

# Data Privacy for the Privileged

Update on MSI-Brookings forum:  
*Intended & Unintended Effects of Privacy Regulations on  
Marketing*

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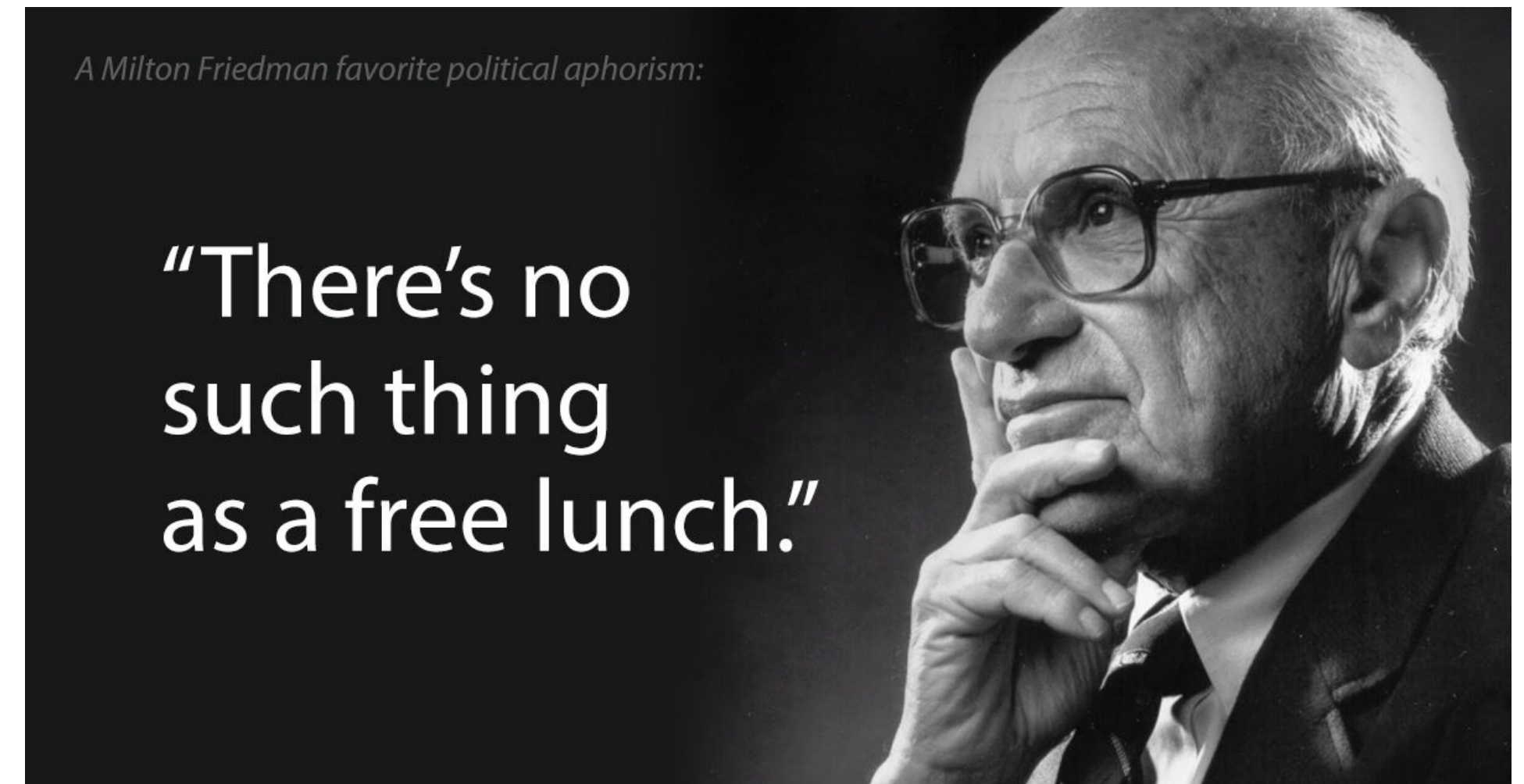
February 2024

# Overview

**Session focus:**  
**Consumer Data Privacy regulation**

Key take-aways from experts:

- Important arguments for consumer data regulation & privacy
- But many existing rules and restrictions generate costly unintended consequences





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# Important arguments for consumer data regulation



**Consumers want control over their data**

# Data Privacy Concerns

## Majority of Americans feel as if they have little control over data collected about them by companies and the government

*% of U.S. adults who say ...*

		Companies	The government
<b>Lack of control</b>	They have very little/no control over the data ___ collect(s)	<b>81%</b>	<b>84%</b>
<b>Risks outweigh benefits</b>	Potential risks of ___ collecting data about them outweigh the benefits	<b>81%</b>	<b>66%</b>
<b>Concern over data use</b>	They are very/somewhat concerned about how ___ use(s) the data collected	<b>79%</b>	<b>64%</b>
<b>Lack of understanding about data use</b>	They have very little/no understanding about what ___ do/does with the data collected	<b>59%</b>	<b>78%</b>

Data-driven products and services are often marketed with the potential to save users time and money or even lead to better health and well-being. Still, ... **Some 81% of the public say that the potential risks they face because of data collection by companies outweigh the benefits**

[Pew, 2019](#)



# Data Privacy Concerns

## Risks from use of Consumer Scores:

- **Biased scores** due to data biases or social inequities
- **Inaccurate scores** due to out-of-date data
- **Differential treatment** can seem “unfair”

Companies collect personal and transactional data to create consumer scores, which businesses ...use to predict how consumers will behave in the future.

[US Government Accountability Office, 2022](#)

# Data Privacy Concerns

**Fewer consumers trust online services to protect their data than two years ago, and they're less likely to say that the benefits outweigh privacy concerns**

Percent of respondents who agree with the following statements

● 2021 ● 2023



Almost 9 in 10 agree they should be able to view and delete the data that companies collect about them, and 80% feel they deserve to be paid by companies that profit from their data. 85% think device makers should do more to protect data privacy and security on the devices they sell, and 77% want the government to do more to regulate the way companies collect and use that data.

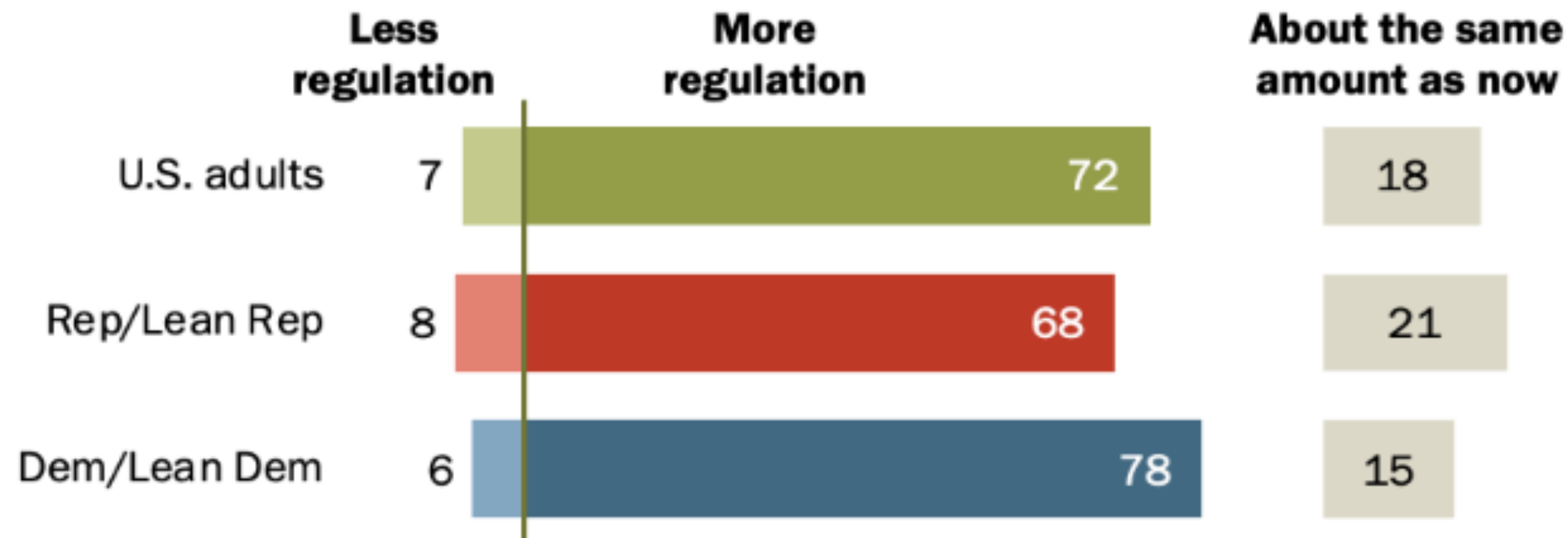
[Deloitte, 2023](#)



# Demand for Regulation is bipartisan

## Broad partisan support for more regulation of how consumer data is used

*% of U.S. adults who say there should be \_\_\_ government regulation of what companies can do with their customers' personal information*



[Pew Research Center, 2023](#)

# The privacy paradox?

## Privacy Paradox:

Stated preference for privacy higher than revealed preference



## Value of privacy needs to consider

- 1 Contextual factors** (Acquisti 2024, Acquisti et al 2020)
  - e.g., Real-time location for restaurant choice vs abortion clinic choice
- 2 intrinsic value vs instrumental factors**
  - e.g., instrumental aversion to higher prices (Lin 2022)
- 3 Bounded rationality & Privacy Fatigue**
  - e.g., non-stop daily privacy notifications/options/requests (Acquisti 2024)



# Data & targeted harmful/persuasive mis-information



WBEZ  
CHICAGO

NEWSLETTERS

SIGN IN

NPR SHOP

DONATE

## Social Media Usage Is At An All-Time High. That Could Mean A Nightmare For Democracy

MAY 27, 2020 · 5:02 AM ET

Miles Parks

4-Minute Listen + PLAYLIST ↓ ↔



WSJ | VIDEO

## Election 2020: Misinformation Has Never Been More of a Threat

As text messages, digital ads and social media continue to embed themselves deeper into our pandemic days and lives, an unprecedented amount of political mis- and disinformation threatens to disrupt the 2020 election. Illustration: Preston Jessee for The Wall Street Journal

By glitten

The New York Times

## Russians Again Targeting Americans With Disinformation, Facebook and Twitter Say

The companies said the F.B.I. had warned them that the Kremlin-backed Internet Research Agency set up a network of fake user accounts and a website.

**Threat to democracy?**

“When people use Facebook to see exactly what they want to see, **their understanding of the world can be greatly affected.**”

“[T]he architecture of control [by social media platforms] has a serious downside, **raising fundamental questions about freedom, democracy, and self government.**”





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# Targeted marketing not per se harmful





# Perception that personalized marketing is harmful

BIG DATA:  
SEIZING OPPORTUNITIES,  
PRESERVING VALUES

Executive Office of the President

MAY 2014



“Consumers have a legitimate expectation of knowing whether the prices they are offered for goods and services are systematically different than the prices offered to others.”

BIG DATA AND  
DIFFERENTIAL PRICING

February 2015



“...[differential pricing] transfers value from consumers to shareholders, which generally leads to an increase in inequality and can therefore be inefficient from a utilitarian standpoint.”

# Data-based targeted marketing not per se harmful

**What's more *fair*: Uniform offers vs uniform access/affordability?**

## **Personalized Pricing at Ziprecruiter:**

**Over 60% customers pay less under personalized pricing (small firms)!**

Source: [Dubé and Misra \(2022\)](#)

## **Uniform pricing in US grocery/drug/convenience:**

**Prices in poor neighborhoods 8% higher than if targeted geographically.**

Source: [DellaVigna and Gentzkow \(2017\)](#)

## **Personalized Pricing & Nutrition:**

**Low-income consumers have lower WTP for nutritious foods.**

Source: [Allcott et al \(2019\)](#), [Dubé \(2020\)](#)

## **Personalized Municipal fines/fees:**

**Escalating fines/fees increase bankruptcies & evictions in minority neighborhoods.**

Source: [Dubé \(2021\)](#), [Glenn et al. \(2022\)](#)



# Data-based targeted marketing not per se harmful

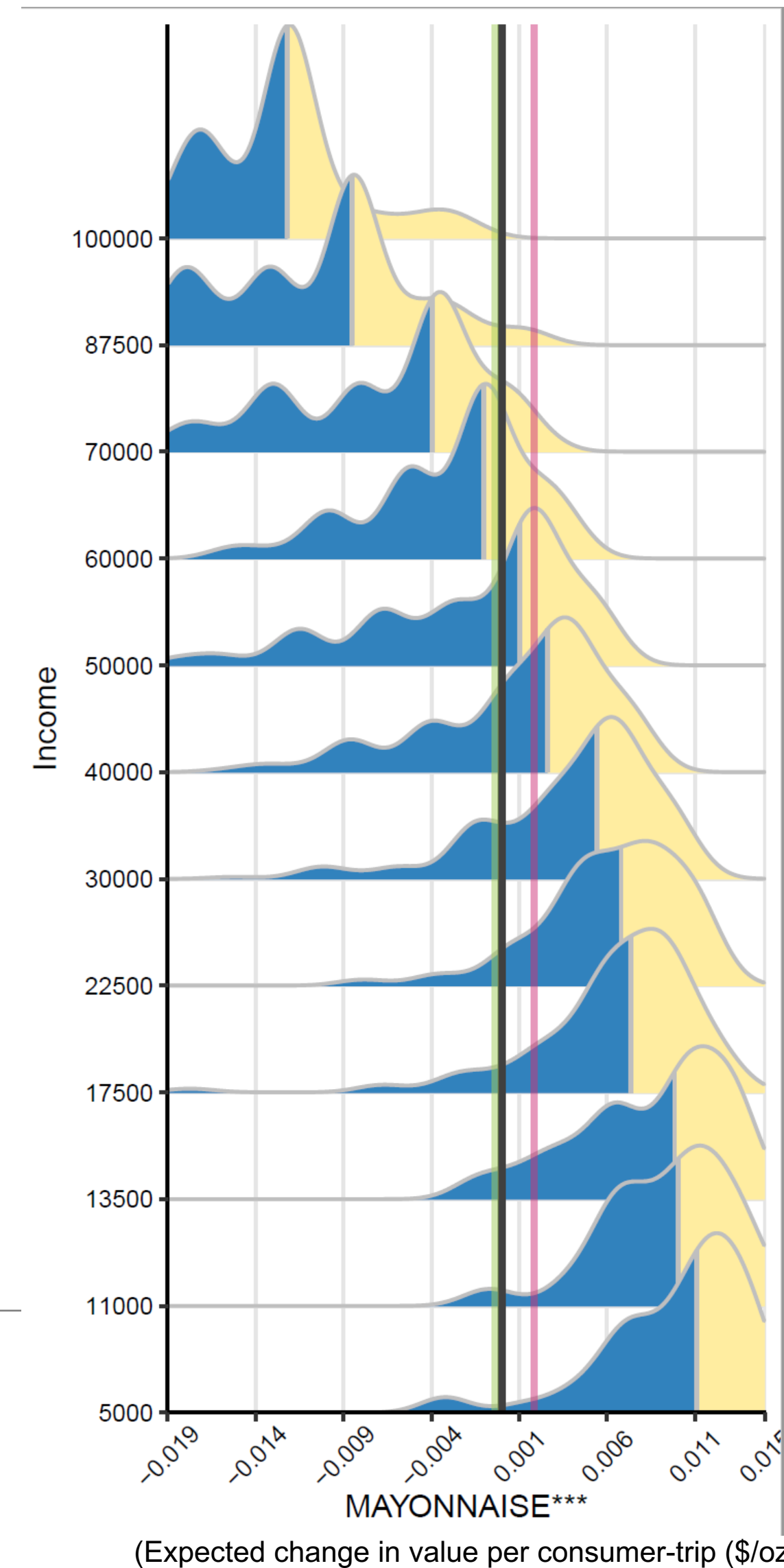
## Personalized Shelf Pricing of Mayonnaise

Use transaction histories from IRI (like loyalty card data)

Assume price competition (static oligopoly)

Personalized pricing with household-level price elasticities

➔ Personalization can be *progressive*



Dubé, Misra & Xu (2024)

# Data-based targeted marketing spurs innovation and increases consumer access

- Personalized e-mails with PII doubled SNAP-eligible enrollees (Misra 2022)
- Entry surge of **niche** DTC brands sold online and advertised on social media  
→ the Craft Beer revolution (Bronnenberg et al 2022)



- Privacy measures could stifle innovation that relies on targetable digital advertising (more below) (Goldfarb & Tucker 2012,





Too much or too little data?!  
Digital Exclusion



# Data Deserts & Algorithmic Exclusion



**Firms observe more data for rich vs poor consumers (Tucker 2023)**



Crowd-sourced data



**Low-income residents less likely to own smartphones!!!**

Crawford (2013)



# *Data Deserts & Algorithmic Exclusion*



**Firms observe more data for rich vs poor consumers (Tucker 2023)**

**Experian data 50% less likely to be matched with Hispanic or Asian than white voter registration data**



**Poorer households tend to move more frequently, fragmenting their address data**

**White Collar workers more likely to have a corporate e-mail account (easier to profile)**

Kaplan et al (2017)

# Data Deserts & Algorithmic Exclusion



**Ad impressions for women are more expensive than ad impressions for men**

(b/c higher share of shopping)

**Equality in ad budget allocations still reached more men than women**

(equal treatment but disparate impact)

Lambrech & Tucker (2019)

**#SheCanSTEM**



But you would need to observe gender to audit this disparity!!!!

**Algorithmic Ratings may exhibit bias**

**Men and women get higher average ratings, with stronger effect in low human-development-index countries (algorithmic bias can reflect human biases)**

Bairathi et al (2023)





# Data Privacy is a problem for the privileged consumer

**Facebook users who value privacy the most are older, richer, and more educated**



**VS**



Lin and Strulov-Schlain (2024)



# Data Privacy as a Cost to Firms and a deterrent to competition



# Privacy compliance costs

## Two years post GDPR:

- 👉 GDPR increased storage costs by 20% (Demirer et al 2024)
- 👉 Euro. firms reduced data stored 26% & computation 15% relative to US (Demirer et al 2024)
- 👉 EU usage of digital ad services declined 24% (Johnson et al 2023)

But Europe's digital ad sector became more concentrated, with Google and Meta gaining market share post GDPR!



# Data Privacy disadvantages small businesses



Reduced digital ad effectiveness 65%  
(Goldfarb & Tucker 2011)

## But consider:

- Digital advertising saves small US firms \$163 Billion annually (SBE council)
  - 9 in 10 small businesses use online ads (mainly Facebook)
  - 2/3rds lack a viable alternative medium!
- Data-tracking ban on Meta disproportionately raises costs for small advertisers (Wernerfelt et al 2024)
- GDPR associated with overall decline in new firms and VC investment (Jia et al 2021; Janssen et al 2022)





Solutions?

# Privacy-Enhancing Technologies (PETs)

**PETs protect privacy without bans & without burden of consent on consumers**

**Disadvantage to small businesses** (Johnson et al 2022)

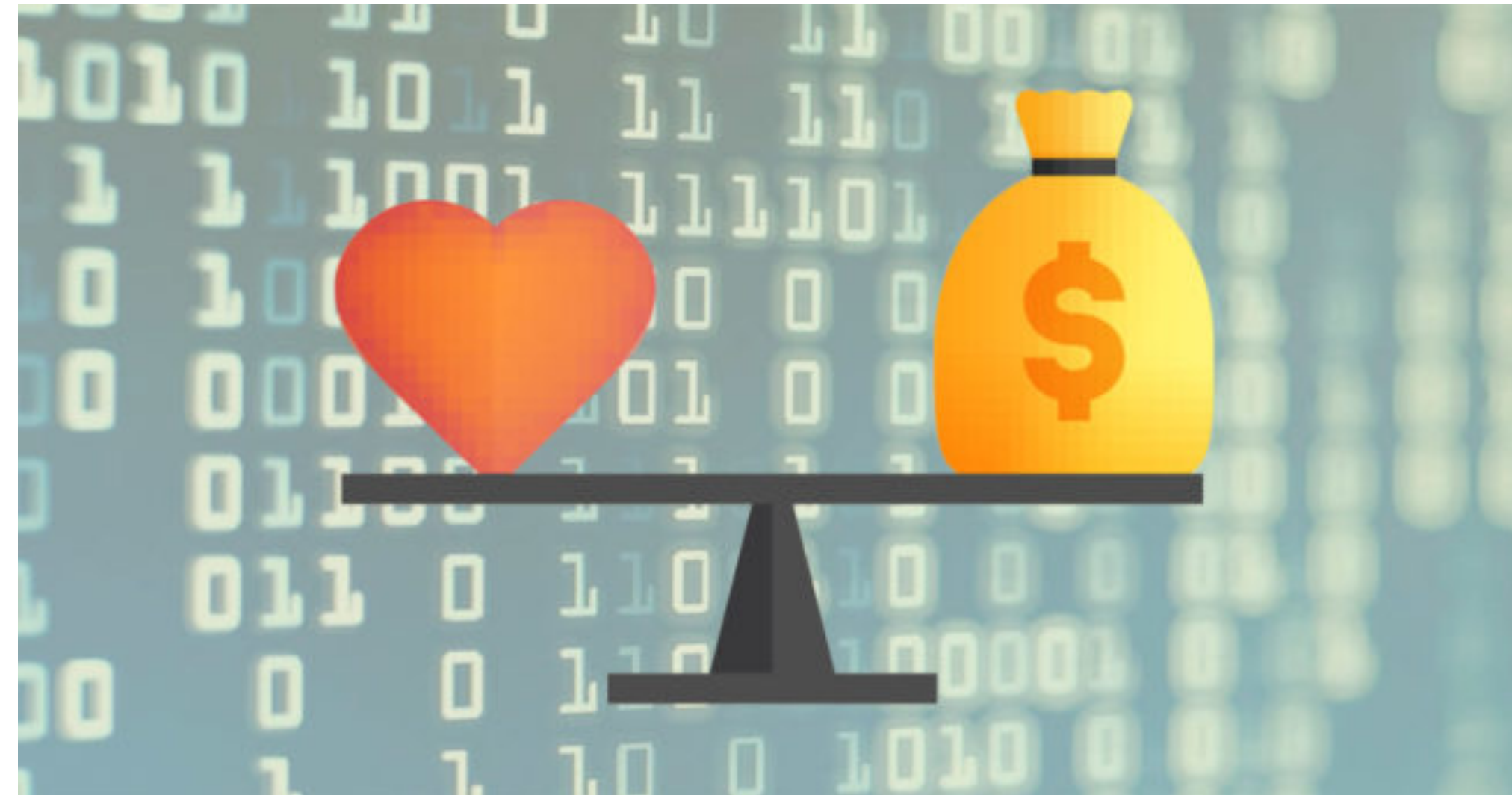
- 👉 More data transformation needed in small datasets
- 👉 Large fixed implementation costs (scale)

**Are we just further tilting the battlefield to favor Goliath in the battle against David?**





# There is a privacy vs content trade-off



Economic costs are often high & unanticipated by regulators

But regulators & businesses also need a clearer picture of the **ethical** benefits of privacy to get the balance right