

PANEL DISCUSSION:

ML/AI in Consumer Credit. Evolution or Revolution?

ADAIR MORSE, UC BERKELEY

What I have been doing a big part of the last 3 years:

- “Algorithmic Discrimination and Input Accountability under the Civil Rights Acts”
 - With R. Bartlett, R. Stanton, N. Wallace
- “Consumer-Lending Discrimination in the FinTech Era”
 - With R. Bartlett, R. Stanton, N. Wallace
- “Discrimination” in Handbook of Technological Finance
 - With K. Pence

Engaging:

Lawyers & Economists at:

- Federal Reserve System
- FDIC, CFPB, OCC
- FCA (UK)
- Freddie & Fannie
- US Senate
- States: Multiple DA’s offices and Fair Housing (etc)

TRIGGER 2 POINTS FOR DISCUSSION

1. Law about inputs (just presented)

- Supreme Court in Griggs v. Duke Power Co, codified by Congress in Civil Rights Act of 1991
- Any variable must only cause disparate effect on protected category via legitimate business necessity.
- In lending: Court is explicit that legitimate business necessity is credit risk

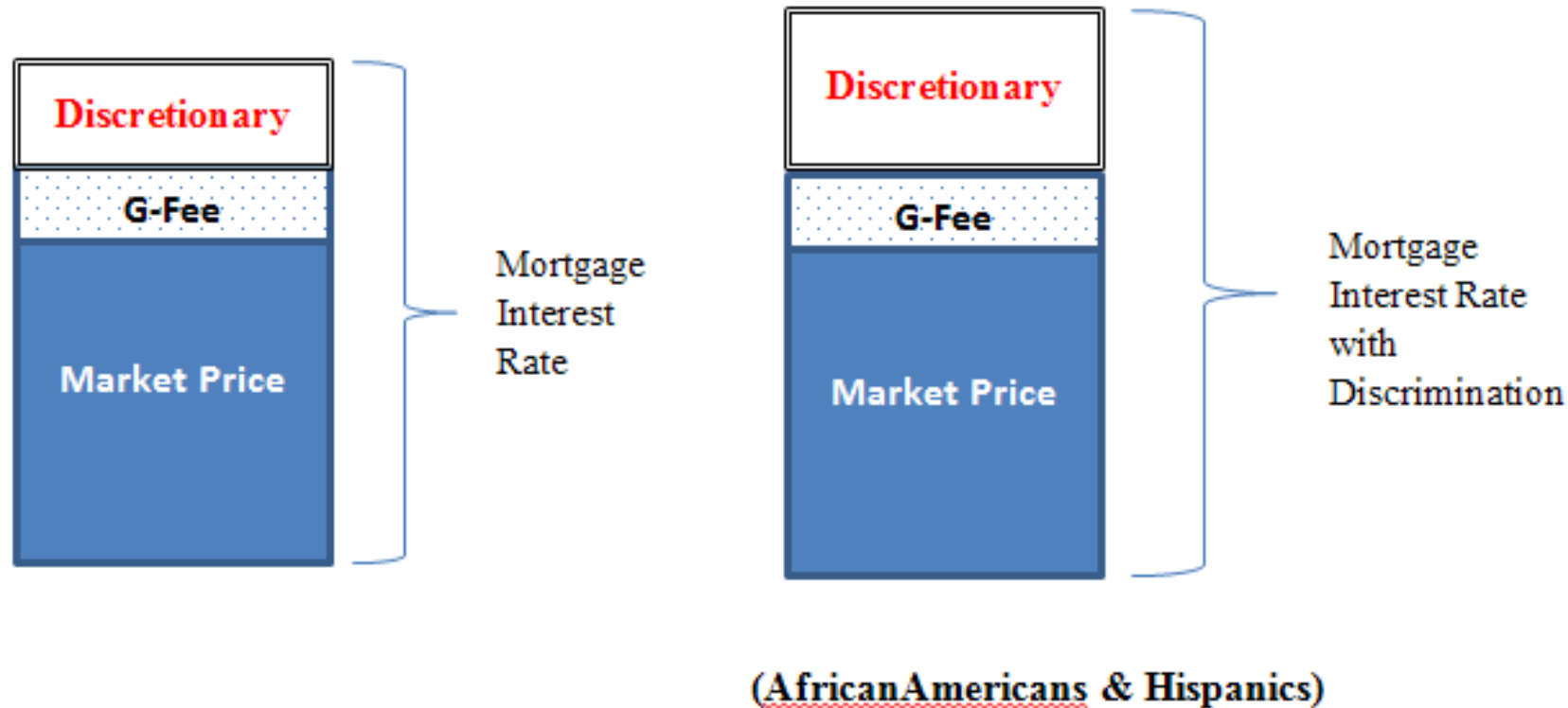
2. Related.... Large implications for using algorithms to derive pricing strategies to profit maximize

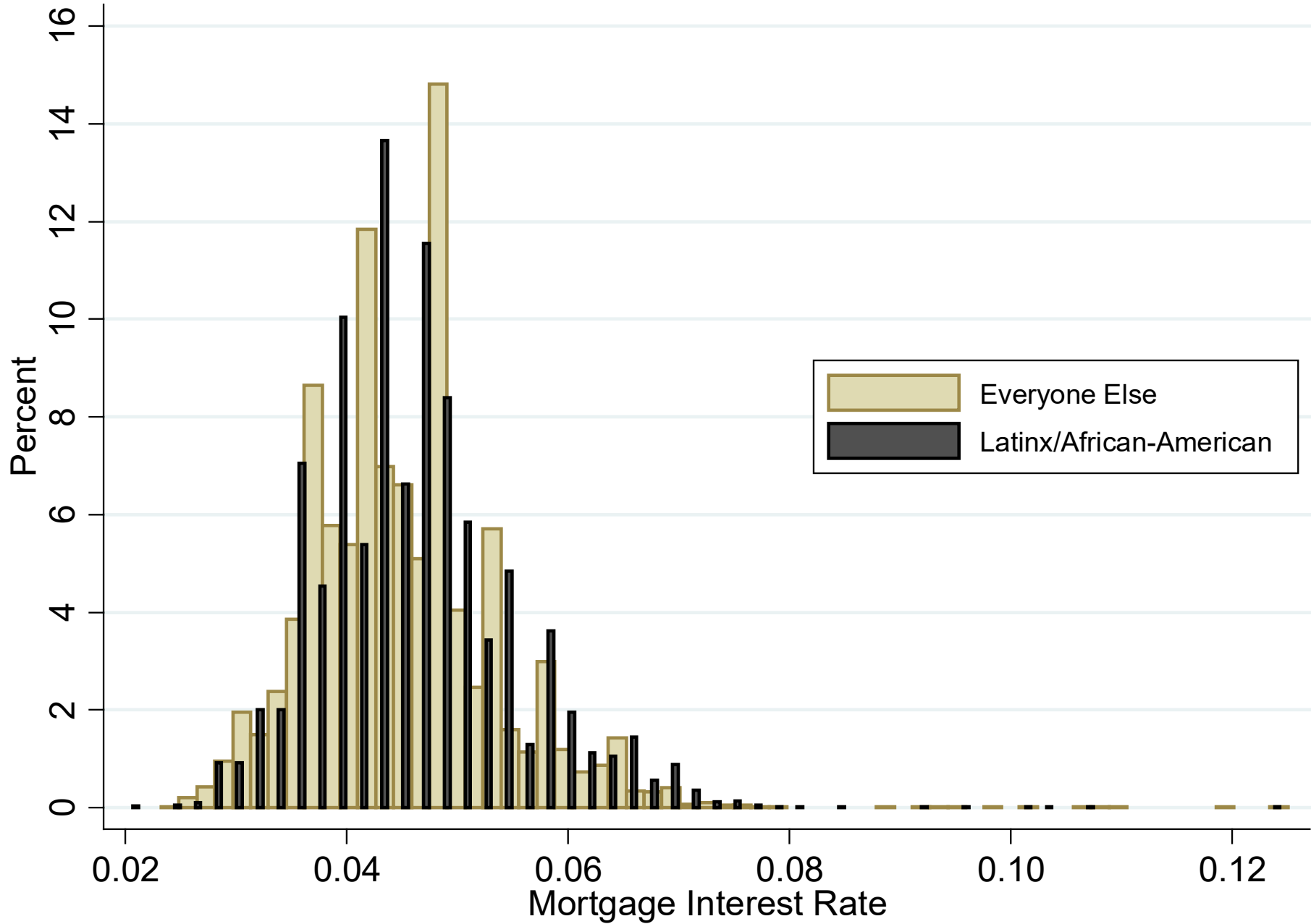
- In particular... expected “shopping around” behavior

LENDER PRICING OF MORTGAGE

Interest rate pricing

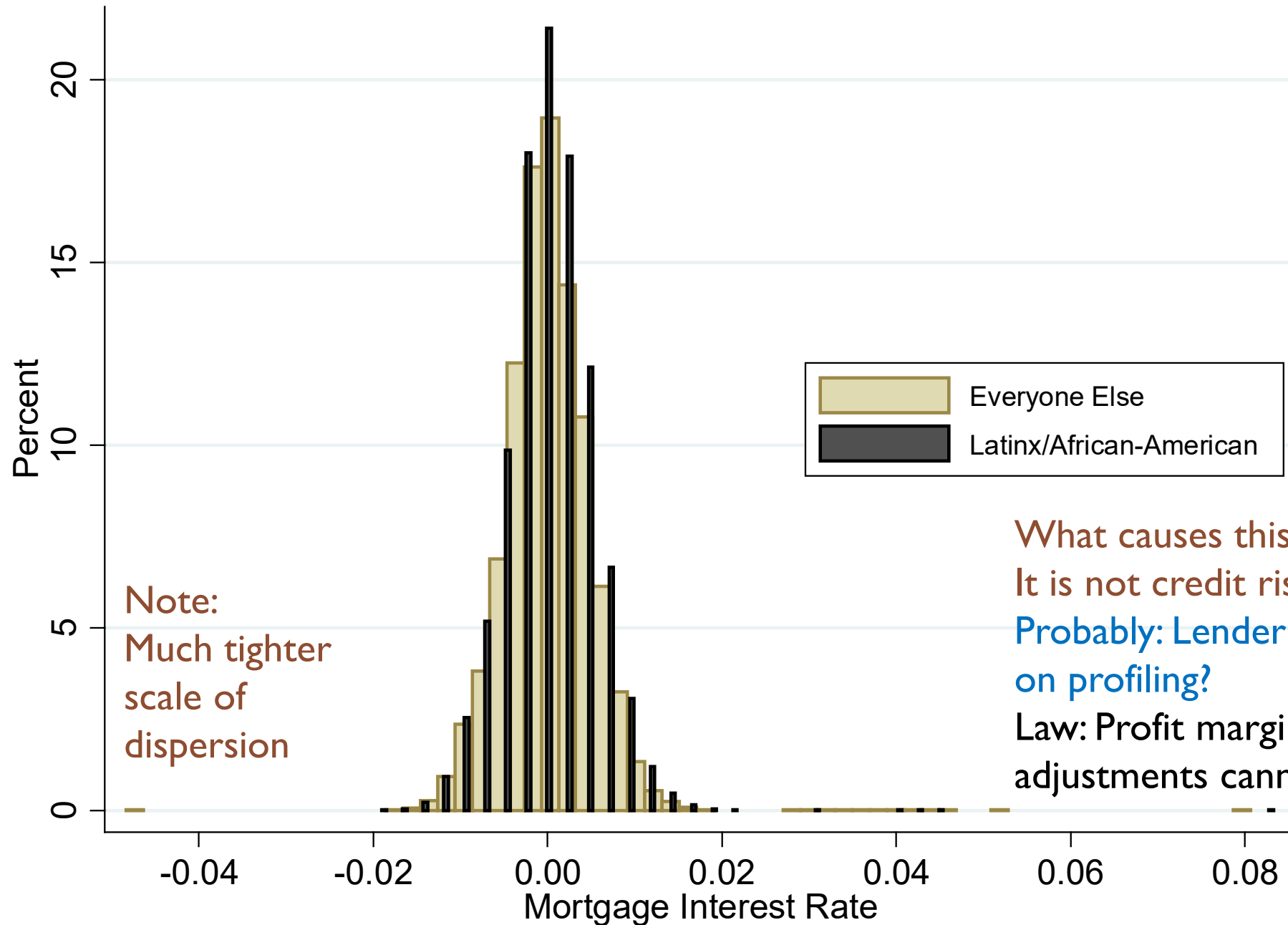
- = Market rate
- + Expected cost of default
(credit risk= G-Fee)
- + Discretionary part for
lender profits & strategic
pricing





Raw Interest Rates

Interest Rates Adjusted for GSE Grid



Note:
Much tighter
scale of
dispersion

What causes this dispersion?
It is not credit risk pricing.
Probably: Lender strategic pricing based on profiling?
Law: Profit margins beyond risk adjustments cannot be disparately applied.