



AMERICAN
BANKRUPTCY
INSTITUTE

Consumer Practice Extravaganza

Racial Disparities

Dr. Bronson S. Argyle

Brigham Young University | Provo, Utah

Dr. Sasha Indarte

University of Pennsylvania, The Wharton School | Philadelphia

Dr. Benjamin Iverson

Brigham Young University | Provo, Utah

Hon. Erik P. Kimball

U.S. Bankruptcy Court (S.D. Fla.) | West Palm Beach

Dr. Christopher J. Palmer

Massachusetts Institute of Technology Sloan School of Management
Cambridge, Mass.

Explaining Racial Disparities in Personal Bankruptcy Outcomes

Bronson Argyle
BYU

Sasha Indarte
Wharton, UPenn

Ben Iverson
BYU

Christopher Palmer
MIT & NBER

October 2024

Motivation

- Personal bankruptcy is a major source of debt relief for US households
 - ▶ 1 in 10 Americans have filed at some point in their life (Keys, 2018)
 - ▶ Average \$149k per filer \Leftrightarrow \$832/adult/year discharged annually (US Courts, 2019)
- There are significant racial disparities in financial outcomes in the US
 - ▶ Median wealth of white households is **10x** Black and Hispanic wealth: (\$171k vs. \$17k) (2016 SCF)
 - ▶ Minorities pay **higher interest rates** than whites with the same credit score (Ghent et al. 2014; Bayer et al.; 2017, Butler et al., 2022; Barlett et al., 2022)
 - ▶ Black household consumption falls **50% more** in response to the same income shock (Ganong Jones Noel Farrell Greig Wheat, 2020)

This Paper: Size and Source of Racial Disparities in Bankruptcy

- **Approach:**

- ▶ What observable **filer** characteristics explain disparities in bankruptcy outcomes?
- ▶ Develop framework to formalize how **homophily** can **detect and quantify racial bias**
- ▶ Estimate **racial homophily** between filers and bankruptcy **trustees** & judges

This Paper: Size and Source of Racial Disparities in Bankruptcy

- **Approach:**

- ▶ What observable **filer** characteristics explain disparities in bankruptcy outcomes?
- ▶ Develop framework to formalize how **homophily** can **detect and quantify racial bias**
- ▶ Estimate **racial homophily** between filers and bankruptcy **trustees** & judges

- **Main findings:**

- ▶ Minority filers' cases are more likely to be **dismissed without debt relief** on average
 - Chapter 7: **2.3 pp** more often (1.75× higher than average)
 - Chapter 13: **13 pp** more often (21% higher than average)
- ▶ Observable variables reduce disparities to **0.3 and 3.6 pp** for Chapters 7 and 13
- ▶ Random assignment to White trustees ⇒ Ch 13 dismissal rate ↑ **2.3 pp** for Black filers
- ▶ Taste-based or inaccurate statistical bias explain **≥ 15%** of overall Ch 13 disparity
- ▶ Trustee race **doesn't** affect Ch 7 dismissal rates

Outline

1. Background and Data
2. Racial Disparities in Bankruptcy Dismissals
3. Homophily and Bias: Econometric Model
4. Racial Homophily in Bankruptcy
5. Conclusion

Background and Data

What is Personal Bankruptcy?

- Allows households to discharge unsecured debt (credit card, medical, etc.)
 - ▶ To receive a debt discharge, filers must make partial payments to creditors
- Households file under one of two Chapters:
 - ▶ **Chapter 7:** discharge received after giving up non-exempt assets (~3 month process)
 - ▶ **Chapter 13:** discharge received after completing a **5 year** repayment plan
- A **trustee** evaluates filer financial reporting and makes recommendation to **judge**
 - ▶ Key decision: to **discharge debt** or **dismiss without debt relief**
 - ▶ Trustee compensation is proportional to size of payments to creditors (up to a cap)

The Dismissal Decision

- Trustees and judges consider multiple outcomes when choosing whether to dismiss:
 - ▶ Prevent **fraudulent** filing (misreporting of assets, income, and debt)
 - ▶ Develop a **feasible** repayment plan
 - ▶ Maximize payouts to creditors subject to **applicable** debtor protections

The Dismissal Decision

- Trustees and judges consider multiple outcomes when choosing whether to dismiss:
 - ▶ Prevent **fraudulent** filing (misreporting of assets, income, and debt)
 - ▶ Develop a **feasible** repayment plan
 - ▶ Maximize payouts to creditors subject to **applicable** debtor protections
- Decision entails **subjective** evaluations of the filer
 - ▶ E.g., procedural **error** or **intentional** fraud? Is the Ch 13 plan **feasible**?
 - ▶ Subjectivity may make it easier for trustee and judge **bias** to influence dismissals

The Dismissal Decision

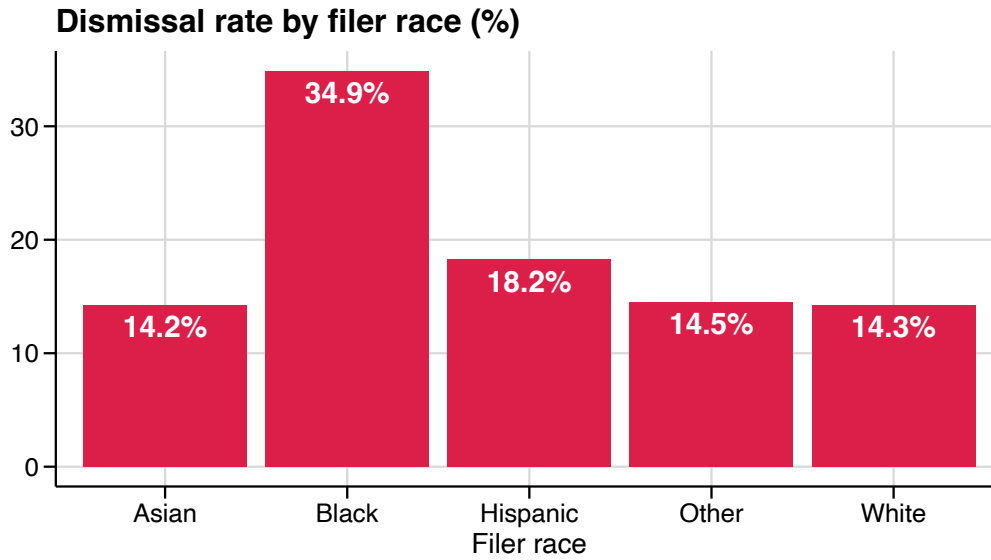
- Trustees and judges consider multiple outcomes when choosing whether to dismiss:
 - ▶ Prevent **fraudulent** filing (misreporting of assets, income, and debt)
 - ▶ Develop a **feasible** repayment plan
 - ▶ Maximize payouts to creditors subject to **applicable** debtor protections
- Decision entails **subjective** evaluations of the filer
 - ▶ E.g., procedural **error** or **intentional** fraud? Is the Ch 13 plan **feasible**?
 - ▶ Subjectivity may make it easier for trustee and judge **bias** to influence dismissals
- Detecting bias with traditional statistical tools is especially difficult when decisions are **subjective** and feature **trade-offs**
 - ▶ For this reason, we introduce a new statistical framework to test for bias

Bankruptcy and Race Data

- **Lexis Nexis** bankruptcy case data
 - ▶ Filer names and addresses, chapter, events during case, case outcomes, and DM names
 - ▶ 32M cases, full coverage of US Jan. 2010 – Jun. 2022 (38% of sample)
- **Federal Judicial Center (FJC)** case data
 - ▶ Additional case info for 2008+ (e.g., filer assets, liabilities, income)
- **Filer race data:** merge to L2 using filer name and address (67% match rate)
- **Decision maker (DM) race data:** manually collected and verified (63% match rate)
- Merged dataset with full race info and all controls: 4.3M obs

Racial Disparities in Bankruptcy Dismissals

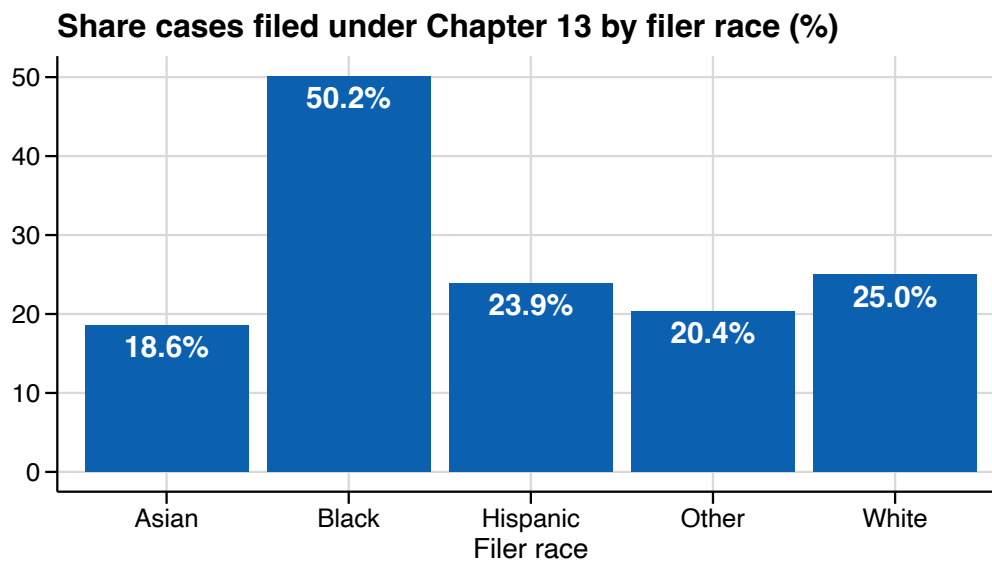
Racial Disparities in Dismissals: The Role of Chapter Choice



Argyle Indarte Iverson Palmer—Explaining Racial Disparities in Personal Bankruptcy Outcomes

7 / 19

Racial Disparities in Dismissals: The Role of Chapter Choice

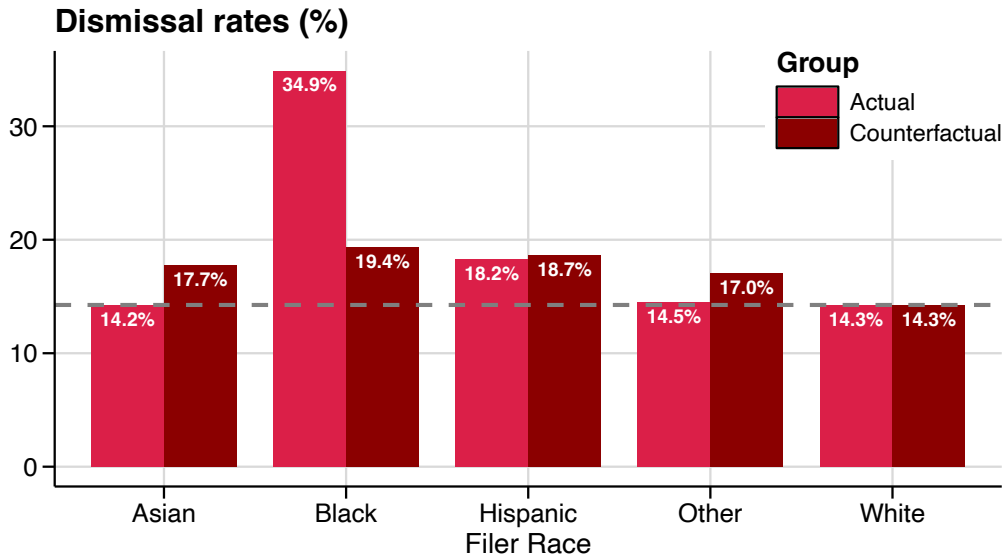


Chapter 7 dismissal rate: **3%**, Chapter 13 dismissal rate: **61%**

Argyle Indarte Iverson Palmer—Explaining Racial Disparities in Personal Bankruptcy Outcomes

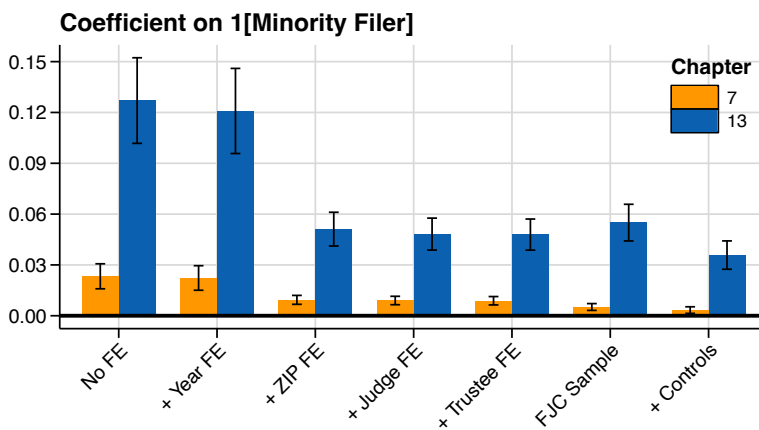
7 / 19

Racial Disparities in Dismissals: The Role of Chapter Choice



Counterfactual gives everyone the White Ch 13 filing rate but retains within-Chapter dismissal rates

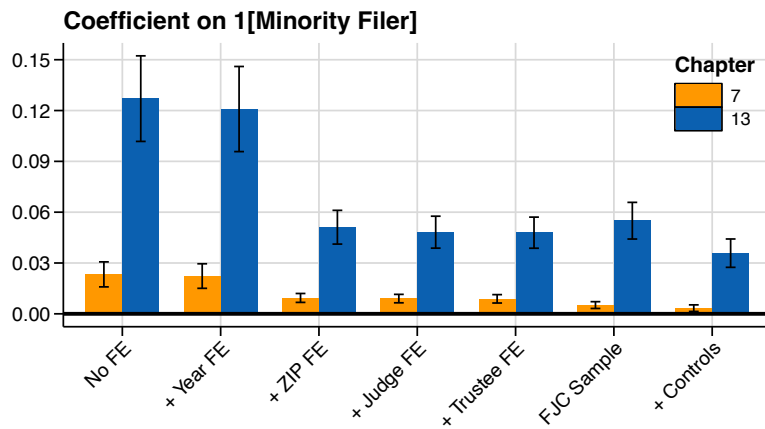
Racial Disparities in Dismissal Rates



Minorities' dismissal rates are 2.3% and 13% higher in Ch 7 and 13 (resp.)

Shrinks to 0.3% and 3.6% for Ch 7 and 13 (resp.) after controlling for observables

Racial Disparities in Dismissal Rates



Minorities' dismissal rates are 2.3% and 13% higher in Ch 7 and 13 (resp.)

Shrinks to 0.3% and 3.6% for Ch 7 and 13 (resp.) after controlling for observables

Ch 13 gaps after controls:

- Black: 5.6%
- Hispanic: 0.9%
- Other: 0.7%
- Asian: 0.00%

[Table](#)

Homophily and Bias: Econometric Model

What can cause racial disparities?

- In general, disparate racial outcomes can arise from two sources:

① Systematic differences/inequalities

- ▶ Specifically, if there are non-race factors **correlated** with race
- ▶ Example: if minorities have a greater risk of job loss, they may be dismissed more often

② Decision-Maker (DM) Bias

- ▶ When DMs react differently to filer race—even when holding constant non-race factors

Three Types of Bias

① Taste-based/racial animus: when a DM's **preferences** over outcomes varies with the other party's race

- ▶ Example: a DM dislikes it more when fraud is committed by minority filers

② Inaccurate statistical bias: when a DM acts on **inaccurate beliefs** related to the other party's race

- ▶ AKA, stereotyping
- ▶ Example: a DM over-estimates the likelihood that minority filers commit fraud

③ Accurate statistical bias: when a DM acts on **statistically accurate beliefs** related to the other party's race

- ▶ Similar to legal concepts like bona fide occupation qualifications (BFOQ)
- ▶ Example: a DM anticipates that a minority filer has a greater risk of job loss

How can we detect bias?

- We show that you can use **homophily** to test for and measure the influence of bias
 - ▶ **Homophily:** how the minority-White dismissal gap varies with DM race

How can we detect bias?

- We show that you can use **homophily** to test for and measure the influence of bias
 - ▶ **Homophily:** how the minority-White dismissal gap varies with DM race
- Intuition for what makes this possible:

Disparity = systematic differences + accurate statistical bias + other bias

How can we detect bias?

- We show that you can use **homophily** to test for and measure the influence of bias
 - ▶ **Homophily:** how the minority-White dismissal gap varies with DM race
- Intuition for what makes this possible:

Disparity = systematic differences + accurate statistical bias + other bias

- ▶ If DMs of different races face populations of filers with similar systematic differences, then:

$$\text{Homophily} = \Delta(\text{accurate statistical bias}) + \Delta(\text{other bias})$$

How can we detect bias?

- We show that you can use **homophily** to test for and measure the influence of bias
 - ▶ **Homophily:** how the minority-White dismissal gap varies with DM race
- Intuition for what makes this possible:

Disparity = systematic differences + accurate statistical bias + other bias

- ▶ If DMs of different races face populations of filers with similar systematic differences, then:

$$\text{Homophily} = \Delta(\text{accurate statistical bias}) + \Delta(\text{other bias})$$

- ▶ If DMs of different races have similar accurate statistical bias, then:

$$\text{Homophily} = \Delta(\text{other bias})$$

How can we detect bias?

- We show that you can use **homophily** to test for and measure the influence of bias
 - ▶ **Homophily:** how the minority-White dismissal gap varies with DM race
- Intuition for what makes this possible:

Disparity = systematic differences + accurate statistical bias + other bias

- ▶ If DMs of different races face populations of filers with similar systematic differences, then:

$$\text{Homophily} = \Delta(\text{accurate statistical bias}) + \Delta(\text{other bias})$$

- ▶ If DMs of different races have similar accurate statistical bias, then:

$$\text{Homophily} = \Delta(\text{other bias})$$

- Homophily can identify differences in **taste and/or inaccurate statistical bias** between White and non-White DMs

Racial Homophily in Bankruptcy

Estimating DM Homophily

- We focus on dismissals and **Minority-White** homophily between **filers and trustees**
- Using case-level data, we estimate

$$\text{Dismissed} = \alpha \text{ Minority Filer} + \beta \text{ Minority Filer} \times \text{White Trustee} + \text{Control Variables} + \varepsilon$$

- Control variables: Year, District, Filer ZIP, Judge, Trustee, Pro Se, Prior Filing, Asset Case, Homeowner, Joint Filing, Assets, Leverage, Secured Debt Share, Income

A Natural Experiment from Trustee Assignment

- **Chapter 7** trustees are assigned to cases via a blind rotation system

A Natural Experiment from Trustee Assignment

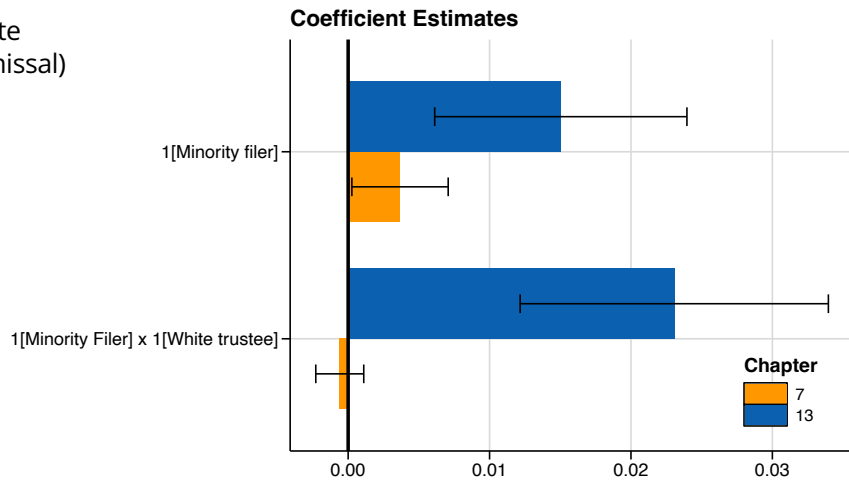
- Chapter 7 trustees are assigned to cases via a blind rotation system
- Chapter 13 Standing Trustees hired by local US Trustees Office
 - ▶ Time variation in local trustee race distribution ⇒ quasi-random assignment to filers

A Natural Experiment from Trustee Assignment

- Chapter 7 trustees are assigned to cases via a blind rotation system
- Chapter 13 Standing Trustees hired by local US Trustees Office
 - ▶ Time variation in local trustee race distribution ⇒ quasi-random assignment to filers
- Supporting evidence:
 - ▶ **Balance Test 1:** filer race and non-race characteristics do not predict trustee race ✓
 - ▶ **Falsification Test 2:** homophily estimate unaffected by including additional interactions of non-race characteristics with 1[White trustee] ✓

Dismissal Homophily Estimation Results

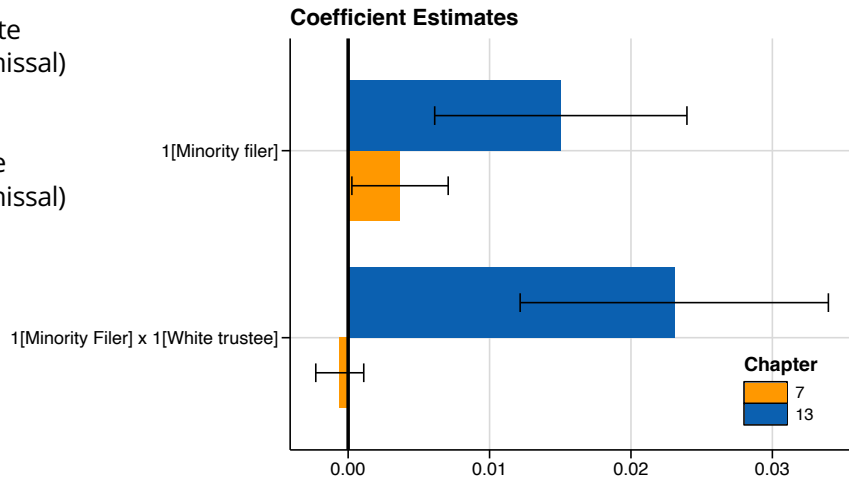
Ch 13: assignment to White trustees increases Pr(dismissal) **2.3%** for minority filers



Dismissal Homophily Estimation Results

Ch 13: assignment to White trustees increases Pr(dismissal) **2.3%** for minority filers

Ch 7: assignment to White trustees increases Pr(dismissal) **0%** for minority filers



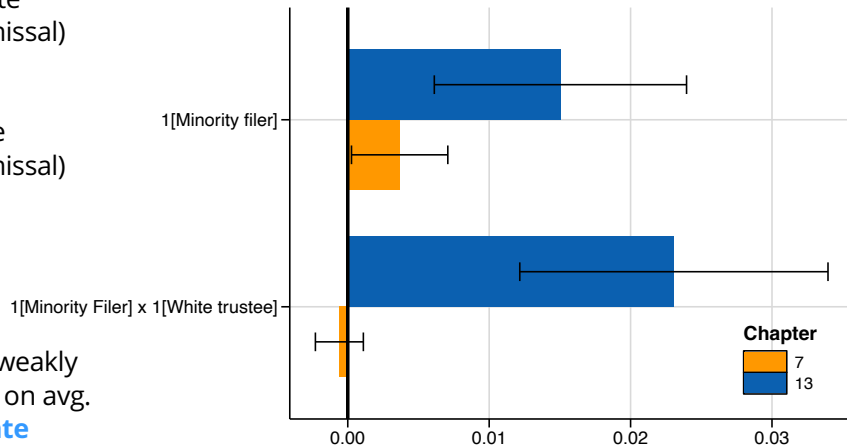
Dismissal Homophily Estimation Results

Ch 13: assignment to White trustees increases Pr(dismissal) **2.3%** for minority filers

Ch 7: assignment to White trustees increases Pr(dismissal) **0%** for minority filers

If non-White trustees are weakly biased against Black filers on avg.
 ⇒ **taste and/or inaccurate statistical bias explains ≥ 15%** of the initial 12.7pp Ch 13 disparity

Coefficient Estimates



▶ Bounding Details

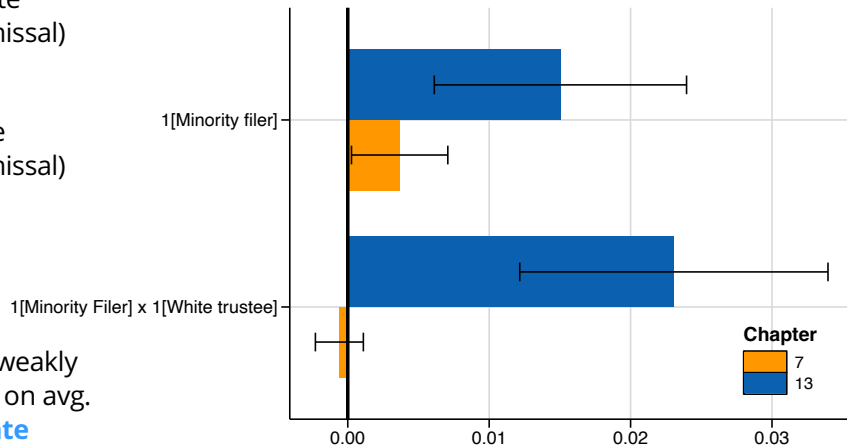
Dismissal Homophily Estimation Results

Ch 13: assignment to White trustees increases Pr(dismissal) **2.3%** for minority filers

Ch 7: assignment to White trustees increases Pr(dismissal) **0%** for minority filers

If non-White trustees are weakly biased against Black filers on avg.
 ⇒ **taste and/or inaccurate statistical bias explains ≥ 15%** of the initial 12.7pp Ch 13 disparity

Coefficient Estimates



Black: explains 19% of initial 13.4% Ch 13 disparity
Hispanic: explains 17% of initial 11.7% Ch 13 disparity

▶ Bounding Details

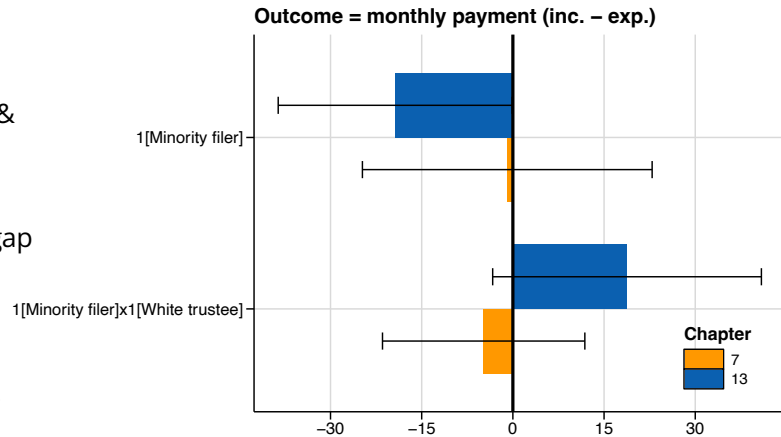
Cost of debt relief: higher required payments in Chapter 13

Chapter 13 filers are required to pay their disposable income (income minus **allowed** expenses)

Determined by **forecasting** income & identifying **appropriate** expenses

Average monthly income-expense gap for Black Ch 13 filers: \$583

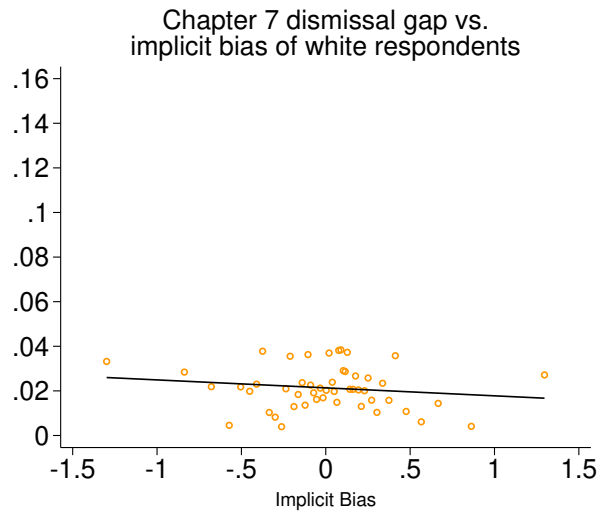
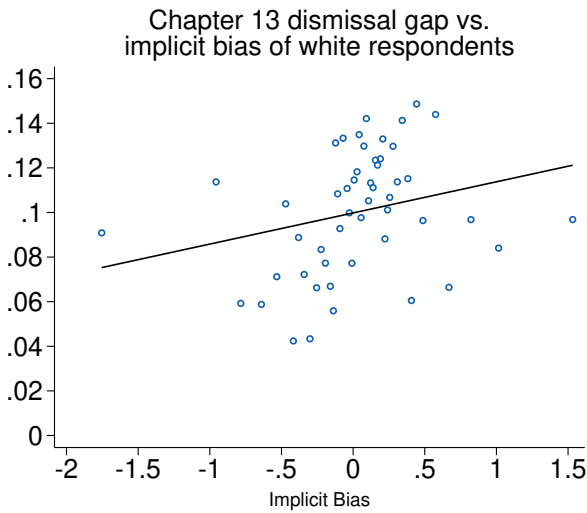
Data is after any revisions to income/expenses made by trustees



Is payment homophily driving Ch 13 dismissal homophily?

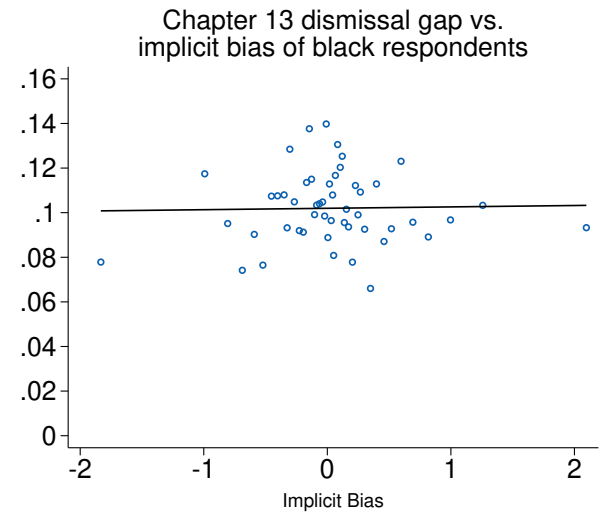
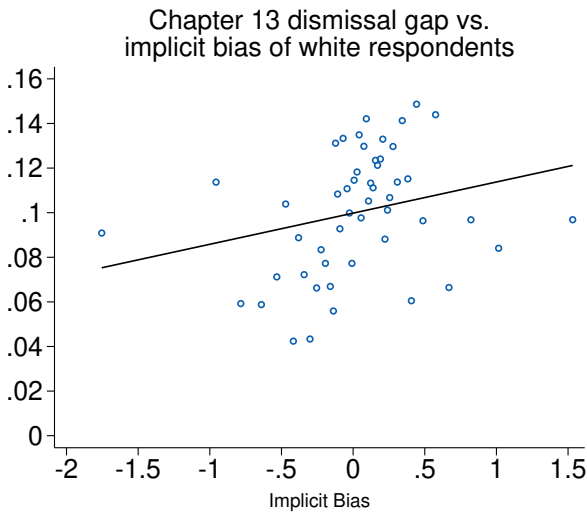
- Homophily primarily arises with respect to two dismissal reasons:
 - ▶ Dismissal for nonpayment (1.6% homophily estimate) and failure to file info (0.4%)
 - ▶ **Takeaway:** Ch 13 dismissal homophily is driven by dismissal for nonpayment
- But Ch 13 plan payment size does not strongly predict dismissal...
 - ▶ A \$100 higher monthly payment predicts a 0.4pp higher rate of dismissal
 - ▶ Controlling for payment amount has no major effect on nonpayment dismissal homophily
 - ▶ **Takeaway:** payment homophily is **unlikely** a major source of Ch 13 dismissal homophily
- Suggests homophily is driven by **how trustees react** to nonpayment

Direction of Bias: Evidence from Implicit Bias Scores



Note: Implicit bias is measured using Implicit Association Test (IAT) scores for respondents required to take the test for school or work and are aggregated at the county-year level.

Direction of Bias: Evidence from Implicit Bias Scores



Note: Implicit bias is measured using Implicit Association Test (IAT) scores for respondents required to take the test for school or work and are aggregated at the county-year level.

Conclusion

Conclusion

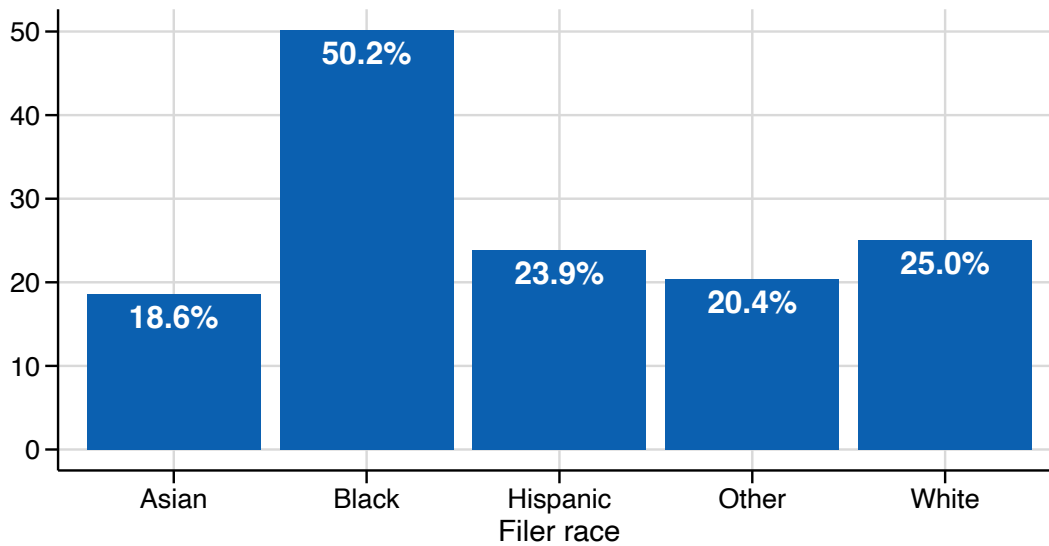
- Minority bankruptcy filers experience significantly higher dismissal rates
 - ▶ Observables explain most Ch 7 disparities, but only ~72% for Ch 13
- Formalize when **homophily** can detect and quantify taste and/or inaccurate statistical racial bias
 - ▶ Method can be applied to a variety of other settings, including those in which an outcome test may not be feasible
- Minority Ch 13 filers assigned to white trustees see **2.3% higher dismissal rates**
 - ▶ Indicates presence of **taste-based or inaccurate statistical discrimination**
- **Bias among bankruptcy DMs may limit minorities' access to debt relief**

Thanks!

The role of Chapter choice

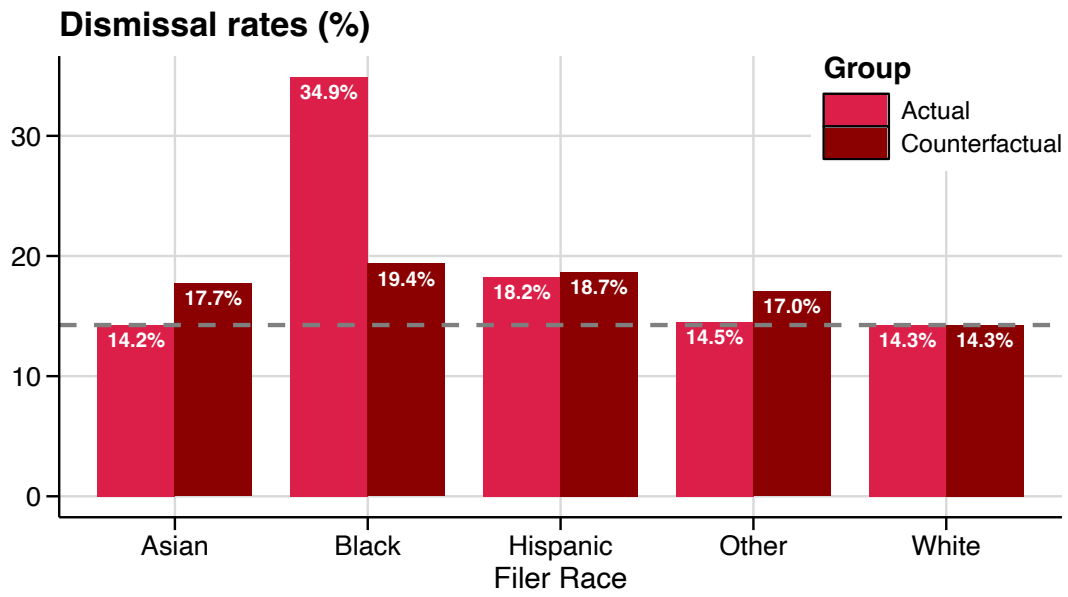
[Go Back](#)

Share cases filed under Chapter 13 by filer race (%)



The role of Chapter choice

[◀ Go Back](#)



Argyle Indarte Iverson Palmer—Explaining Racial Disparities in Personal Bankruptcy Outcomes

1 / 1

Faculty

Dr. Bronson S. Argyle is an assistant professor of finance at the Marriott School of Business at Brigham Young University in Provo, Utah. His research has focused primarily on the financial decisions made by households and the ensuing equilibrium effects for consumer credit markets. Prof. Bronson received his B.S. in physics *cum laude* and with honors from Brigham Young University in 2008 and his Ph.D. in 2014 from Columbia University.

Dr. Sasha Indarte is an assistant professor of finance at the Wharton School of Business at the University of Pennsylvania in Philadelphia. Her primary areas of research are household finance, banking and macroeconomics. Dr. Indarte's research investigates the causes and consequences of financial distress, using big data, quasi-experimental research designs and structural models. She has won several awards, including the Wharton Teaching Excellence Award, a National Science Foundation Grant and an NBER Small Grants for Household Finance Research. Her fellowships include the Macro Financial Modeling Initiative Dissertation Fellowship. Dr. Indarte earned her Ph.D. in economics from Northwestern University in 2019.

Dr. Benjamin Iverson is an associate professor in the finance department at Brigham Young University in Provo, Utah, where he has worked for the past three and half years. His research mostly focuses on corporate and consumer bankruptcy, and he has published articles in several of the leading academic journals. Previously, Dr. Iverson was an assistant professor at the Kellogg School of Management at Northwestern University. He also worked as an assistant economist at the Federal Reserve Bank of New York. Dr. Iverson received his undergraduate degree in economics from Brigham Young University and his Ph.D. in business economics from Harvard University.

Hon. Erik P. Kimball is Chief U.S. Bankruptcy Judge for the Southern District of Florida in West Palm Beach, appointed in 2008 and reappointed in 2022. Prior to his appointment to the bench, he was a member of the Commercial Law and Bankruptcy Department at Hale and Dorr (now WilmerHale) in the firm's Boston office, where he specialized in corporate bankruptcy, workouts and debt restructuring, and spent considerable time on *pro bono* representations of individual debtors. Judge Kimball left Hale and Dorr to become a vice president at Colonial Management Associates Inc., a Boston-based mutual fund advisor, where he oversaw all fixed-income defaults for the firm's municipal department. Thereafter, he was a shareholder with the Florida firm Nabors, Giblin & Nickerson, P.A., where his practice focused on representing institutional investors and indenture trustees in connection with defaults of publicly traded debt securities. He later returned to Boston as a vice president in the Investment Department at Columbia Management Advisors, an affiliate of Bank of America, where he supervised all fixed-income defaults and assisted in the management of its Municipal Department. From 2003 until his judicial appointment in 2008, Judge Kimball was a shareholder at Akerman Senterfitt in the firm's Orlando office, where he represented secured creditors, indenture trustees, institutional investors, corporate debtors and other parties in bankruptcy, receivership and debt-restructuring matters. Prior to his appointment, Judge Kimball was a member of the Board of Governors and a member of the Executive Committee of the National Federation of Municipal Analysts, an organization of more than 2,000 municipal credit analysts whose primary goal is to

provide educational programs for municipal finance professionals. During his long association with the NFMA, he assisted in writing and presenting on numerous topics relevant to municipal finance. Judge Kimball is a recipient of the Denis Maguire *Pro Bono* Award of the Boston Bar Association. He received his his B.A. from the University of Massachusetts at Amherst in 1987 and his J.D. from Boston College Law School in 1990.

Dr. Christopher J. Palmer is an associate professor of finance at the Massachusetts Institute of Technology's Sloan School of Management in Cambridge, Mass., where he teaches corporate finance. His research focuses on how credit, real estate and labor markets respond to periods of significant upheaval, as well as on financial decision-making. His current research projects evaluate policies designed improve retirement savings and reform the personal bankruptcy system. Dr. Palmer also is a research associate at the National Bureau of Economic Research and an affiliate with the Jameel Poverty Action Lab. He previously taught real estate finance at the University of California Berkeley's Haas School of Business and was a visiting scholar at Harvard Business School and the Federal Reserve Banks of New York, Boston and San Francisco. Prior to graduate school, Dr. Palmer consulted with Compass-Lexecon. He received his B.A. in economics and mathematics from Brigham Young University and his Ph.D. in economics from the Massachusetts Institute of Technology.