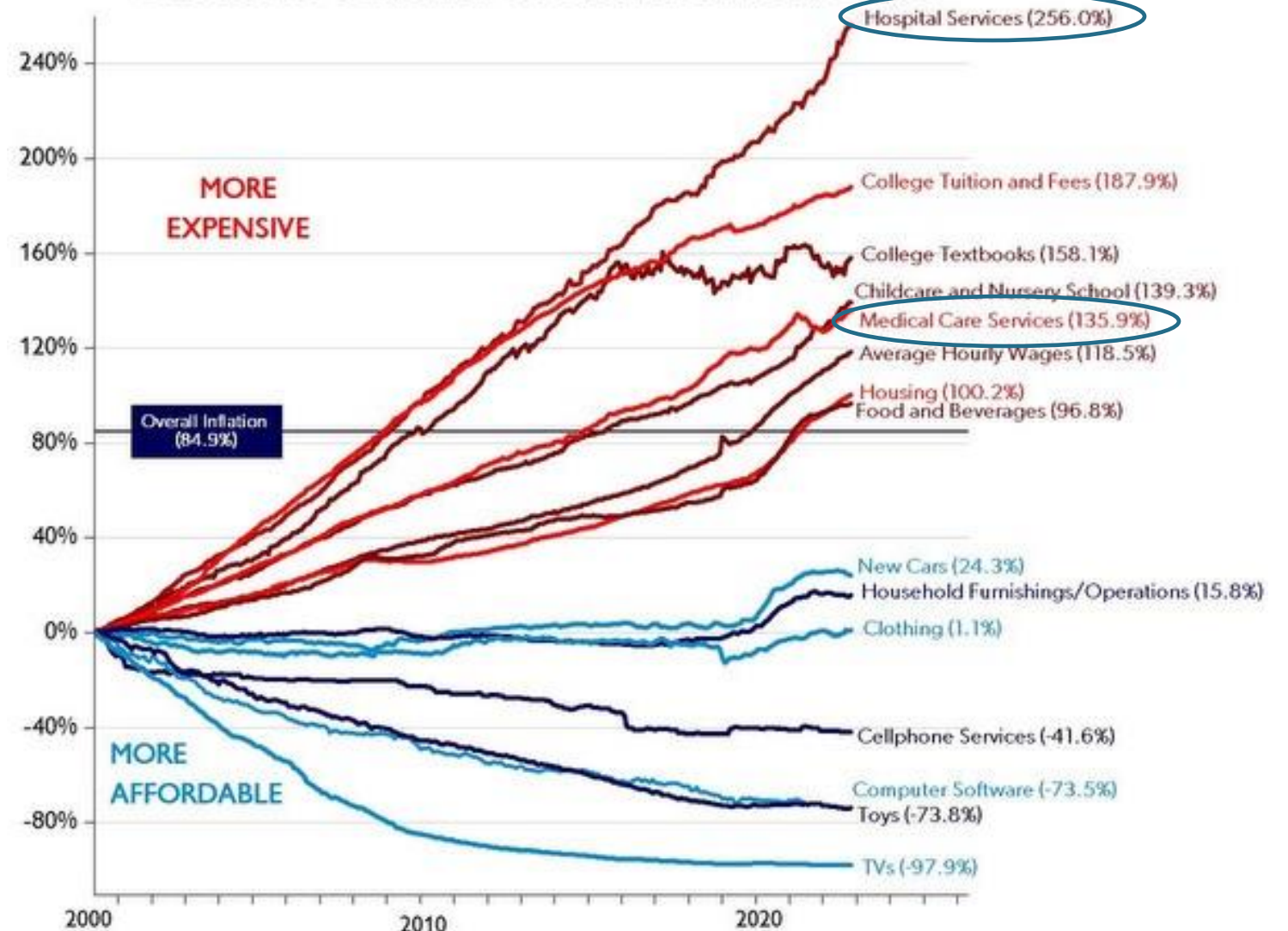
THE SOURCE
ON HEALTHCARE PRICE & COMPETITION



UC Law San Francisco

COST OF HEALTH
CARE INCREASED
MUCH FASTER
THAN INFLATION

Price Changes: January 2000 to June 2024
Selected US Consumer Goods and Services, Wages

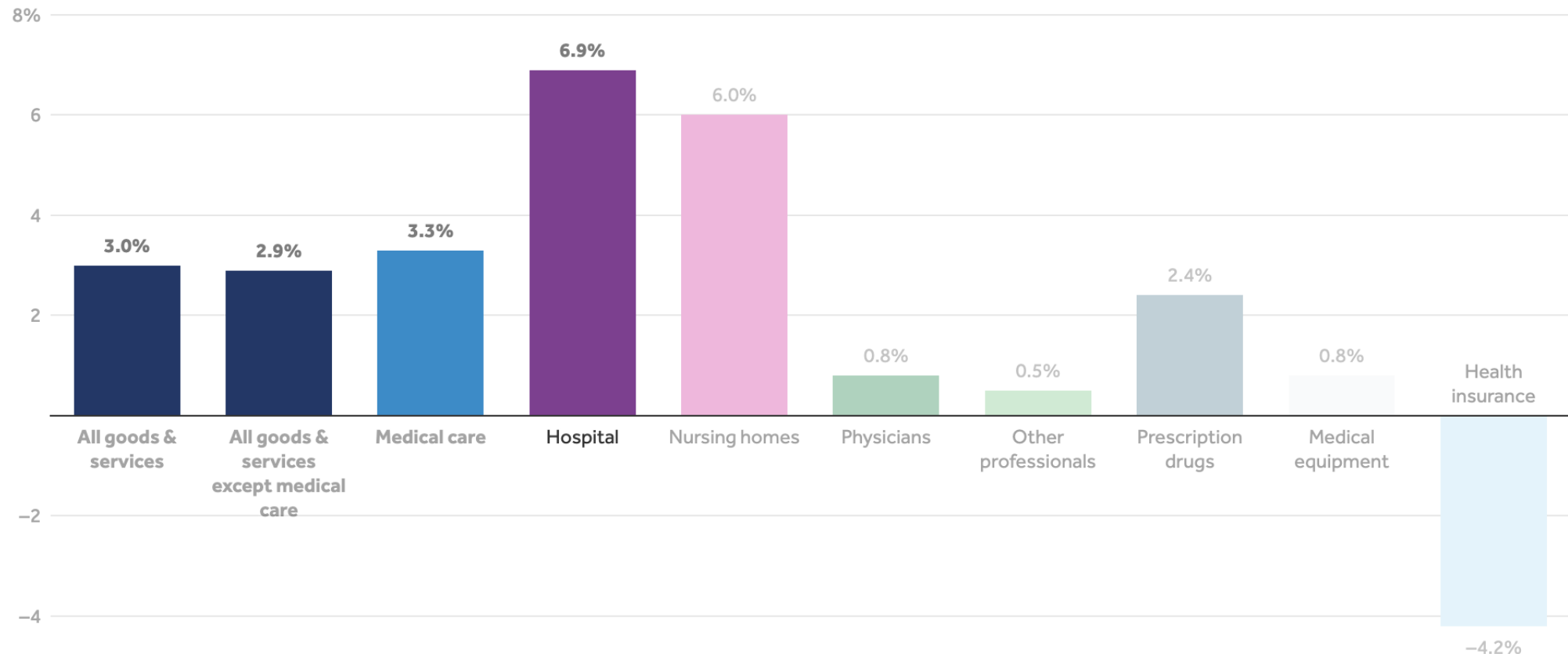


EX 32

Source: Bureau of Labor Statistics

COST INCREASES ARE PARTICULARLY HIGH FOR HOSPITALS AND NURSING HOMES

Annual percent change in Consumer Price Index for All Urban Consumers (CPI-U) for medical care, by category, June 2023 - June 2024



Source: KFF Analysis of Bureau of Labor Statistics (BLS) Consumer Price Index (CPI) data: <https://www.healthsystemtracker.org/brief/how-does-medical-inflation-compare-to-inflation-in-the-rest-of-the-economy>

CONSOLIDATION: THE PRIMARY DRIVER OF HIGH HOSPITAL PRICES FOR THE PRIVATELY INSURED

- Hospitals that are monopolies (no competitors within 15 miles) have prices that are **12% higher** than in markets with 4 or more hospitals (Cooper 2015)
- Studies of mergers of two hospitals in the same market found that **prices increased between 3 and 9% in the year following the merger** (with some studies finding 20+% increases)

(Dafny, 2009; Haas-Wilson & Garmon, 2011; Tenn, 2011; Gaynor & Town, 2012, Gaynor 2018, Dafny, Ho, and Lee 2016)

- Prices increased at **acquired hospital, acquiring hospital system, and at bystander hospitals** in the same market
- Newer research finds that **prices increase 3-5%** even when the merging hospitals are in different markets

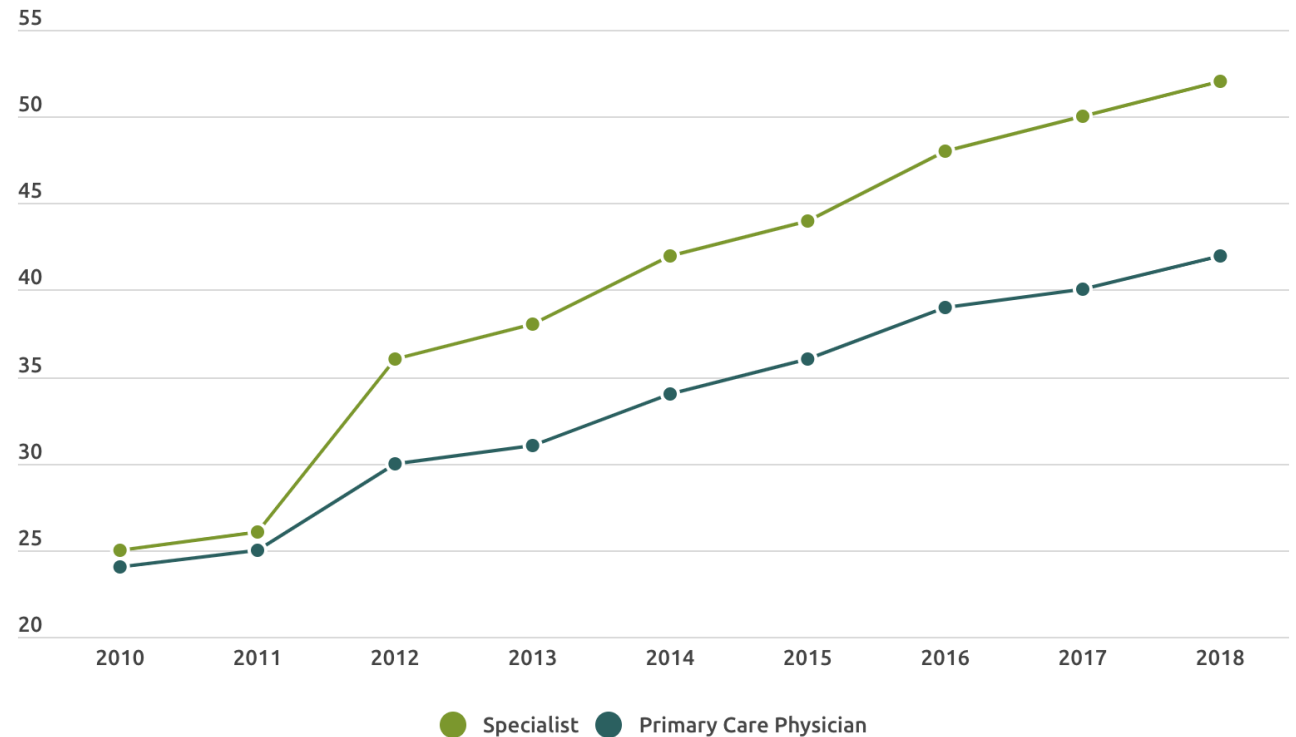
(Dafny, Ho, and Lee 2019; Lewis and Pflum 2017; Arnold et al. 2024)

- In 2020, the Medicare Payment Advisory Commission (MedPAC) concluded that the “**preponderance of evidence suggests that hospital consolidation leads to higher prices.**”

VERTICAL CONSOLIDATION ALSO RAISES PRICES

- More than **half of US physicians** are now employed by a hospital or health system, and **another 23 percent** are employed by other corporate owners like private equity
- Research shows that **prices increase post-merger** with a health system
 - For the hospital itself (Baker, Bundorf, Kessler, 2014)
 - For physicians, by 12-33.5% depending on specialty (Capps, Dranove, & Ody, 2018, Koch and Ulrick, 2017)
 - For clinics, by 32-47% within 4 years (Carlin, Feldman & Dowd, 2017)
- With **no demonstrated quality improvements** (McWilliams et al. 2013; Neprash et al. 2015; Short and Ho, 2019)
- Hospital ownership can alter referral patterns of physicians, including **increased inappropriate imaging and lab services** (Whaley et al. 2021; Young et al. 2021)

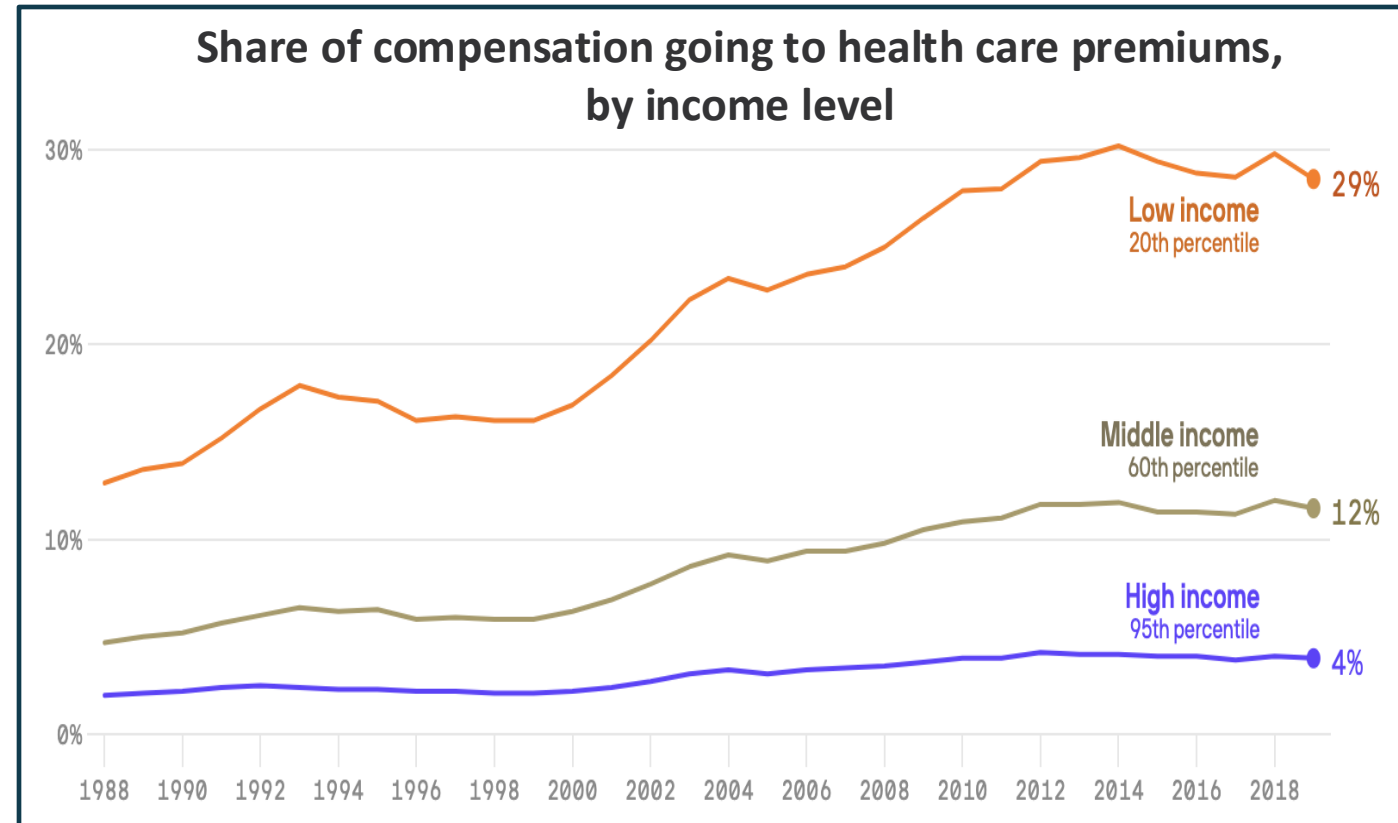
Percentage of Physicians in Practices Owned by a Hospital/Health System in California, by Type of Physician, 2010–2018



Source: KFF Analysis of Bureau of Labor Statistics (BLS) Consumer Price Index (CPI) data:
<https://www.healthsystemtracker.org/brief/how-does-medical-inflation-compare-to-inflation-in-the-rest-of-the-economy>

IMPACT OF M&A ON AMERICAN EMPLOYERS AND WORKERS

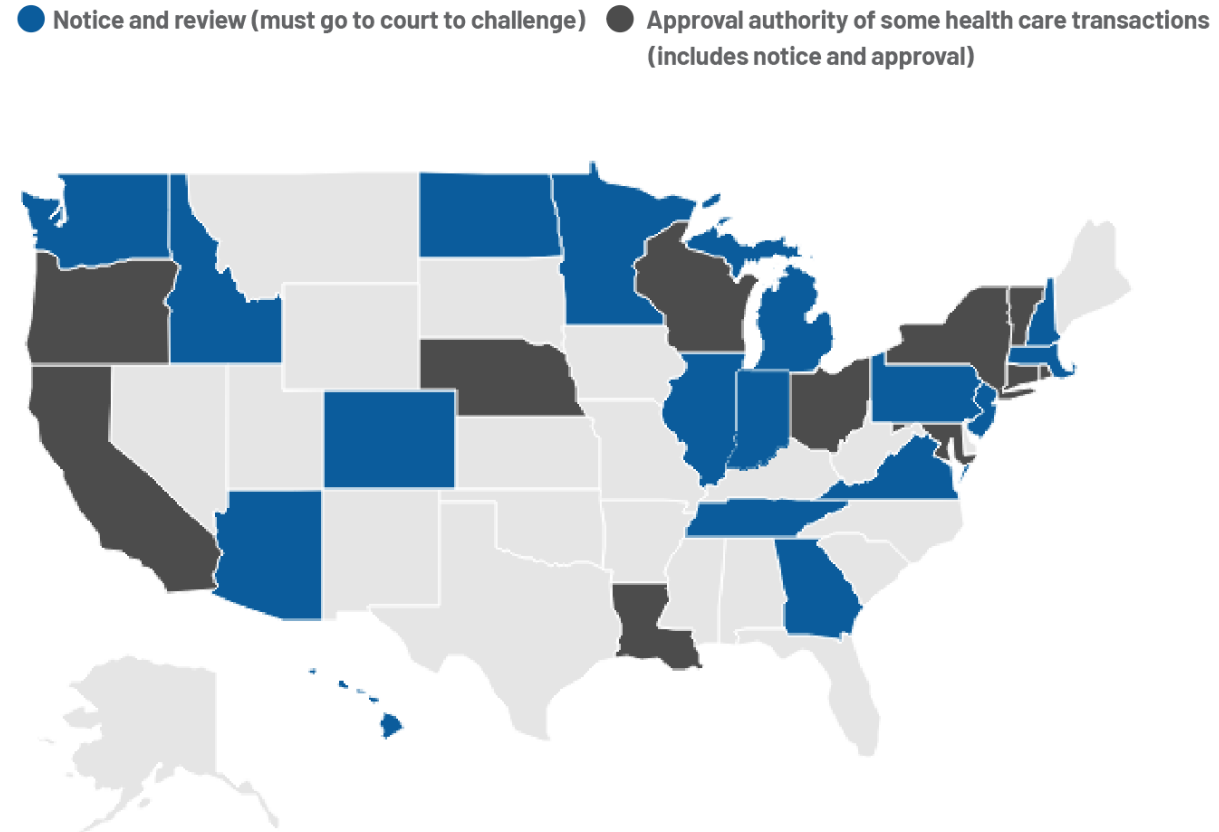
- Insurance premiums have much lower variation than wages, so **rising insurance premiums serve as a “head tax”** that disadvantages low to middle income Americans
- The average American family **lost \$125,340 in wages** due to rising health care costs between 1988 to 2019 (Hager, Emanuel, and Mozaffarian 2024)
- Brot-Goldberg et al. estimate that a hospital merger that raises prices by 5% results in \$32 million in lost wages and 203 job losses



Source: <https://www.axios.com/2024/01/17/health-insurance-premiums-wages>

KEY TOOL TO MITIGATING MARKET POWER: ANTITRUST OVERSIGHT

- Increased Attention and Oversight at the Federal Level
 - Biden Executive Order on Promoting Competition
 - FTC/DOJ released new 2023 Merger Guidelines
 - BUT of the 1,164 mergers in the last 20 years, the FTC has challenged only 13 (<1%) and only 50% met the threshold to even be reported to the FTC/DOJ (Brot-Goldberg 2024)
- Many states, including California, adopted new laws increasing health care merger



Source: Fuse Brown and Gudiksen, [Models for Enhanced Health Care Market Oversight — State Attorneys General, Health Departments, and Independent Oversight Entities](#), Milbank Memorial Fund, Jan 25, 2024.

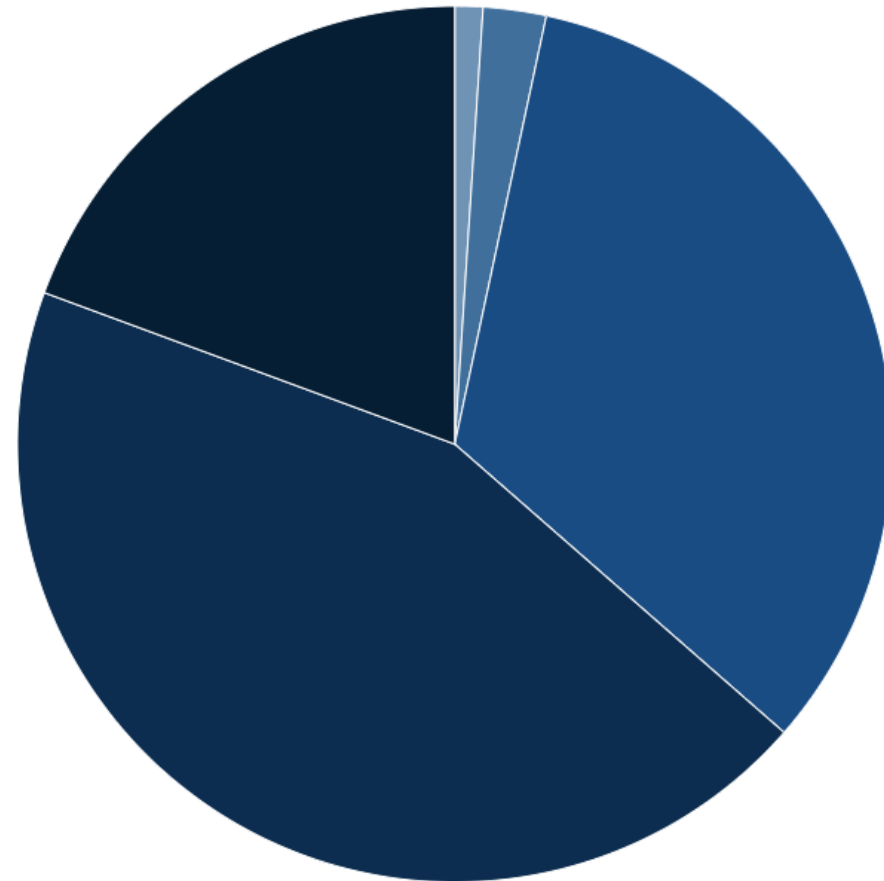


UNFORTUNATELY, IN MANY MARKETS...

NEARLY ALL U.S. METROPOLITAN AREAS HAVE “HIGHLY CONCENTRATED” HOSPITAL MARKETS

Nearly all (97% of) metropolitan areas had highly concentrated markets for inpatient hospital care in 2022 based on thresholds used in current antitrust guidelines

- Not concentrated (1%)
- Moderately concentrated (2%)
- Highly concentrated, $1,800 < \text{HHI} < 5,000$ (33%)
- Highly concentrated, $5,000 \leq \text{HHI} < 10,000$ (44%)
- Highly concentrated, $\text{HHI} = 10,000$ (monopoly) (19%)



Source: KFF Analysis of RAND Hospital Data, 2022 in Godwin et al. [One or Two Health Systems Controlled the Entire One or Two Health Systems Controlled the Entire Market for Inpatient Hospital Care in Nearly Half of Metropolitan Areas in 2022](#), KFF, Oct 1, 2024.

OPTIONS FOR STATE ACTION

Strengthen Oversight of Consolidation

- Pre-merger Notification and Review of Health Care Transactions
- Additional oversight of transactions involving private equity

Promote Competition and Improve Market Function

- **Add an abusive dominance standard for antitrust enforcement**
- Improve Price and Ownership Transparency
- Address Anticompetitive Contracting Practices
- Set minimum requirements for non-profit tax status
- Expand site-neutral payment requirements
- Invest in primary care and rural facilities

Price Limitations

- Price caps for state employee benefit programs
- Cost-growth Benchmarks
- Hospital Global Budgets
- Rates Caps on Services Provided Out-of-network

CONSIDERATIONS & RECOMMENDATIONS

- Consolidation has led to unaffordable increases in health care prices
 - Increased prices are passed on as increased premium prices for employer-sponsored insurance
- Increases in health care costs disproportionately hurts low- and middle-income Americans
 - Serves as a “head tax” that increases unemployment
 - Decreases tax revenue and increases gov’t spending on unemployment benefits
- State and federal governments are increasing merger oversight, but impact may only prevent additional harms
- Given the existing highly consolidated markets, states need to find other ways to reduce the negative impacts of healthcare consolidation, including considering an “abuse of dominance” standard.

Thank You!

Katie Gudiksen: gudiksenkatherine@uclawsf.edu

The Source on HealthCare Price and Competition:
<https://sourceonhealthcare.org>

Improving California's Antitrust Laws

Meeting of the CLRC

Gene Burrus
Global Policy Counsel, CAF
Founder, Burrus Competition Strategies

October 10, 2024

Who is CAF?

- **Founded in 2020**
- **Worldwide organization with more than 80 members, representing thousands of independent developers of apps for mobile devices**
- **Advocating around the world for legislation and enforcement to create a fair and level playing field for competition on and with mobile ecosystems and to constrain the power of mobile gatekeepers**
- **Gene Burrus – Global Policy Counsel**
 - **On the forefront of tech antitrust/unilateral conduct issues since 2002**

Key Questions

Potential Improvements to California's Antitrust Laws

Unilateral Conduct

- Short answer - YES

Tech Specific Provisions

- Short Answer – ALSO YES

EX 45

Why State-Level Unilateral Conduct?

- Importance to California businesses and consumers
 - Silicon Valley advocated for and owes much to monopolization enforcement against Microsoft 25-30 years ago
- Action against the then dominant platform unleashed the innovation and business success of Silicon Valley
- Too Important to California to just rely on Federal statutes, and increasingly dismissive Federal courts
 - Important to maintain policy independence
 - Consider adoption of “abuse of dominance” standard
 - Danger of becoming vassal state to world’s largest most powerful companies

Tech Specific Provisions?

- Issues, powers, and abuses emanating from multi-sided digital platforms protected by network effects are well studied and understood
 - Biggest tech platforms control more than just price and output in a particular market
 - Open – dominate – close pattern repeated
 - Lack of (and delay in) enforcement has led to companies more powerful than governments
- Proven approaches and success in intervention
 - Silicon Valley benefitted greatly from intervention with Microsoft 30 years ago
- Traditional enforcement of Section 2 has proven to be either too long or too uncertain to constrain behavior of dominant firms
 - Microsoft cases took a decade – too late for Sun, Netscape, Real Networks
 - Google search cases have been going for more than a decade, still not fully resolved
 - Uncertainty of Section 2 enforcement means the most dominant and powerful companies in the world feel no serious constraint on their conduct

Tech Specific Provisions?

- **Benefits to California businesses and consumers**
 - A level playing field with clear rules invites innovation and investment
 - Dominant firms free to innovate, invest, and compete, just not use their dominance to compete unfairly or exclude or hamper rivals
 - Consumers get lower prices, innovations, and new businesses from which to choose
- **Quicker and more efficient path to reining in market power harmful to both businesses and consumers**
 - Enforcers don't have to endlessly litigate and prove that water is wet

Possible Templates

US Federal

- Open App Markets Act
- American Innovation and Choice Online Act
- Both garnered wide bipartisan support in Senate Judiciary Committee

EU

- Digital Markets Act
- List of prohibitions and requirements for digital 'gatekeepers'
- Now in force, early enforcement proceedings against defiant 'gatekeepers'

UK

- Digital Markets, Competition, and Consumer Bill
- Provides powers to regulator to craft conduct requirements specific to firms with 'strategic market status'
- Passed this year, enforcement in 2025

Thank You

- The Coalition for App Fairness represents a wide variety of independent app developers whose businesses are being limited or thwarted by today's dominant digital platforms
- It is imperative to ensure that all California businesses can compete, thrive and succeed or fail on the merits of their offerings rather than their alignment with the financial interests of a handful of mega-companies that act as gatekeepers
- This will also ensure that California consumers can benefit from lower prices and from innovations from all corners of the industry, rather than just a handful of the most dominant firms
- Improving California's antitrust laws to ensure that ideological developments in Federal courts around Section 2 enforcement don't limit the next wave of innovation and success are not limited by the market power of a few firms is needed
- Enacting tech-specific gatekeeper restrictions (which have broad support in Washington, D.C. and around the world) will ensure that California remains a leader in innovation and business development