

The GI Bill and Black-White Wealth Disparities

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The GI Bill Transformed American Society

7.8 million, took advantage of the education benefits under the first G.I. Bill of Rights. **It was this bill That helped make higher education such an integral part of society.**

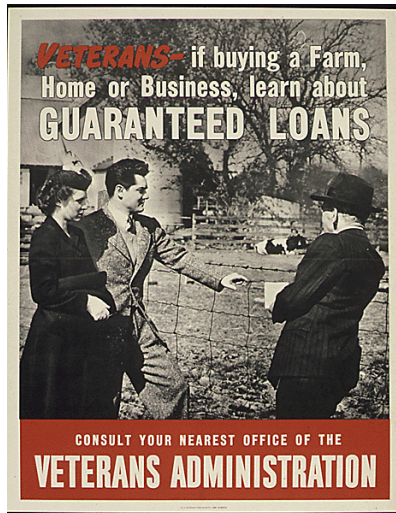
– New York Times (2005)

“The GI Bill of Rights – and the enthusiastic response to it on the part of America’s veterans – signaled the shift to the knowledge society.

Future historians may consider it **the most important event of the 20th century.**”

– Peter F. Drucker (1993)

The GI Bill: Race-Neutral Affirmative Action?



The GI Bill of 1944

- Benefits for 16M veterans: Subsidies for
 - Farm/business (0.2M veterans)
 - Homes (5.0M veterans)
 - College (2.3M veterans) or vocational programs (5.6M veterans)
- Despite being *de-jure* race-neutral, access was *de-facto* unequal

Example: Suburbs for Veterans (Levittown, NY)



- “[A]lthough Levittown was built for WWII veterans [...], **black American soldiers were turned away.**” (NYT, 1997)
- While a home cost \$8,000 in the 1940s, the GI Bill reduced the cost to \$400 (\$4,500 today – the median price today is \$560,000)

This Project

Question: Did GI Bill exacerbate the racial wealth gap?

Empirical Strategies:

① Effect on existing generation

- Cohort-design: Quarter of birth → Veteran status (Bound & Turner 2002)
- RDD: Quarter of birth (IV) → Veteran status (Fetter 2013)

② Intergenerational effect

- RDD: Quarter of birth (IV) → Father's veteran status **New**

Main Data:

- Census (1940-2010): Home ownership, veteran status, quarter/year of birth

Preview of Results

- GI Bill increased home ownership of young white (but not Black) men
 - Gap grew by 8ppts. (60%) for youngest veterans (age 32 in 1960)
 - ⇒ **Widening of Black-white gap in home ownership**
- GI Bill's positive effect on white families wealth persists in 2nd generation
 - ⇒ **Long-lasting increase in Black-white gap in home ownership**

① Long-Run Effects of Federal Policy

- Social Security (Fetter et al. 2021)
- GI Bill
 - Home ownership (Fetter 2013)
 - Education (Bound and Turner 2002, Stanley 2003, Page 2006)

② Racial Disparities and Federal Policy Pre-1960s (Katznelson 2005)

- GI Bill (Black and Turner 2002, Eden 2022)
- Minimum Wages (Derenoncourt and Montialoux 2021)
- Employment discrimination (Collins 2001, Aneja and Xu 2021)

Main Outcome: Home Ownership

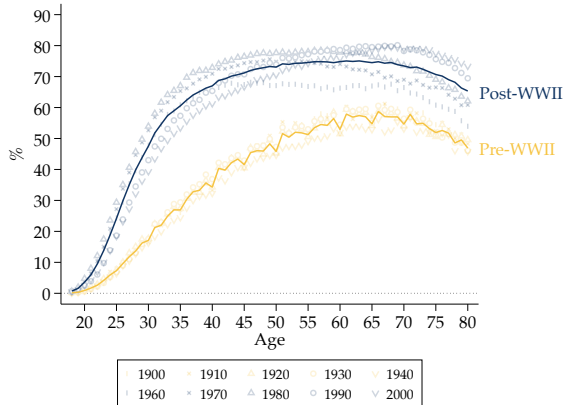


Source: The Beat Museum

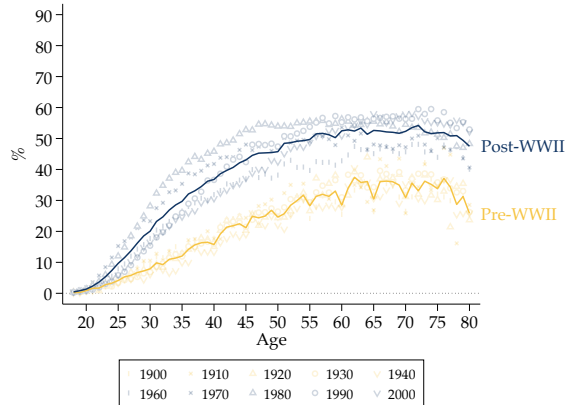
- Essential component of new American middle class
- GI Bill created first suburbs (Levittown, PA)
- Census only contains owner occupation → assign ownership to household head (Fetter 2014)

Massive Rise in Home Ownership After WWII

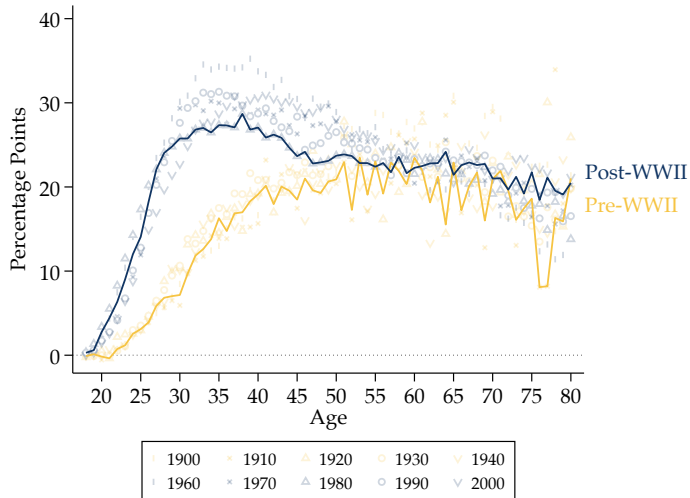
White Men



Black Men

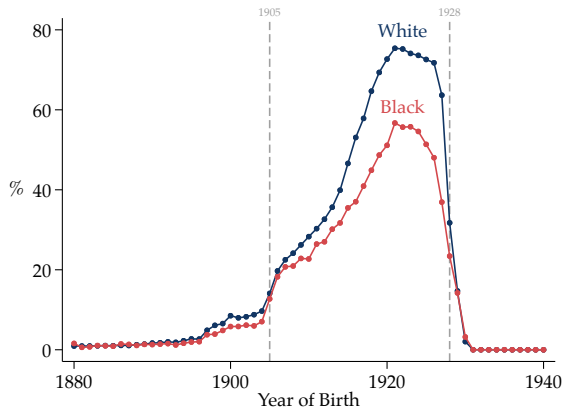


Widening Black-White Gap in Home Ownership



Is the Rise in Home Ownership Driven by GI Bill?

WWII Veterans in % of Male Population



①

Cohort-design

Use age variation in WWII service

②

RDD

Use age variation in WWII service due to service eligibility criteria

- Min. age for service: 18 (17 with parental consent) → 1928 RD
- Selective Training and Service Act: Men ages 21-35 must register for draft (later 18-45) → 1905 RD

Cohort-Design (Bound & Turner 2002)

OLS: $\overline{Y}_{t,qob} = \alpha + \beta \cdot \overline{Vet}_{t,qob} + \tau \cdot qob + \varepsilon_{t,qob}$

- $\overline{Y}_{t,qob}$: Average home ownership rate of cohort born in qob
- $\overline{Vet}_{t,qob}$: Average veteran status of cohort born in qob
- qob : Year-specific quarter of birth

IV: $\overline{Y}_{t,qob} = \alpha + \beta \cdot \widehat{\overline{Vet}}_{t,qob} + \tau \cdot qob + \varepsilon_{t,qob}$
 $\overline{Vet}_{t,qob} = a + b \cdot \mathbb{I}\{qob > c\} + d \cdot qob + e_{t,qob}$

- c : Cutoff (Q3-1927)

Effect of GI Bill on 1923-1929 Cohort

Effect of GI Bill on Home Ownership in 1960

	White Mean: 0.60		Black Mean: 0.26	
OLS: Veteran	0.07*** (0.01)	0.19*** (0.02)	0.06 (0.04)	0.19*** (0.06)
IV: Veteran	0.07*** (0.01)	0.18*** (0.02)	-0.04 (0.05)	-0.09 (0.14)
WWII Veterans Only	Y	N	Y	N
Observations	28	28	28	28

Veteran status for GI Bill purposes (WWII, Korea). All regressions control for linear time trends.

Effect of GI Bill on 1927-1929 Cohort

Effect of GI Bill on Home Ownership in 1960

	White Mean: 0.54		Black Mean: 0.21	
OLS: Veteran	0.07*** (0.02)	0.10** (0.04)	-0.02 (0.13)	0.02 (0.12)
IV: Veteran	0.08** (0.03)	0.09** (0.04)	-0.46 (0.35)	-0.42 (0.30)
WWII Veterans Only	Y	N	Y	N
Observations	12	12	12	12

Veteran status for GI Bill purposes (WWII, Korea). All regressions control for linear time trends.

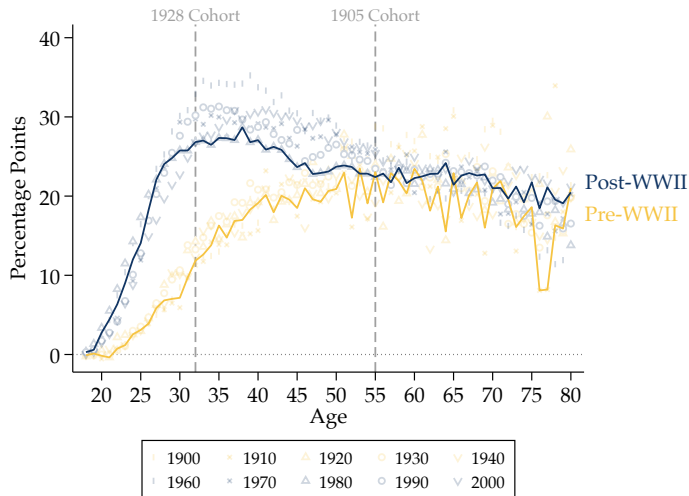
Effect of GI Bill on 1927-1929 Cohort – Individual-Level

Effect of GI Bill on Home Ownership in 1960

	White Mean: 0.54		Black Mean: 0.21	
OLS: Veteran	0.09*** (0.00)	0.09*** (0.00)	0.02*** (0.01)	0.04*** (0.01)
IV: Veteran	0.10** (0.05)	0.11** (0.05)	-0.40 (0.35)	-0.36 (0.31)
WWII Veterans Only	Y	N	Y	N
Observations	149,635	149,635	16,011	16,011

Veteran status for GI Bill purposes (WWII, Korea). All regressions control for linear time trends.

RDD: Causal Effect of GI Bill on Two Cohorts



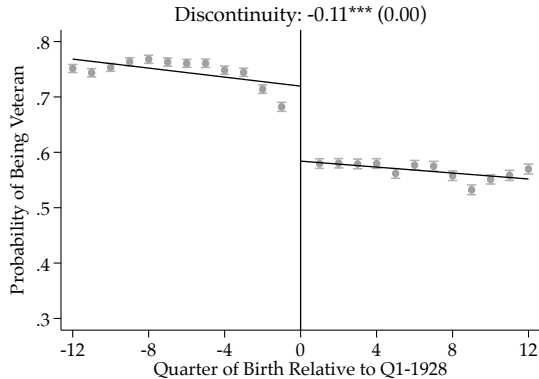
RDD Using Quarter of Birth

$$Y_{it} = \alpha + \beta \cdot \mathbb{I}[qob_i < c] + \gamma \cdot (qob_i - c) \cdot \mathbb{I}[qob_i < c] + \delta \cdot (qob_i - c) \cdot \mathbb{I}[qob_i > c] + \lambda X_{it} + \varepsilon_{it}$$

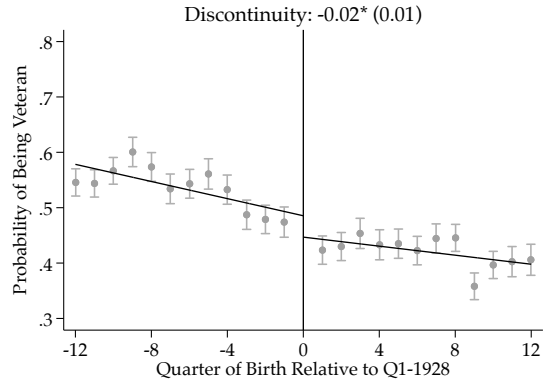
- Y_{it} : Home ownership
- c : Cutoff (Q1-1905 or Q1-1928)
- qob_{it} : Year-specific quarter of birth
- X_{it} : FEs for state & quarter of birth

1st Stage: Quarter of Birth \Rightarrow Veteran Status

White Men

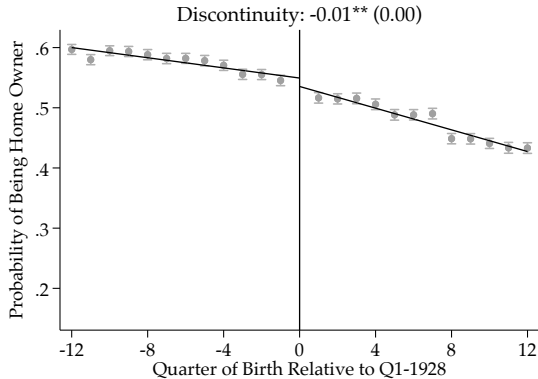


Black Men

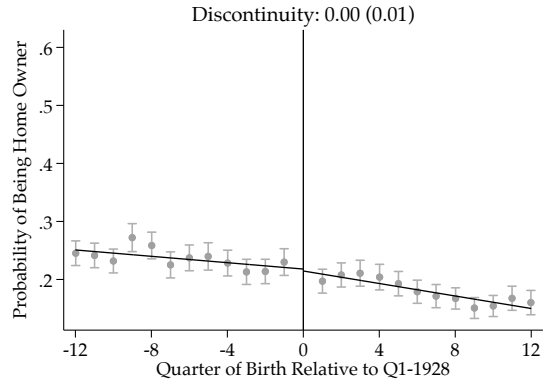


Reduced Form: Quarter of Birth \Rightarrow Home Ownership

White Men



Black Men



IV Estimates: GI Bill Widened Racial Gap in Home Ownership

Effect of GI Bill on Home Ownership in 1960 – RD-IV Estimates

	All Mean: 0.50		White Mean: 0.53		Black Mean: 0.21	
1928-RD: Veteran	0.08*** (0.03)		0.08*** (0.03)	0.08*** (0.03)	-0.08 (0.35)	-0.08 (0.34)
State of Birth FEs	N		N	Y	N	Y
Observations	343,047		309,362	309,362	33,685	33,685

All regressions control for quarter of birth FEs and pre- and post-RD trends. First column controls for race FEs.

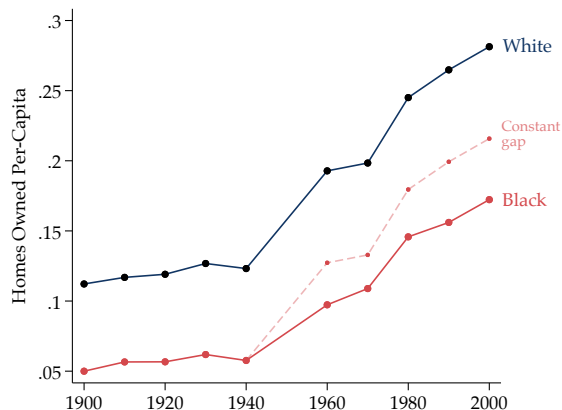
IV Estimates: GI Bill Had No Effect On Older Cohorts

Effect of GI Bill on Home Ownership in 1960 – RD-IV Estimates

	All Mean: 0.65	White Mean: 0.67	Black Mean: 0.41		
1905-RD: Veteran	-0.09 (0.09)	-0.11 (0.10)	-0.02 (0.22)	-0.00 (0.37)	-0.07 (0.21)
State of Birth FEs	N	N	Y	N	Y
Observations	262,282	240,105	240,105	22,177	22,177

All regressions control for quarter of birth FEs and pre- and post-RD trends. First column controls for race FEs.

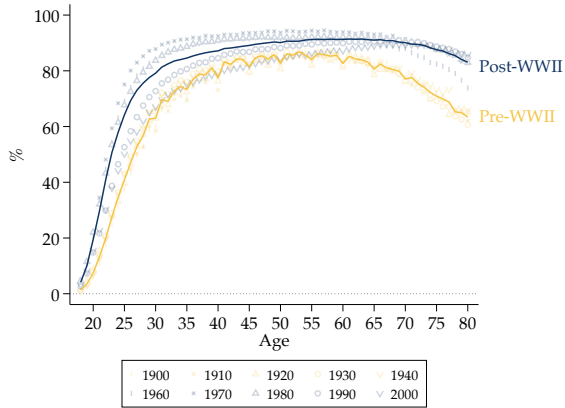
Interpretation: Shift Towards Single-Generation Households



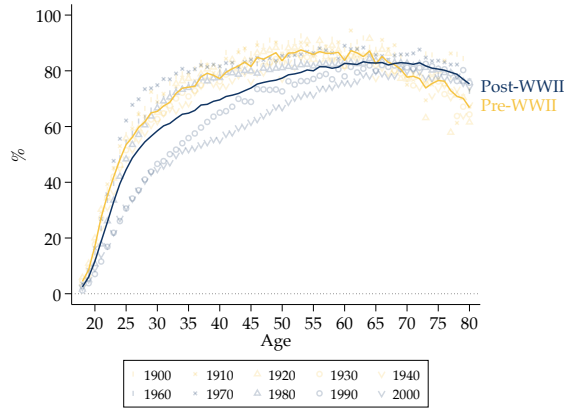
- Increase in home ownership among youngest veterans (age 32 in 1960)
- Number of houses per-capita ↑
- Permanent transition from multi- to single-generation households

Interpretation: Shift Towards Single-Generation Households

White Men Who Are Household Heads



Black Men Who Are Household Heads

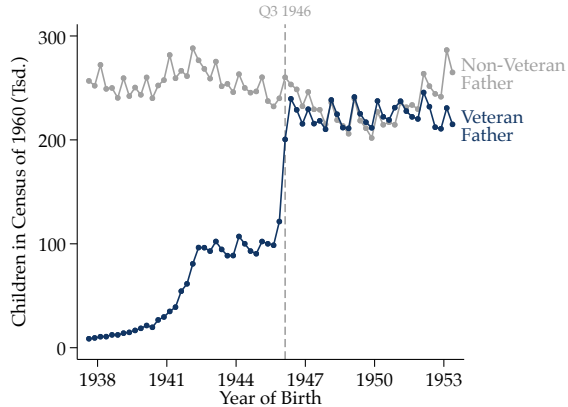


► Family Size

Recap: GI Bill's Effect On Existing Generations

- GI Bill increased ownership among young white (but not Black) veterans
⇒ Widening B-W gap in home ownership
- No effect on older cohorts
- Consistent with shift towards single-generational households afforded for by surging stock of homes
- **Next:** What was the long-run intergenerational effect of the GI Bill?

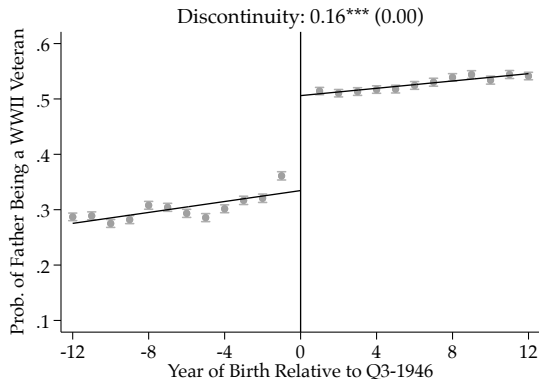
Intergenerational Effects of the GI Bill



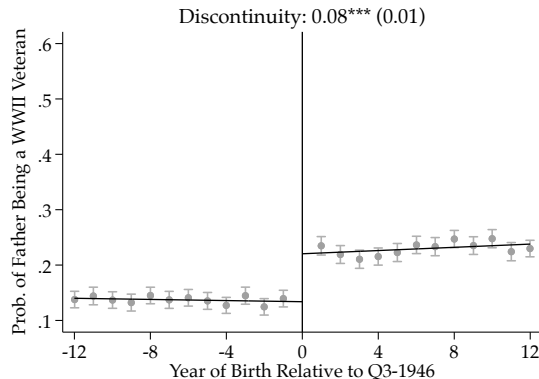
- Baby boom after WWII (600K additional births per year)
 - Driven by returning veterans
- ⇒ To assess intergenerational effect of GI Bill, compare people born before/after Q3 1946 **New**

First Stage: Born After Q3 1946 \Rightarrow Veteran Father

Veteran Father (1960): White Men

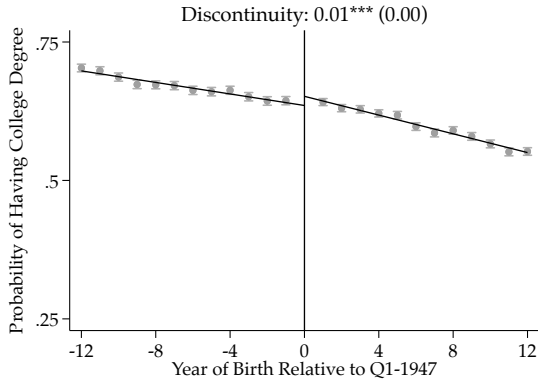


Veteran Father (1960): Black Men

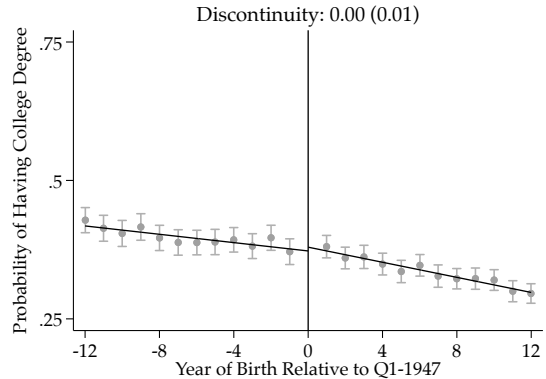


Reduced Form: Born After Q3 1946 \Rightarrow Home Ownership

Home Ownership (1980): White Men

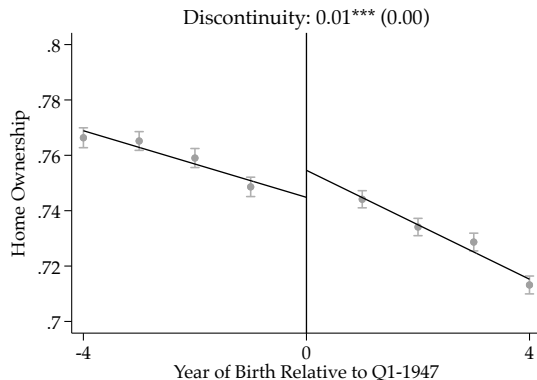


Home Ownership (1980): Black Men

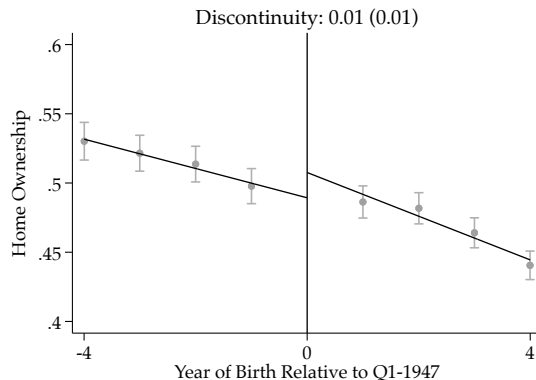


Reduced Form: Born After Q3 1946 \Rightarrow Home Ownership

Home Ownership (2000): White Men



Home Ownership (2000): Black Men



Recap: GI Bill's Intergenerational Effect

- GI Bill had lasting intergenerational effect on Americans' education and wealth
- Positive effect only for white (but not Black) families
 - ⇒ Long-run increase in B-W gap

New bill would provide GI Bill benefits to descendants of Black World War II vets

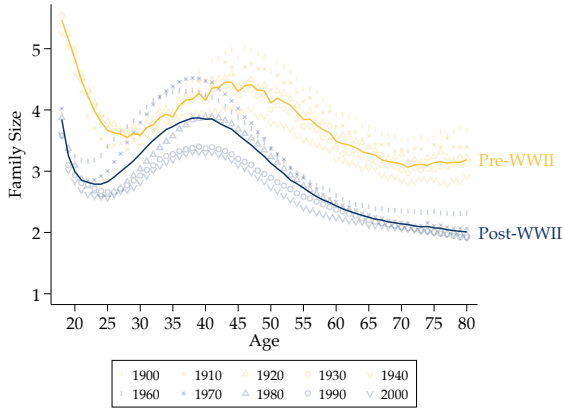
The measure would provide families of these veterans a transferable benefit that could be used to obtain housing, attend college or start a business.

NBC News, Nov. 11, 2021

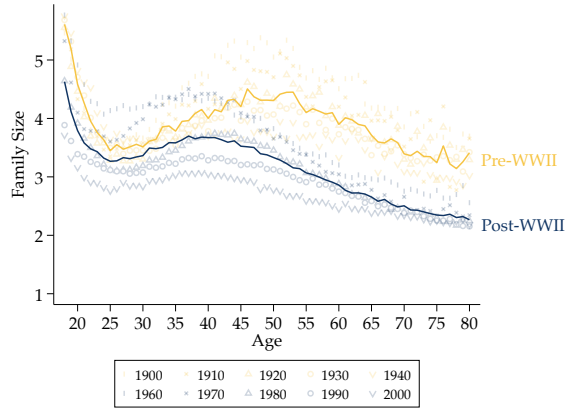
Thank you.

Interpretation: Shift Towards Single-Generation Households

White Men's Family Size



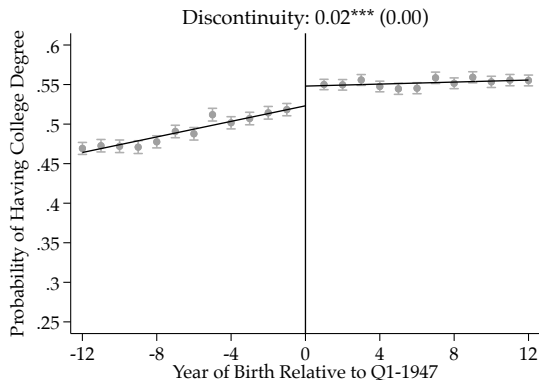
Black Men's Family Size



► Back

Reduced Form: Born After Q3 1946 \Rightarrow College

College (1980): White Men



College (1980): Black Men

