Political Voice and (Mortgage) Market Participation:

Evidence from Minority Disenfranchisement

Seongjin Park
Chicago Booth

Arkodipta Sarkar
HKUST

Nishant Vats
Chicago Booth

ABFER 9^{th} Annual Conference

Motivation

- Power to affect election outcomes is the gateway to advancement in all aspects of life (Button, 2014)

"So long as I do not firmly and irrevocably possess the right to vote I do not possess myself. I cannot make up my mind - it is made up for me. I cannot live as a democratic citizen, observing the laws I have helped to enact - I can only submit to the edict of others."

- Dr. Martin Luther King Jr., 1957 speech titled "Give Us The Ballot,"

Motivation

- Existing studies have highlighted role of enfranchisement in public good provision
  - Casio & Washington (2014), Fujiwara (2015), Aneja & Avencio-Leòn (2019)

Motivation

- Existing studies have highlighted role of enfranchisement in public good provision
  - Casio & Washington (2014), Fujiwara (2015), Aneja & Avencio-Leòn (2019)

- Microeconomic evidence of the relationship between enfranchisement and individual decision making is limited

Motivation

- Existing studies have highlighted role of enfranchisement in public good provision
  - Casio & Washington (2014), Fujiwara (2015), Aneja & Avencio-Leòn (2019)

- Microeconomic evidence of the relationship between enfranchisement and individual decision making is limited
  - Do agents respond to changes in voting right through their economic and financial decisions?

Motivation

- Existing studies have highlighted role of enfranchisement in public good provision
  - Casio & Washington (2014), Fujiwara (2015), Aneja & Avencio-Leòn (2019)

- Microeconomic evidence of the relationship between enfranchisement and individual decision making is limited
  - Do agents respond to changes in voting right through their economic and financial decisions?
  - Can exclusion in the voting process result in exclusion from markets?

Motivation

- Existing studies have highlighted role of enfranchisement in public good provision
  - Casio & Washington (2014), Fujiwara (2015), Aneja & Avencio-Leòn (2019)

- Microeconomic evidence of the relationship between enfranchisement and individual decision making is limited
  - Do agents respond to changes in voting right through their economic and financial decisions?
  - Can exclusion in the voting process result in exclusion from markets?
  - To what extent can difference in voting rights across groups lead to inequality?

Motivation

- Existing studies have highlighted role of enfranchisement in public good provision
  - Casio & Washington (2014), Fujiwara (2015), Aneja & Avencio-Leòn (2019)

- Microeconomic evidence of the relationship between enfranchisement and individual decision making is limited
  - Do agents respond to changes in voting right through their economic and financial decisions?
  - Can exclusion in the voting process result in exclusion from markets?
  - To what extent can difference in voting rights across groups lead to inequality?
  - What are the possible mechanisms through which exclusion from the voting process can increase inequality?

Motivation

- Existing studies have highlighted role of enfranchisement in public good provision
  - Casio & Washington (2014), Fujiwara (2015), Aneja & Avencio-Leòn (2019)
- Microeconomic evidence of the relationship between enfranchisement and individual decision making is limited
  - Do agents respond to changes in voting right through their economic and financial decisions?
  - Can exclusion in the voting process result in exclusion from markets?
  - To what extent can difference in voting rights across groups lead to inequality?
  - What are the possible mechanisms through which exclusion from the voting process can increase inequality?
- Understanding the effects of changes in voting rights have *immediate* policy relevance

This Paper

- We provide empirical evidence on the link between electoral disenfranchisement and economic decision making

This Paper

- We provide empirical evidence on the link between electoral disenfranchisement and economic decision making
- We use the 2013 dilution of VRA = Exogenous variation in voting rights

This Paper

- We provide empirical evidence on the link between electoral disenfranchisement and economic decision making
- We use the 2013 dilution of VRA = Exogenous variation in voting rights
  - Following the dilution, we show reduction in mortgage origination for Black Americans

This Paper

- We provide empirical evidence on the link between electoral disenfranchisement and economic decision making
- We use the 2013 dilution of VRA = Exogenous variation in voting rights
  - Following the dilution, we show reduction in mortgage origination for Black Americans
- The results point to a decrease in mortgage market participation

This Paper

- We provide empirical evidence on the link between electoral disenfranchisement and economic decision making
- We use the 2013 dilution of VRA = Exogenous variation in voting rights
  - Following the dilution, we show reduction in mortgage origination for Black Americans
- The results point to a decrease in mortgage market participation
  - Reduction in loan application

This Paper

- We provide empirical evidence on the link between electoral disenfranchisement and economic decision making
- We use the 2013 dilution of VRA = Exogenous variation in voting rights
  - Following the dilution, we show reduction in mortgage origination for Black Americans
- The results point to a decrease in mortgage market participation
  - Reduction in loan application
  - No significant change in denial rate

This Paper

- We provide empirical evidence on the link between electoral disenfranchisement and economic decision making
- We use the 2013 dilution of VRA = Exogenous variation in voting rights
  - Following the dilution, we show reduction in mortgage origination for Black Americans
- The results point to a decrease in mortgage market participation
  - Reduction in loan application
  - No significant change in denial rate
  - Self selection out of the mortgage market

This Paper

- We provide empirical evidence on the link between electoral disenfranchisement and economic decision making
- We use the 2013 dilution of VRA = Exogenous variation in voting rights
  - Following the dilution, we show reduction in mortgage origination for Black Americans
- The results point to a decrease in mortgage market participation
  - Reduction in loan application
  - No significant change in denial rate
  - Self selection out of the mortgage market
- Results primarily driven by increased fear of rejection (pre-effects)
  - Consistent with the conjecture presented in Charles & Hurst (2002)

Why This Setting?

Why This Setting?

- We attempt to understand the relationship between enfranchisement and economic decision making & inequality

Why This Setting?

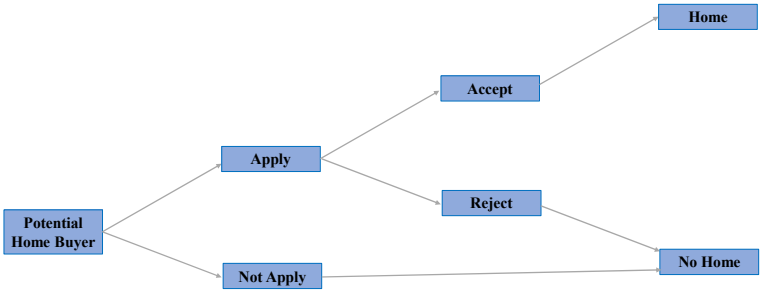
- We attempt to understand the relationship between enfranchisement and economic decision making & inequality
- Home purchases is a natural set up for the empirical investigation
  - Home purchases are one of the most important economic choice by a household (Chetty et al., 2007 & 2017)
  - An important medium of wealth accumulation & inter-generational wealth transfer

Why This Setting?

- We attempt to understand the relationship between enfranchisement and economic decision making & inequality
- Home purchases is a natural set up for the empirical investigation
  - Home purchases are one of the most important economic choice by a household (Chetty et al., 2007 & 2017)
  - An important medium of wealth accumulation & inter-generational wealth transfer
- We focus on mortgage market outcomes as a setup
  - Home mortgages are an integral part of home purchases
    - The 2014 survey of potential home-buyers by loanDepot finds that 71% of all Americans who want to buy a home will need financing
  - Exploit the richness of the data
    - Information on race and location of borrowers
    - We can track mortgages from application to origination or rejection
    - This allows understanding participation in mortgage markets

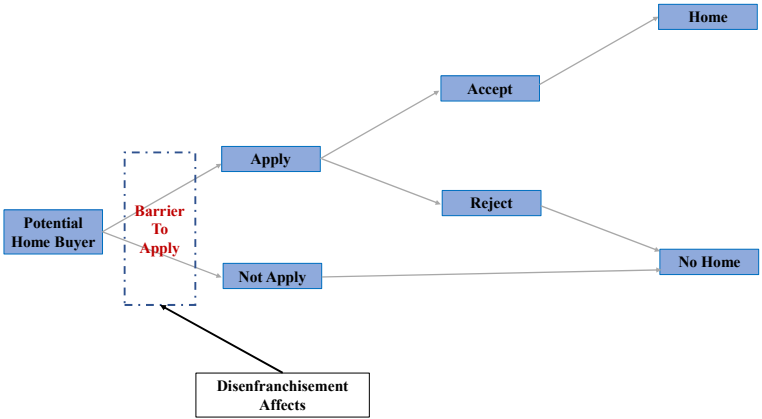
Framework

How can Disenfranchisement Effect Mortgage Applications?



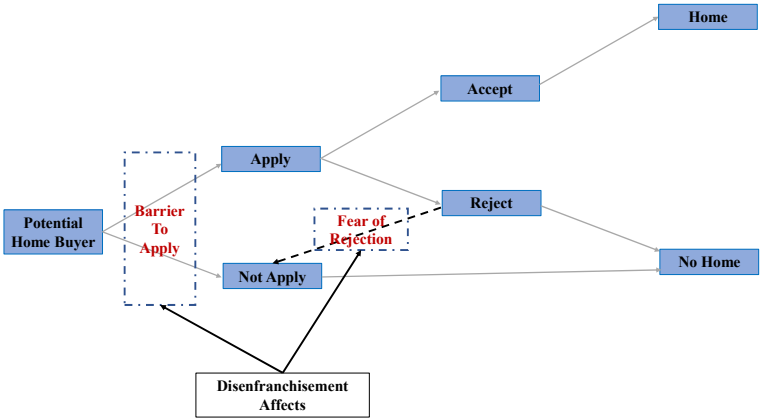
Framework

How can Disenfranchisement Effect Mortgage Applications?



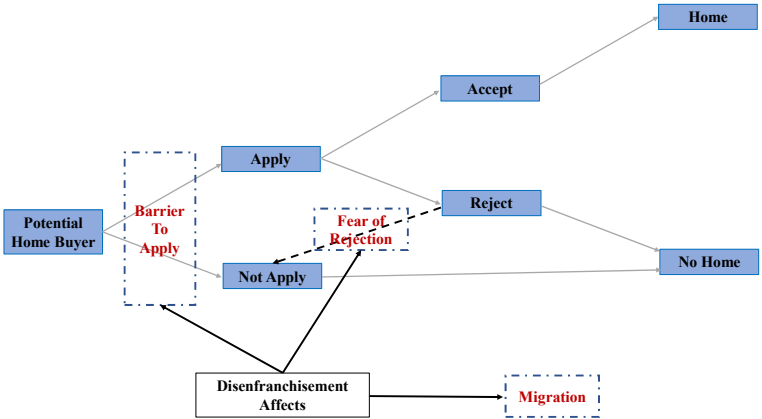
Framework

How can Disenfranchisement Effect Mortgage Applications?



Framework

How can Disenfranchisement Effect Mortgage Applications?



Overview

Institutional Details: The Voting Right Act of 1965

- **1965:** The growing racial disparity in the US led to the emergence of the American Civil Rights and VRA was enacted

Institutional Details: The Voting Right Act of 1965

- **1965:** The growing racial disparity in the US led to the emergence of the American Civil Rights and VRA was enacted
  - Section 2 of VRA eliminated all voting restrictions

Institutional Details: The Voting Right Act of 1965

- **1965:** The growing racial disparity in the US led to the emergence of the American Civil Rights and VRA was enacted
  - Section 2 of VRA eliminated all voting restrictions
  - Section 5 of VRA empowered federal authorities with oversight powers to protect minorities' right to vote
  - Preclearance under Section 5 covered only certain areas Map

"the goddamndest, toughest voting rights act"

- President Lyndon B. Johnson

Institutional Details: The Voting Right Act of 1965

- **1965:** The growing racial disparity in the US led to the emergence of the American Civil Rights and VRA was enacted
  - Section 2 of VRA eliminated all voting restrictions
  - Section 5 of VRA empowered federal authorities with oversight powers to protect minorities' right to vote
  - Preclearance under Section 5 covered only certain areas Map

"the goddamndest, toughest voting rights act"

- President Lyndon B. Johnson

- **2013:** In a 5-to-4 US Supreme Court ruled Section 5 to be unconstitutional

"[t]hrowing out preclearance when it has worked and is continuing to work to stop discriminatory changes is like throwing away your umbrella in a rainstorm because you are not getting wet."

- Justice Ruth Bader Ginsburg (Shelby v. Holder 2013)

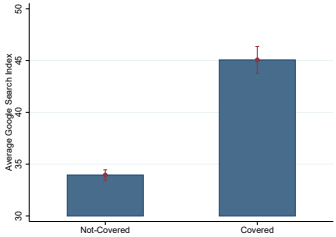
Ramification of the repeal of VRA

- The removal of protections provided under Section 5 on electoral process was immediate.

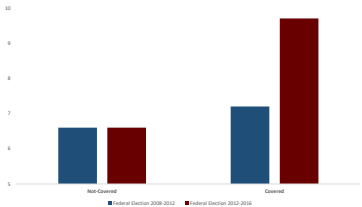
Ramification of the repeal of VRA

- The removal of protections provided under Section 5 on electoral process was immediate.
  - Within 24 hours of the ruling, TX announced and passed strict photo identification law that had previously been rejected by the US Attorney General under preclearance.
  - Other states like MS, AL & NC also passed such strict laws
  - NC curtailed early voting; eliminated same day registration; restricted pre-registration; ended annual voter registration drives
- The voting restrictions implemented post Shelby ruling affects minorities disproportionately: *"... the new provisions target African Americans with almost surgical precision ... "* (US Court of Appeals for the Fourth Circuit Court in the case of NAACP v McCrory)

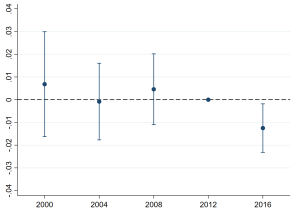
Salience of the repeal of VRA



(a) Google Trend for VRA



(b) Voter Purging

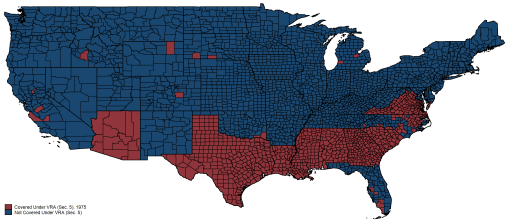


(c) Voter Turnout

Overview

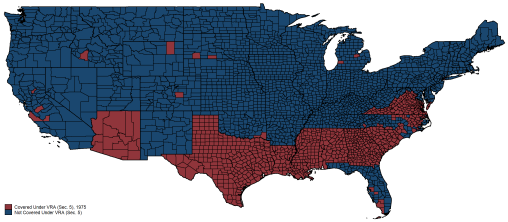
Empirical Strategy

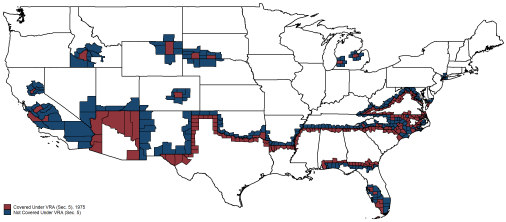
- Sample: Adjacent county pairs that straddle Section 5 county boundaries



Empirical Strategy

- Sample: Adjacent county pairs that straddle Section 5 county boundaries





Regression Specification

- **Baseline specification:** Geographic RD Approach á la Dell (2010)
  - Unit: race (r); census tract (s) in county (c); county (c) at boundary segment (b); time (t)

$$y_{rs(c)t} = \beta\ Black_r \times Treat_c \times Post\text{-}Shelby_t + \alpha_{rs} + \alpha_{st} + \alpha_{brt} + f(x_{s(c)}, y_{s(c)}) + \varepsilon_{rs(c)t}$$

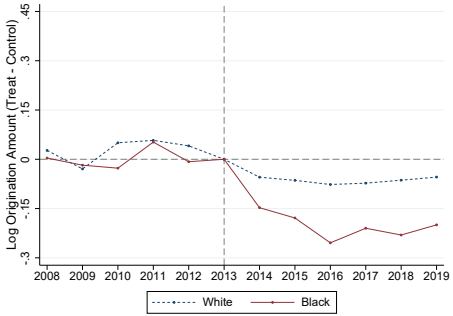
- **Dynamic specification:** DID Approach
  - Unit: race (r); county (c) in county-pair (p) at time (t)

$$y_{rct} = \sum_{k=2008, k\neq 2013}^{2019} \beta_k \cdot Black_r \times Treat_c \times 1(t = k) + \alpha_{rc} + \alpha_{ct} + \alpha_{prt} + \varepsilon_{rct}$$

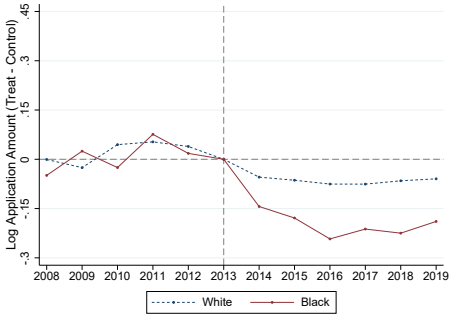
Overview

Univariate Results

Primary Data and Trend



(a) Origination



(b) Application

Geographic RD: Mortgage Origination and the Repeal of VRA

$$y_{rs(c)t} = \beta\ Black_r \times Treat_c \times Post\text{-}Shelby_t + \alpha_{rs} + \alpha_{st} + \alpha_{brt} + f(x_{s(c)}, y_{s(c)}) + \varepsilon_{rs(c)t}$$

	(1)	(2)	(3)	(4)	(5)
	Origination		Applications		Denial Rate
	Amount	Number	Amount	Number	
Black x Treat x Post	-0.1466***	-0.0828***	-0.1261***	-0.0695***	0.0004
	(0.0322)	(0.0251)	(0.0313)	(0.0246)	(0.0054)
Tract x Year	Yes	Yes	Yes	Yes	Yes
Tract x Race	Yes	Yes	Yes	Yes	Yes
Boundary x Year x Race	Yes	Yes	Yes	Yes	Yes
2D Local Linear Polynomials	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0.8634	0.8868	0.8619	0.8864	0.4180
# Obs	346,825	346,825	346,825	346,825	346,825

- Mortgage origination decline by 14%

Geographic RD: Mortgage Applications and the Repeal of VRA

$$y_{rs(c)t} = \beta\ \textit{Black}_r \times \textit{Treat}_c \times \textit{Post-Shelby}_t + \alpha_{rs} + \alpha_{st} + \alpha_{brt} + f(x_{s(c)}, y_{s(c)}) + \varepsilon_{rs(c)t}$$

	(1)	(2)	(3)	(4)	(5)
	Origination		Applications		Denial Rate
	Amount	Number	Amount	Number	
Black x Treat x Post	-0.1466***	-0.0828***	-0.1261***	-0.0695***	0.0004
	(0.0322)	(0.0251)	(0.0313)	(0.0246)	(0.0054)
Tract x Year	Yes	Yes	Yes	Yes	Yes
Tract x Race	Yes	Yes	Yes	Yes	Yes
Boundary x Year x Race	Yes	Yes	Yes	Yes	Yes
2D Local Linear Polynomials	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0.8634	0.8868	0.8619	0.8864	0.4180
# Obs	346,825	346,825	346,825	346,825	346,825

- Mortgage applications decline by 13%

Geographic RD: Mortgage Denial Rates and the Repeal of VRA

$$y_{rs(c)t} = \beta\ \textit{Black}_r \times \textit{Treat}_c \times \textit{Post-Shelby}_t + \alpha_{rs} + \alpha_{st} + \alpha_{brt} + f(x_{s(c)}, y_{s(c)}) + \varepsilon_{rs(c)t}$$

	(1)	(2)	(3)	(4)	(5)
	Origination		Applications		Denial Rate
	Amount	Number	Amount	Number	
Black x Treat x Post	-0.1466***	-0.0828***	-0.1261***	-0.0695***	0.0004
	(0.0322)	(0.0251)	(0.0313)	(0.0246)	(0.0054)
Tract x Year	Yes	Yes	Yes	Yes	Yes
Tract x Race	Yes	Yes	Yes	Yes	Yes
Boundary x Year x Race	Yes	Yes	Yes	Yes	Yes
2D Local Linear Polynomials	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0.8634	0.8868	0.8619	0.8864	0.4180
# Obs	346,825	346,825	346,825	346,825	346,825

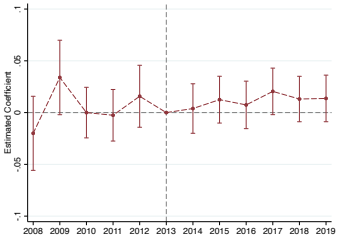
- Denial Rates do not change

Dynamic DID: Mortgages and the Repeal of VRA

$$y_{rct} = \sum_{k=2008, k\neq 2013}^{2019} \beta_k \cdot Black_r \times Treat_c \times 1(t = k) + \alpha_{rc} + \alpha_{ct} + \alpha_{prt} + \varepsilon_{rct}$$

(a) Origination

(b) Application



(c) Denial Rate

- Three takeaways: (1) Little pre-trend, (2) precise timing, and (3) little reversion

Robustness

- Non-spuriousness of the results ▸ Placebo Test
- False treatment and control groups ▸ Falsification Test
- Regression discontinuity using the eligibility for VRA ▸ Regression Discontinuity
- Spillover from the treated group to the control group ▸ Hinterland
- Similar result for other minority like hispanics ▸ Hispanic

Overview

Migration Channel

Migration is unaffected

$$y_{ct} = \beta \cdot \text{Black Share}_c \times \textit{Treat}_c \times \textit{Post}_t + \textit{Treat}_c \times \textit{Post}_t + \alpha_c + \alpha_{pt} + \sum \text{Black Share} \times 1(t = k) + \varepsilon_{ct}$$

	(1)	(2)	(3)	(4)
	Ln(Outflow)	Ln(Inflow)	Ln($\frac{Outflow}{Inflow}$)	$\frac{Outflow - Inflow}{Pop_{2010}}$
Treat × Post × Black Share	-0.0065	-0.0027	-0.0037	0.0571
	(0.0106)	(0.0164)	(0.0129)	(0.0480)
Treat × Post	0.0124	0.0133	-0.0008	0.0155
	(0.0107)	(0.0124)	(0.0106)	(0.0556)
Countypair X Year FE	Yes	Yes	Yes	Yes
County FE	Yes	Yes	Yes	Yes
Black Share X Year FE	Yes	Yes	Yes	Yes
Adjusted R^2	0.9915	0.9890	0.4363	0.6043
# Obs	6387	6387	6387	6387

Fear of Rejection

Flight of Black Applications to Black Friendly Lenders

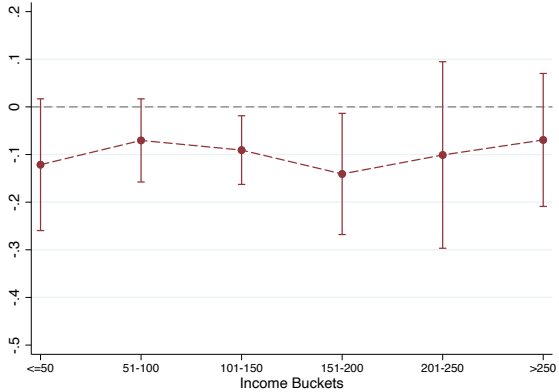
Definition

Dep Var: Applications	(1)	(2)	(3)	(4)	(5)	(6)
	Non-Black lender		Black lender		Higher Interaction Term	
	Amount	Number	Amount	Number	Amount	Number
Black x Treat x Post	-0.1500***	-0.0980***	0.0923	0.1300**		
	(0.0357)	(0.0278)	(0.0784)	(0.0641)		
Black x Treat x Post x Black Lender					0.2090**	0.2037***
					(0.0876)	(0.0714)
Tract x Year	Yes	Yes	Yes	Yes		
Tract x Race	Yes	Yes	Yes	Yes		
Boundary x Year x Race	Yes	Yes	Yes	Yes		
Tract x Year x Race					Yes	Yes
Tract x Year x Black Lender					Yes	Yes
Tract x Race x Black Lender					Yes	Yes
Boundary x Year x Race x Black Lender					Yes	Yes
Adjusted R^2	0.8565	0.8796	0.7856	0.788	0.9262	0.9347
# Obs	274,000	274,000	147,000	147,000	350,227	350,227

- Results indicate the fear of rejection is the primary driver
  - Changes in borrowing constraints likely to have homogeneous effect on application propensity across bank-type

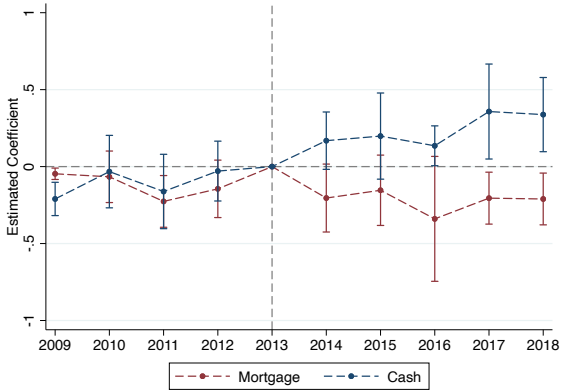
Fear of Rejection

Effect homogeneous across income



- The effect on application propensity is homogeneous across income
  - Evidence against borrowing constraint

Housing Transaction through Mortgages and Cash



- Evidence of substitution from mortgages to cash
  - Consistent with the fear of rejection

The Fear is Real: Effect on Warmth towards Black Americans

Warmth towards Black Americans Declines

$$y_{i(s)t} = \beta \, Treat_s \times Post_t + \alpha_s + \alpha_{at} + \varepsilon_{i(s)t}$$

	(1)	(2)	(3)
Treat × *Post*	-4.6808***	-4.6335***	-4.3129**
	(1.6654)	(1.7080)	(1.7855)
State FE	Yes	Yes	Yes
Year FE	Yes		Yes
Age-Group× Year FE		Yes	
# Obs	3250	3250	133
R^2	0.0531	0.0605	0.6403
Sample	Respondent	Respondent	State

The Fear is Real: Effect on Black hate Crimes

Violent Hate Crimes against Black Americans Increase

$$y_{c(s)t} = \beta \mathit{Treat}_{c(s)} \times \mathit{Post}_t + \alpha_{c(s)} + \alpha_t + \varepsilon_{c(s)t}$$

	(1) OLS	(2) OLS	(3) Poisson	(4) Poisson	(5) OLS
Treat x Post	0.2244**	0.2914***	0.2173***	0.2601***	0.1611*
	(0.1002)	(0.1049)	(0.0690)	(0.0665)	(0.0966)
Sample	All States	Border States	All States	Border States	Border Counties
State/County FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
State FE Within R^2	0.02	0.04	-	-	0.01
# Obs	490	290	490	290	2090

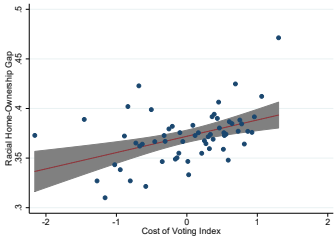
Overview

Real Effects

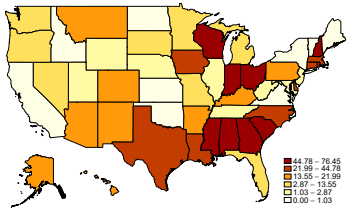
Decline in New Black Home-ownership

$$y_{rct} = \sum_{k=2008, k\neq 2013}^{2019} \beta_k \cdot Black_r \times Treat_c \times 1(t = k) + \alpha_{rc} + \alpha_{ct} + \alpha_{prt} + \varepsilon_{rct}$$

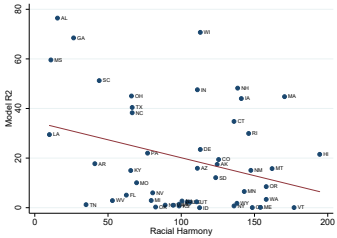
External Validity



(a) Average Relationship



(b) R^2 for States



(c) R^2 & Racial Harmony

- Positive Relation between COVI and racial homeownership gap
- COVI can explain 20% of total variation in the racial home-ownership gap
- Heterogeneity in R^2 related to racial harmony

Overview

Conclusion

- We identify the effect of electoral disenfranchisement of black Americans on their mortgage borrowing decisions

Conclusion

- We identify the effect of electoral disenfranchisement of black Americans on their mortgage borrowing decisions
- The effect is likely driven by an increased fear of rejection

Conclusion

- We identify the effect of electoral disenfranchisement of black Americans on their mortgage borrowing decisions
- The effect is likely driven by an increased fear of rejection
  - Migration of black borrowers to black banks
  - Effect constant across income groups
  - Substitution of mortgage by cash

Conclusion

- We identify the effect of electoral disenfranchisement of black Americans on their mortgage borrowing decisions
- The effect is likely driven by an increased fear of rejection
  - Migration of black borrowers to black banks
  - Effect constant across income groups
  - Substitution of mortgage by cash
- The real impact is manifested through a reduction in homeownership among black Americans

Conclusion

- We identify the effect of electoral disenfranchisement of black Americans on their mortgage borrowing decisions
- The effect is likely driven by an increased fear of rejection
  - Migration of black borrowers to black banks
  - Effect constant across income groups
  - Substitution of mortgage by cash
- The real impact is manifested through a reduction in homeownership among black Americans
- The results expand our understanding on the social and economic impact of changes in voting power

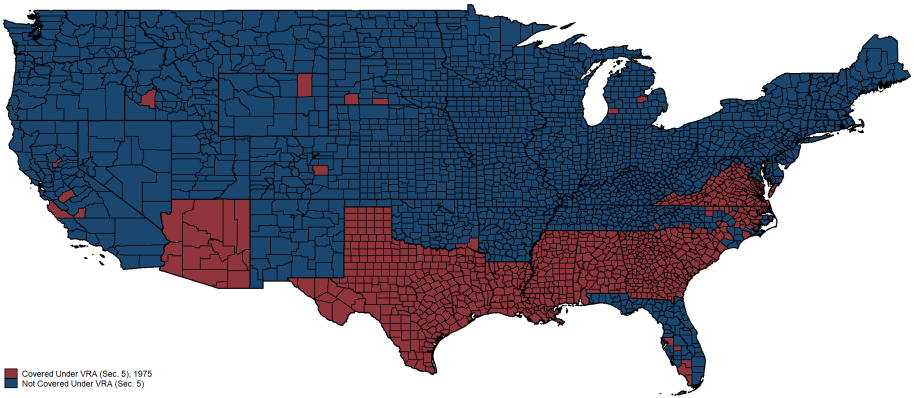
Conclusion

- We identify the effect of electoral disenfranchisement of black Americans on their mortgage borrowing decisions
- The effect is likely driven by an increased fear of rejection
  - Migration of black borrowers to black banks
  - Effect constant across income groups
  - Substitution of mortgage by cash
- The real impact is manifested through a reduction in homeownership among black Americans
- The results expand our understanding on the social and economic impact of changes in voting power
  - 50 years after the passage of VRA the ballot still needs protection

APPENDIX

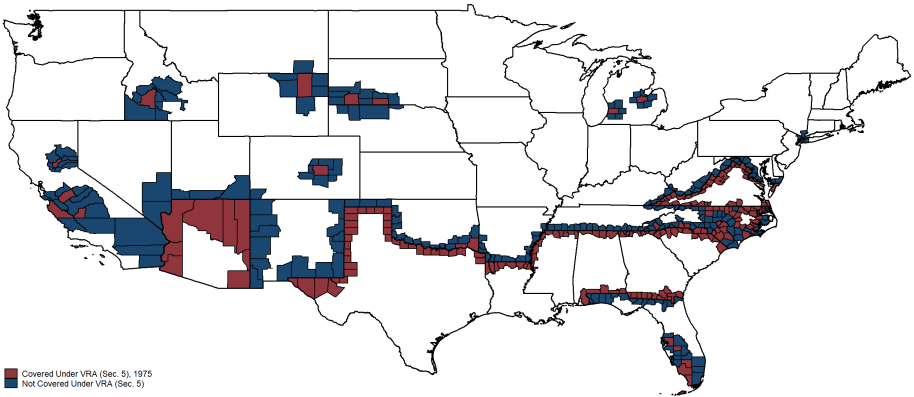
Map: VRA-Covered States and Counties

Back



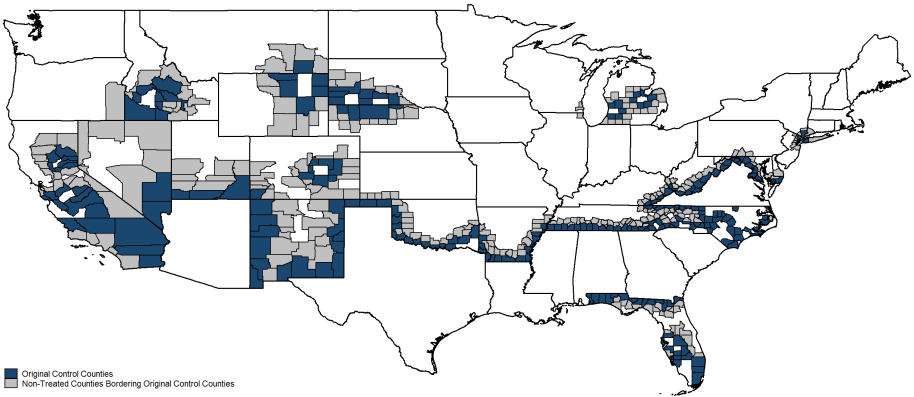
Map: Bordering Counties Used in Analysis

Back



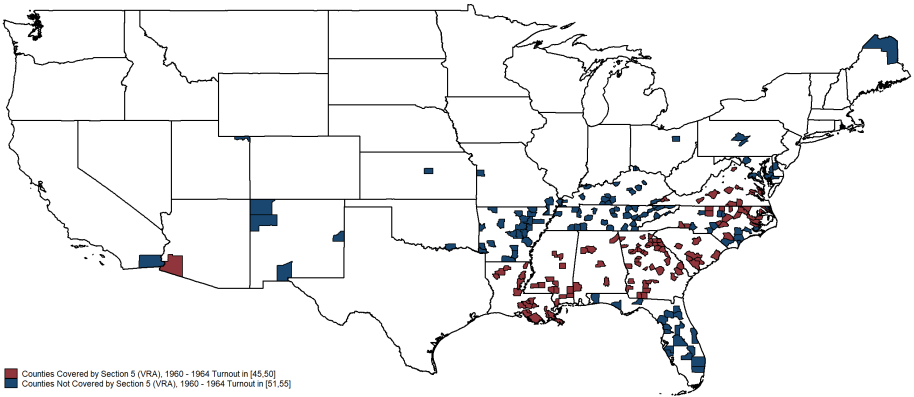
Map: False Treat and Control Counties

Back



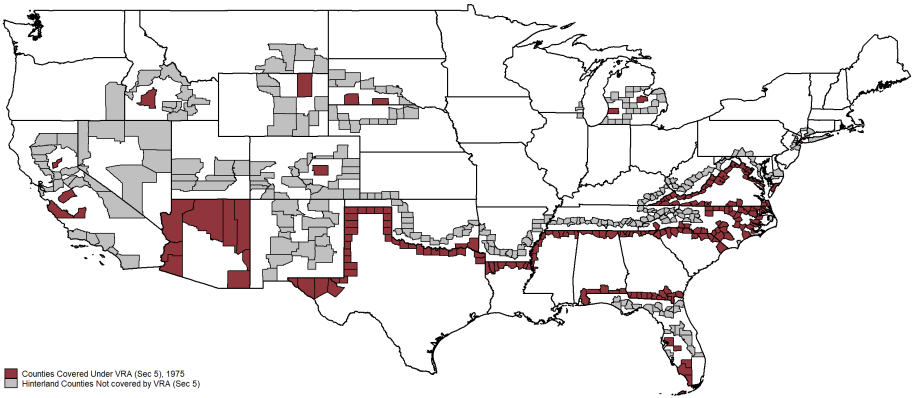
Map: Regression Discontinuity

Back



Map: Hinterland vs Treated Counties

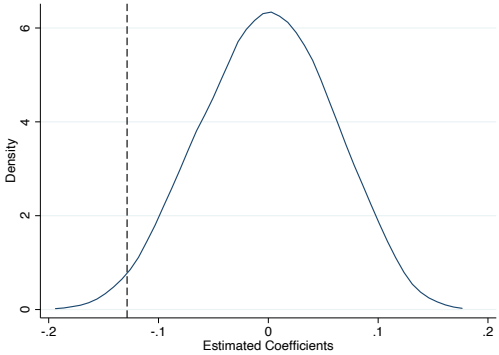
Back



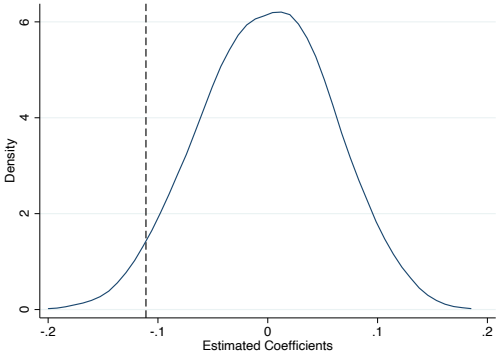
Robustness: Placebo Test

Back

$$y_{crt} = \beta \cdot Black_r \cdot Placebo\text{-}Treat_c \cdot Post_t + \alpha_{rc} + \alpha_{rt} + \alpha_{ct} + \varepsilon_{rct}$$



(a) Amount

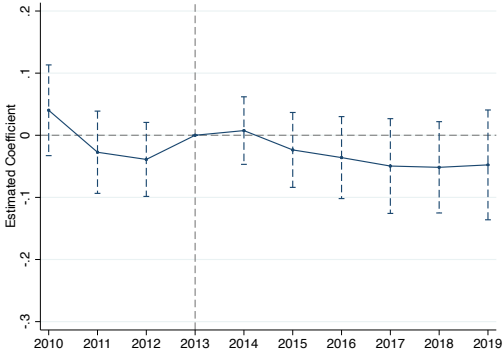


(b) Number

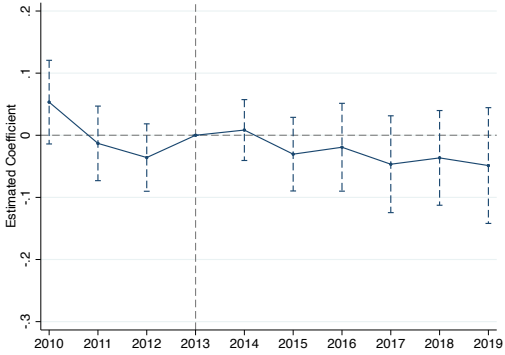
- Treatment status is randomly assigned 3,000 times.
- The baseline point estimates leave 1.3% and 3.1% of the estimated coefficients in figure (a) and

Robustness: Falsification Test

Map Back



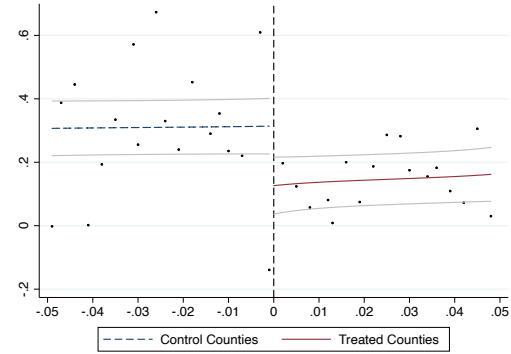
(a) Amount



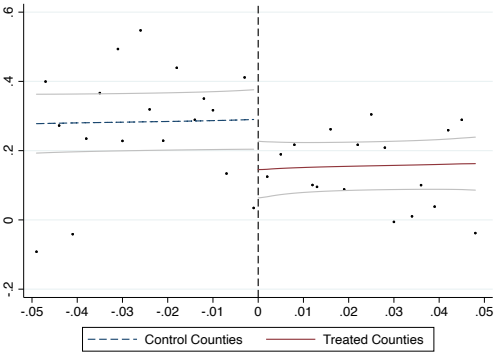
(b) Number

Robustness: Regression Discontinuity

Map Back



(a) Amount



(b) Number

- VRA coverage was not purely random: Counties with voter turnout less than 50% were subject to Section 5 of VRA
- Y-axis: the county-level mortgage origination growth for black Americans relative to white Americans from 2013 to 2016
- X-axis: 0.5 − the voter turnout in the 1964 Presidential election

Robustness: Regression Discontinuity

Back

$$g_{c,B,1316} - g_{c,W,1316} = \alpha + \beta \cdot Treat_c + \gamma_1 \cdot Turnout_c + \gamma_2 \cdot Treat_c \cdot Turnout_c + \varepsilon_c$$

$$y_{rct} = \beta \cdot Black_r \cdot Treat_c \cdot Post_t + \alpha_{rc} + \alpha_{rt} + \alpha_{ct} + \varepsilon_{rct}$$

	Regression Discontinuity		DDD Estimation	
	(1) Amount	(2) Number	(3) Amount	(4) Number
Treat	-0.2374**	-0.2049**		
	(0.1148)	(0.0896)		
Black x Treat x Post			-0.1446***	-0.1120***
			(0.0447)	(0.0420)
County x Year FE			Yes	Yes
County x Race FE			Yes	Yes
Race x Year FE			Yes	Yes
R^2	0.04130	0.04517	0.9890	0.9905
# Obs	164	164	6046	6046

Robustness: Mortgage Origination for Hispanic Americans and the Repeal of VRA

Back

	Total		Home Purchase		Refinancing	
	(1) Amount	(2) Number	(3) Amount	(4) Number	(5) Amount	(6) Number
Black x Treat x Post	-0.1424***	-0.1319***	-0.1278**	-0.1105*	-0.1280***	-0.1243***
	(0.0541)	(0.0477)	(0.0622)	(0.0614)	(0.0369)	(0.0352)
Hispanic x Treat x Post	-0.1104**	-0.0964*	-0.1122*	-0.0962*	-0.0916**	-0.0841**
	(0.0560)	(0.0503)	(0.0630)	(0.0555)	(0.0409)	(0.0376)
County x Year FE	Yes	Yes	Yes	Yes	Yes	Yes
County x Race FE	Yes	Yes	Yes	Yes	Yes	Yes
Race x Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Within R^2	0.0161	0.0172	0.0087	0.0082	0.0063	0.0086
# Obs	12,702	12,702	12,702	12,702	12,702	12,702

Robustness: Hinterland vs Treated Counties

Map Back

$$y_{rct} = \beta \cdot Black_r \cdot Treat_c \cdot Post_t + \alpha_{rc} + \alpha_{rt} + \alpha_{ct} + \varepsilon_{rct}$$

	Total		Home Purchase		Refinancing	
	(1) Amount	(2) Number	(3) Amount	(4) Number	(5) Amount	(6) Number
Black x Treat x Post	-0.2272***	-0.2245***	-0.1723***	-0.1516**	-0.1553***	-0.1624***
	(0.0536)	(0.0478)	(0.0593)	(0.0587)	(0.0489)	(0.0442)
County x Year FE	Yes	Yes	Yes	Yes	Yes	Yes
County x Race FE	Yes	Yes	Yes	Yes	Yes	Yes
Race x Year FE	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.9971	0.9970	0.9947	0.9946	0.9945	0.9951
#Obs	9365	9365	9365	9365	9365	9365

Voter Turnout Ratio

Back

Voter Turnout Ratio Declines for Black Americans

$$y_{c(s)t} = \beta \times \text{High Black}_c \times \textit{Treat}_c \times \textit{Post}_t + \alpha_c + \alpha_{st} + \varepsilon_{ct}$$

	(1)	(2)
Treat × Post	-0.0122***	0.0018
	(0.0045)	(0.0043)
Treat × *Post* × High Black		-0.0391***
		(0.0042)
County FE	Yes	Yes
State × Year FE		Yes
# Obs	1,275	1,269
R^2	0.9499	0.9687

Definition of Black Banks

Back

- **Black Lender:**
  - Lenders with its share of mortgage applications from black Americans greater than the 90th percentile during the period 2008-2013
  - These lenders are also classified by FDIC as banks for Black American Communities

Certificate Number	Name	City	State	Est. Date	2013 Total Assets ($ thou.)
20856	LIBERTY BANK & TRUST CO	NEW ORLEANS	LA	11/16/1972	547,984
8033	CITIZENS TRUST BANK	ATLANTA	GA	6/18/1921	387,410
33938	CAPITOL CITY BANK & TRUST CO	ATLANTA	GA	10/3/1994	286,761
35241	SOUTH CAROLINA CMTY BANK	COLUMBIA	SC	3/26/1999	67,203
22229	COMMONWEALTH NATIONAL BANK	MOBILE	AL	2/19/1976	59,613

Income Channel

Racial Wage Gap increases after VRA Repeal

$$Ln(Wage)_{i,c,t} = \beta Treat_c \times Post_t \times Black_i + \theta_{c,t} + \theta_{c,r} + \theta_{r,t} + \varepsilon_{i,c,t}$$

Sample	Estimate of β	# Obs	Within R^2
All Employees	-0.1012	4,247	0.0003
	(0.1051)		
Existing Employees	-0.0514	3,956	0.0001
	(0.1038)		
New Hires	-0.1129*	224	0.0001
	(0.0541)		
% Black Population $\in$ [0-20%)	0.0106	1,532	0.0000
	(0.2080)		
% Black Population $\in$ [20-39%)	-0.1280**	535	0.0007
	(0.0548)		
% Black Population $\in$ [40% +)	-0.4839***	2,180	0.0045
	(0.0015)		

Uncertainty Channel

Investment in Risky and Safe Assets

$$\text{Share Of People}_{srt} = \beta\ \textit{Black}_r \times \textit{Treat}_s \times \textit{Post}_t + \alpha_{st} + \alpha_{sr} + \alpha_{rt} + \varepsilon_{srt}$$

	All States		Bordering States	
	Risky (1)	Risk Free (2)	Risky (3)	Risk Free (4)
Black x Treat x Post	-0.0208**	0.0127**	-0.0188*	0.0131*
	(0.00902)	(0.00586)	(0.00937)	(0.00730)
State x Year FE	Yes	Yes	Yes	Yes
State x Race FE	Yes	Yes	Yes	Yes
Race x Year FE	Yes	Yes	Yes	Yes
Mean	.0691	.0254	.0677	.0231
Std.Dev	.1025	.0611	.1059	.0617
Within R^2	0.04	0.04	0.04	0.05
#Obs	306	210	220	170

Public Goods Channel

Capital Expenditure by Local Gvt declines in Black counties

$$LN(Exp_{ct}) = \beta\ Black_c \times Treat_c \times Post_t + \alpha_c + \alpha_{rt} + \varepsilon_{ct}$$

	(1) Total	(2) Education	(3) Health	(4) Utilities	(5) Others
Black x Treat x Post	-0.0937**	-0.0789	-0.6338**	-0.2568	-0.1009
	(0.0421)	(0.0714)	(0.2466)	(0.3664)	(0.0803)
Treat x Post	0.0417**	0.0577***	-0.1312	0.0438	-0.0038
	(0.0194)	(0.0175)	(0.1238)	(0.0878)	(0.0358)
County FE	Yes	Yes	Yes	Yes	Yes
Race-Year FE	Yes	Yes	Yes	Yes	Yes
# Obs	2,542	2,542	2,542	2,542	2,542
Within R^2	0.02	0.01	0.03	0.001	0.0017