Black Gold: The Effect of Wealth on Descendants of the Enslaved

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Introduction: Racial Wealth Disparities

- The Black-white gap in wealth is one of the largest and most persistent racial disparities in the US.
  - Today, wealth of Black Americans is less than 20 percent of wealth of white Americans on average.
- Recent research argues that the majority of this gap can be traced back to the initial difference in wealth at the fall of slavery in 1865 (Derenoncourt *et al.*, 2023)
- Short-term wealth shocks to descendants of the enslaved may have spurred a virtuous cycle of generational wealth accumulation
- On other hand, money may have dissipated relatively quickly
  - Wealth shocks often have modest impact for other groups. Particular reasons for this group may include worse access to financial institutions (Stein & Yannelis, 2020), racial oppression (Althoff & Reichardt, 2024) and others.

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Overview

Overarching Question: Can short-term wealth shocks narrow racial wealth disparities, long-term?

Strategy: I leverage quasi-random oil discoveries on Black-owned land in the early 1900s to study how large positive wealth shocks may have affected Black economic progress in the short and long-term.

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Overarching Question: Can short-term wealth shocks narrow racial wealth disparities, long-term?

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Overview: Novel microdata

1. Microdata on nearly 7,000 Black landowners in greater Tulsa area during early 1900s

2. Geo-data on the one million acres of land owned by the above landowners

3. Universe of oil-producing wells in Oklahoma, their locations and dates of completion

Overview: Positive wealth shocks have positive effects on the treated first generation

In the first two decades following the discovery, Freedmen who find oil:

- attend school at higher rates (children)
- have higher status occupations (adults)
- own their homes at higher rates

By 1940:

- higher rates of high school graduation and even college-going
- evidence of greater investment into fewer children (quantity/quality tradeoff)

Possible mechanisms: Productive investments into migration and into education.

Contribution to Literatures

- Effect of weath shocks often transient
  - Effect on education and health modest (Cesarini *et al.*, 2016; Bleakley & Ferrie, 2016; Ager *et al.*, 2021; Hornbeck & Keniston, 2024)
  - Effect on labor supply seems to depend on the population (Cesarini *et al.*, 2017; Golosov *et al.*, 2021; Banerjee *et al.*, 2017)
- Scholars skeptical that land or wealth transfers to emancipated people could have had any equalizing impact (Higgs, 2008; Woodman, 1977; Woodman, 2001; Engerman, 1982; Foner, 1981; Ransom, 2005)
- However, land transferred to people once enslaved by Cherokee Indians had positive effects on outcomes of their descendants (Miller, 2020)
- Prevailing thesis in developing countries is that one-time policies can have permanent effects if they lift people out of the "poverty traps" (Balboni *et al.*, 2022)

Overview

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Historical Context: Pre-Allotment

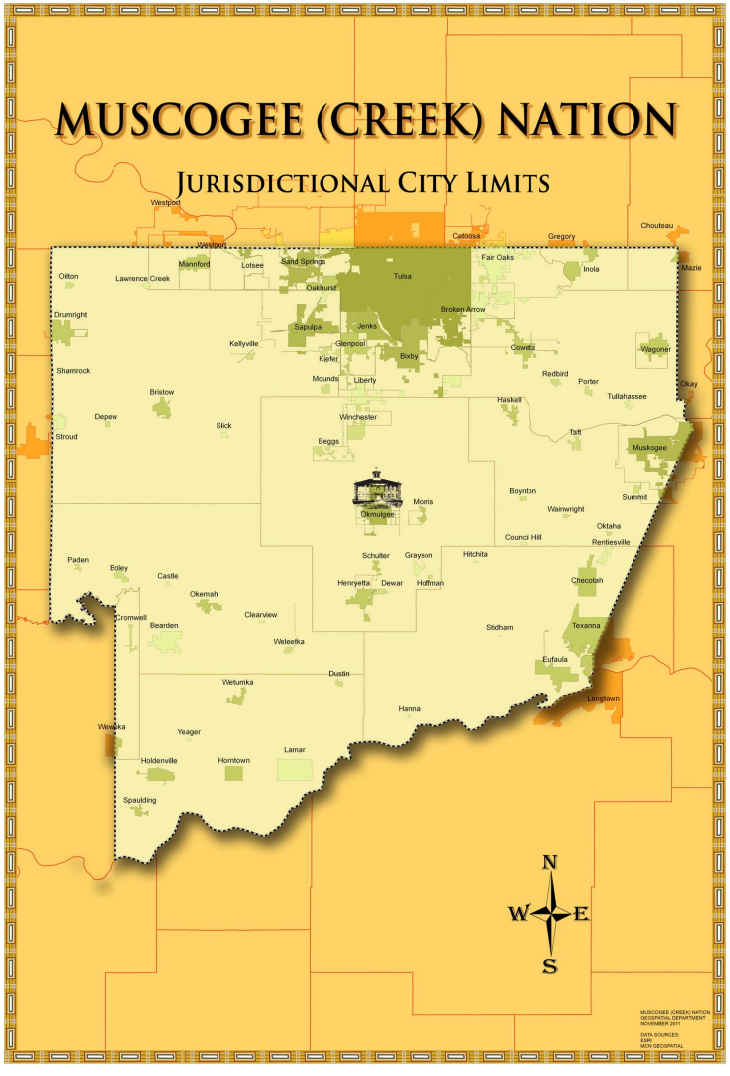
Pre-1830	Creek Indians live in present-day Alabama, Georgia. Some enslave Africans
1830	US Gov forcibly moves Creek west during Trail of Tears. Creeks bring the enslaved with them ▸ Oklahoma Map
1865	Civil War ends slavery. Many formerly enslaved people, known as "Freedmen," remain in Creek Nation and become Creek citizens
1898	Curtis Act: rules that Creek Nation must undergo "allotment"

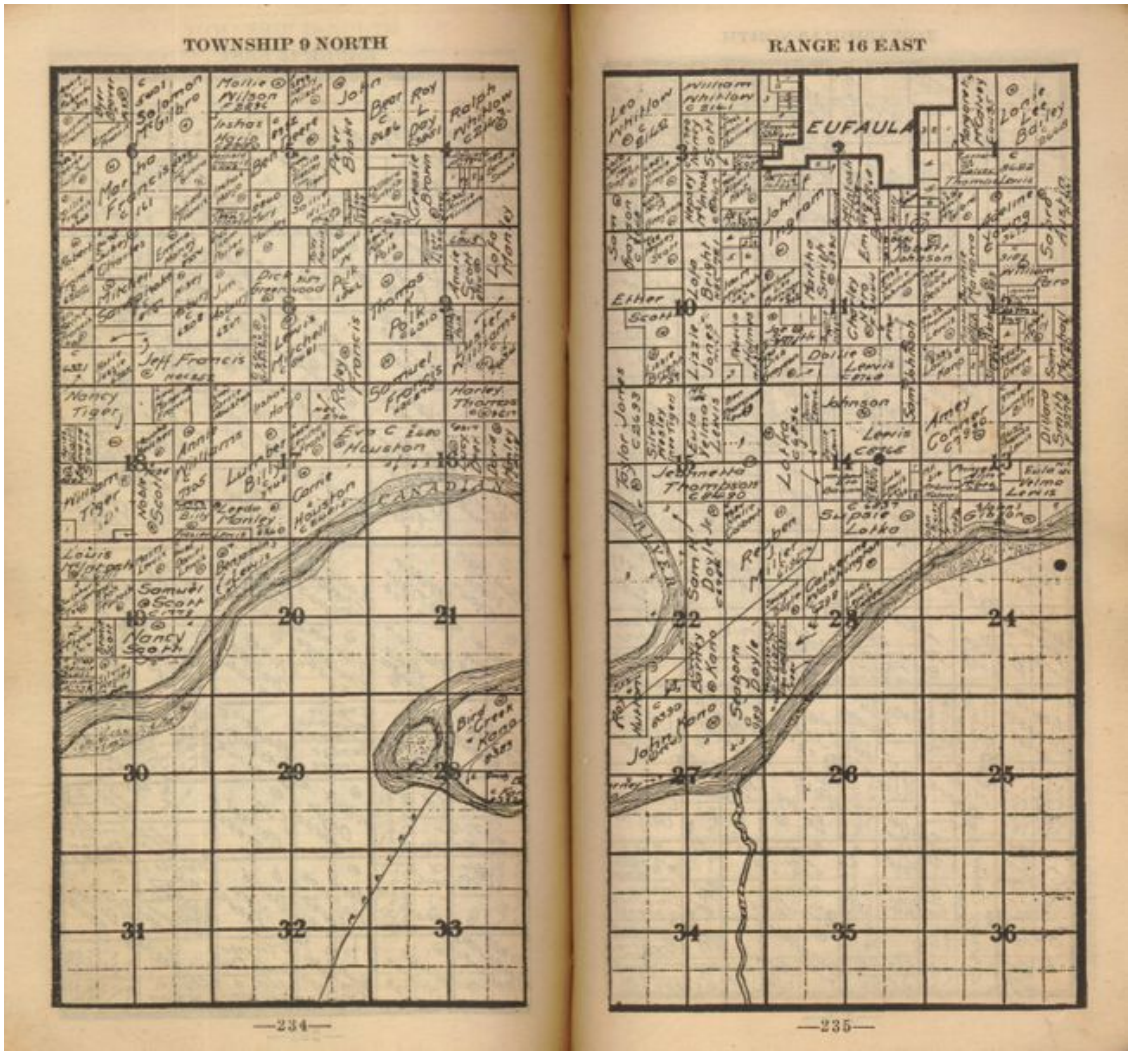
Historical Context: Allotment

- Allotment: divided communal tribal land into privately owned parcels
- Intended to weaken power of tribal governments
- Each Creek citizen was entitled to an allotment of 160 acres,[1] regardless of:
  - age
  - gender
  - **former enslavement**
- 80% of allottees had enrolled by 1901. ▸ Application Timing

[1] For reference, between the Ulysses S. Grant Memorial and the Lincoln Memorial, the National Mall covers 309.2 acres.

Historical Context: Allotment

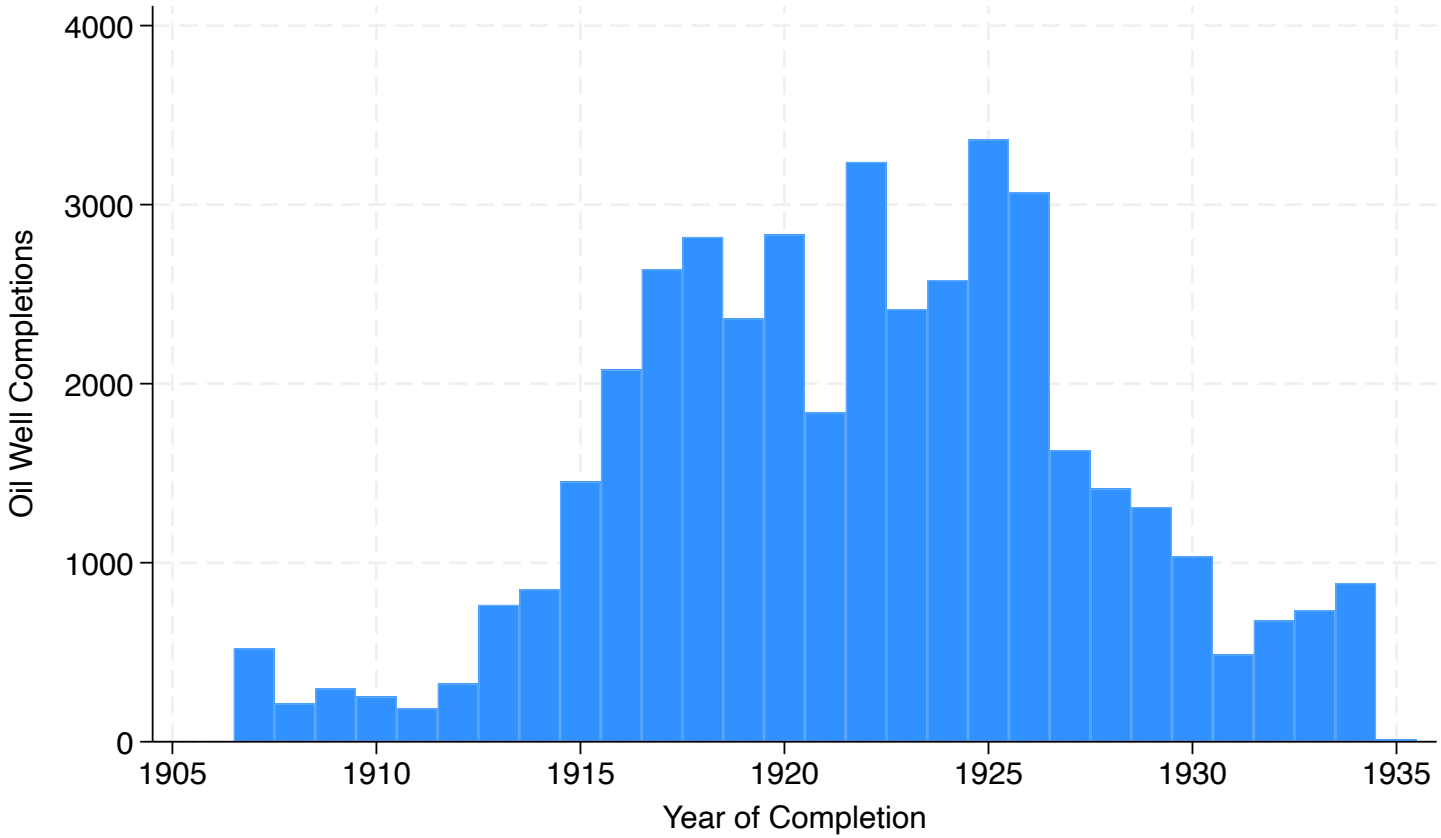




Historical Context: Oil Capital of the World

1901	First oil discovery in Tulsa area Located on allotment of Creek native Sue A. Bland
1905	First "gusher" officially kicks off Tulsa oil boom Located on allotment of Creek native Ida Glenn
1907	Oklahoma statehood
1912	City of Tulsa proclaims self "Oil Capital of the World"

Distribution of Drilling Activity within the Creek Nation



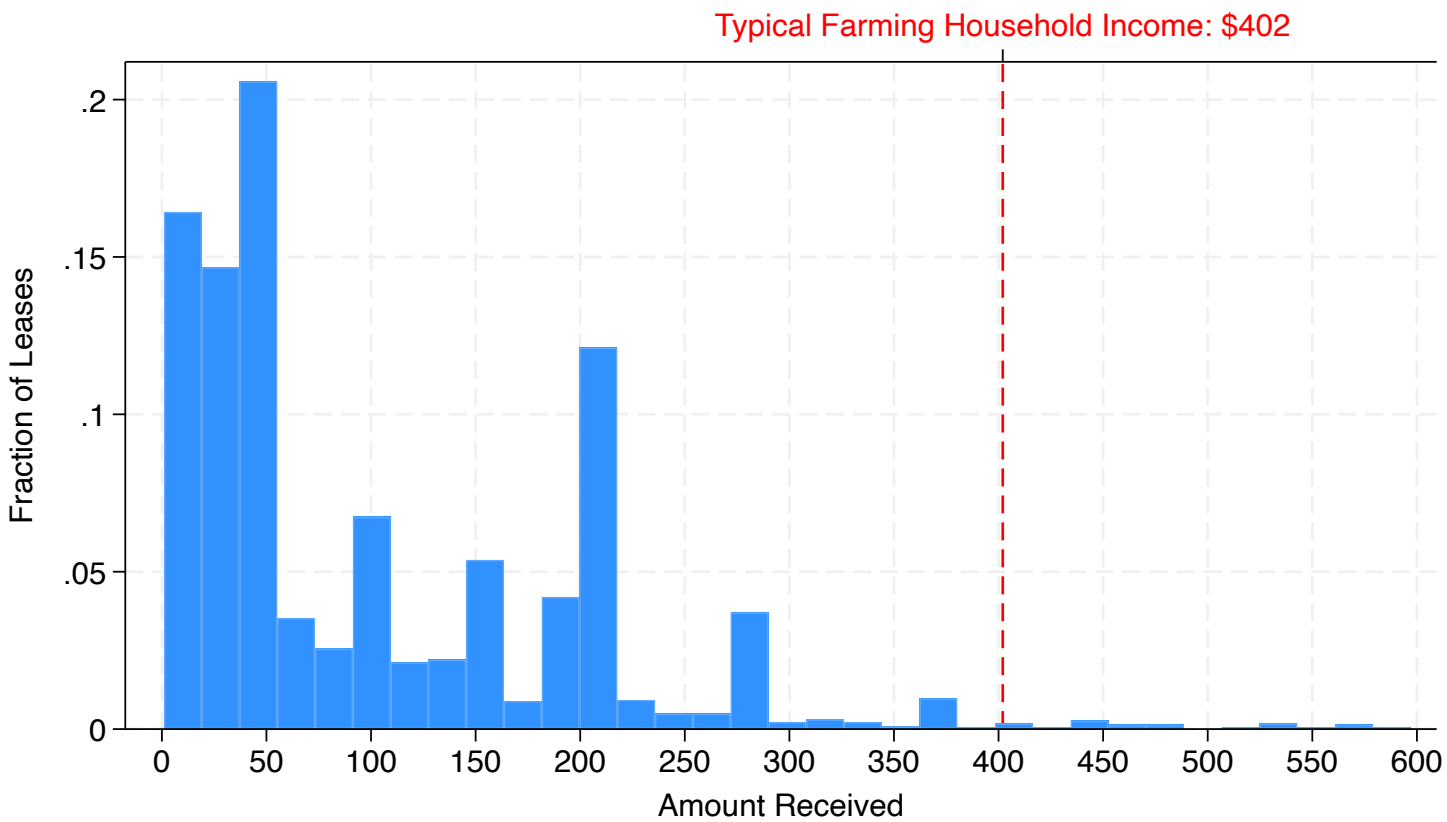
Note: For a histogram showing the distribution of "treatment arrival," see ▸ Winners by Year.

Historical Context: Oil Windfalls

"Indians, white men and black men are being made into millionaires almost overnight in Oklahoma these days. . . The money is pouring in a golden stream into the hands of people who a few years ago were [quite poor]."

The Philadelphia North American, September 1914

Distribution of Oil Royalties Received in Year 1910



Note: Median annual royalties $59.10, mean $276.35, max $23,134.92. This figure includes leases belonging to both Creek Indians and Creek Freedmen. More info on how contracts get made: ▸ Wildcatters

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Data & Methodology: Treatment Assignment

1. I built a database of allottees connected to their land allotments for the entire Creek Nation ▸ Maps Again
    - 6,836 Freedmen (12,014 Creek Indians)
2. I built a database of every well completed in the Creek Nation between 1900 and 1934 ▸ Map of Oil Wells
3. **"Treatment Assignment"** I link every oil well to the allotment data in order to observe whether Freedman allottee was "assigned" treatment (got oil) or control (no oil)

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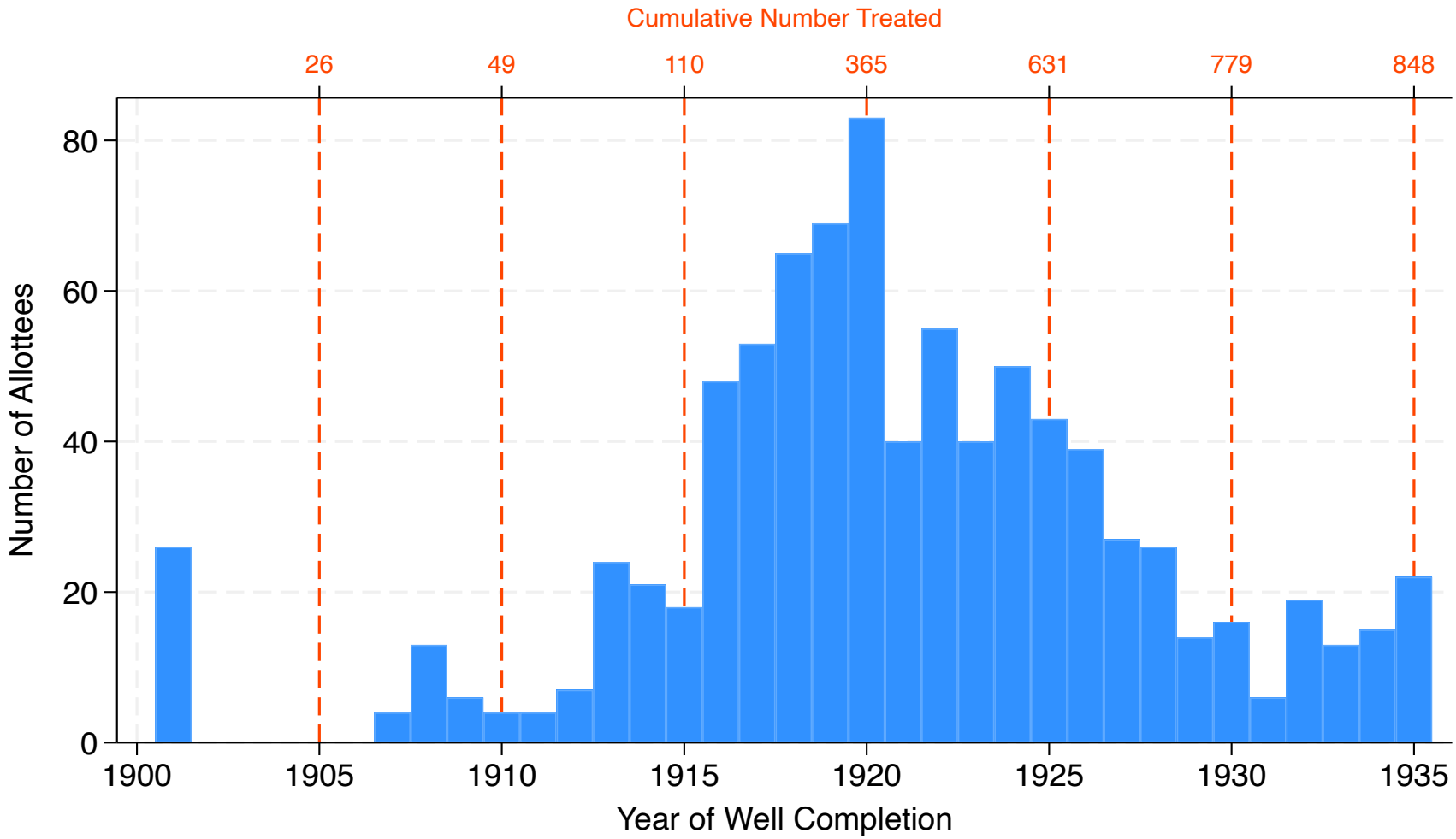
Data & Methodology: Treated sample size



▸ Back to Next Steps ▸ Back to oil wells by year

Data & Methodology: Allotment Data

- I know some limited microdata about every member in the full 6,836 Freedman sample
  - On average, they were 25.3 in 1910, with heaping around ages 6 and 12 ▸ Age in 1910
  - Half male, half female ▸ Gender
- For all other covariates, I link them to the full-count Censuses
  - Linking in rounds utilizing exclusive information, ABE and the "Census Tree" (Buckles *et al.*, 2023) ▸ Link Methods
  - Importantly, linking rates identical between treated and untreated people

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Balance: Oil Discovery Uncorrelated with Pre-Treatment Observables

Among full sample, treatment and control units statistically identical on age and gender ▸ Full Sample Among those matched to 1910 Census, treatment and control units were also similar on Census-observables prior to realization

- Urban status ▸ Geography, 1910 and homeownership ▸ Homeownership, 1910
- Rates of marriage ▸ Marriage, 1910
- Income and work characteristics (adults) ▸ Worker Class, 1910 ▸ Occuption, 1910 ▸ Occscore, 1910
- School attendance (children) ▸ Kids in Household, 1910
- Neghborhood characteristics ▸ Neighbors, 1910

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Effect of oil money on first-generation

- No longitudinal analysis yet
    - I rely on assumption that oil distribution orthogonal to underlying characteristics in order to interpret estimates on cross-sections as causal
- Treated folks shifted out of farming and into white-collar professions by 1920 and 1930
- They are more likely to own a home in 1930 (9.8 pp)
- Work on 1940 and 1950, which will include adult children of allottees, is still ongoing

Effect of oil money on assets: modest

	Estimate	Mean	Observations
A. Wealth and Expenditure, 1920			
Family owns home	-0.019	0.566	2,616
	(0.045)		
Family owns home: paid off	-0.033	0.653	1,481
	(0.060)		
B. Wealth and Expenditure, 1930			
Family owns home	0.098*	0.435	1,515
	(0.054)		
Owned house value	2170.959	2733.417	276
	(1373.656)		
Household has a radio	0.050	0.098	1,515
	(0.037)		
C. Wealth and Expenditure, 1940			
Family owns home	0.046	0.370	1,223
	(0.059)		
Owned house value	711.995	1178.108	455
	(700.073)		

Note: Standard errors robust to heteroskedasticity are shown in parentheses. $***p < 0.01, **p < 0.05, *p < 0.1$

▸ 1910

Large effects of oil money on occupational status

	Estimate	Mean	Observations
A. Occupation, 1920			
White-Collar	0.081**	0.037	1,472
	(0.038)		
Blue-Collar	0.000	0.602	1,472
	(0.055)		
Farming	-0.082	0.361	1,472
	(0.051)		
B. Occupation, 1930			
White-Collar	0.114**	0.068	1,082
	(0.049)		
Blue-Collar	0.054	0.556	1,082
	(0.067)		
Farming	-0.168***	0.375	1,082
	(0.056)		
C. Occupation, 1940			
White-Collar	0.060	0.077	829
	(0.052)		
Blue-Collar	-0.077	0.669	829
	(0.074)		
Farming	0.017	0.253	829
	(0.067)		
D. Other Employment Characteristics, 1940			
Unemployed (in labor force)	-0.052	0.144	817
	(0.046)		
Employment wages/salary in 1939	136.403	502.132	559
	(136.181)		

Note: Standard errors robust to heteroskedasticity are shown in parentheses. ***$p < 0.01$,**$p < 0.05$,*$p < 0.1$

1910

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Productive Investments as a Mechanism for Economic Mobility

- I propose that short-term money might have a long-term impact on socioeconomic outcomes of families if the money were invested into productive means, such as entrepreneurship, capital, education, or migration.

- I find evidence of allottee investment in education and migration, in response to finding oil.

Mechanisms: Investments in human capital of self

	Estimate	Mean	Observations
A. Allottee Education, 1920			
In school	0.134*	0.760	558
	(0.078)		
Literate	0.042***	0.951	1,399
	(0.015)		
B. Allottee Education, 1930			
Literate	0.026	0.939	817
	(0.026)		
C. Allottee Education, 1940			
Completed 2nd grade	0.045***	0.961	635
	(0.010)		
Completed high school	0.095	0.152	633
	(0.081)		
Completed college	0.114*	0.032	631
	(0.065)		

Note: Standard errors robust to heteroskedasticity are shown in parentheses. $^{***}p < 0.01, ^{**}p < 0.05, ^{*}p < 0.1$

Mechanisms: Investments in human capital of offspring

	Estimate	Mean	Observations
A. Children in Household, 1920			
Household members under 18	-0.343*	2.706	2,493
	(0.202)		
Fraction of children that work	-0.049	0.286	1,549
	(0.051)		
School attendance rate	0.000	0.715	1,918
	(0.041)		
Child literacy rate	0.048***	0.952	1,929
	(0.005)		
B. Children in Household, 1930			
Household members under 18	-0.546**	1.977	1,464
	(0.214)		
Fraction of children that work	-0.081	0.193	541
	(0.055)		
School attendance rate	0.049	0.790	892
	(0.048)		
Child literacy rate	0.015	0.967	838
	(0.014)		
C. Children in Household, 1940			
Household members under 18	-0.246	1.570	1,169
	(0.279)		
Fraction of children that work	0.152	0.147	402
	(0.105)		
School attendance rate	-0.043	0.833	621
	(0.063)		
Child literacy rate	0.000	0.965	509
	(0.027)		

Note: Standard errors are robust to heteroskedasticity and are shown in parentheses. ***$p < 0.01$,**$p < 0.05$,*$p < 0.1$

Mechanisms: Investments in migration

	Estimate	Mean	Observations
A. Location, 1920			
Living in Oklahoma	0.002	0.861	2,616
	(0.031)		
Urban	0.092**	0.274	2,616
	(0.043)		
B. Location, 1930			
Living in Oklahoma	-0.028	0.802	1,515
	(0.045)		
Urban	0.068	0.370	1,515
	(0.053)		
C. Location, 1940			
Living in Oklahoma	-0.038	0.714	1,223
	(0.056)		
Urban	0.023	0.451	1,223
	(0.060)		
Moved within last five years	-0.087*	0.253	1,168
	(0.045)		

Note: Standard errors are robust to heteroskedasticity and are shown in parentheses. $***p < 0.01, **p < 0.05, *p < 0.1$

▸ Balance in 1910 ▸ Characteristics of Rural and Urban Enumeration Districts

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Next Steps

- Constantly linking...
  - I currently match 64% to 1910, 55% to 1920, and $\sim$ 34% to 1930/1940. ▸ Treated Sample Size
  - Link the adult children of allottees to 1940 in order to examine intergenerational impacts
- Extensions to measurement of wealth
- Intensive margin mechanisms
  - Digitizing lease agreements to better quantify size and duration of oil royalties to individuals

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Conclusion

- I argue that oil discovery in early 1900s Oklahoma was quasi-random and that its impacts can be examined through the lens of a positive monetary shock, randomly distributed to descendants of the enslaved

- I find suggestive evidence that in the decades following treatment, "treated" Creek Freedmen look different on a number of different outcomes than "control" Creek Freedmen

- This context will be central to a number of interesting questions and will motivate an exciting research agenda

Thank you!

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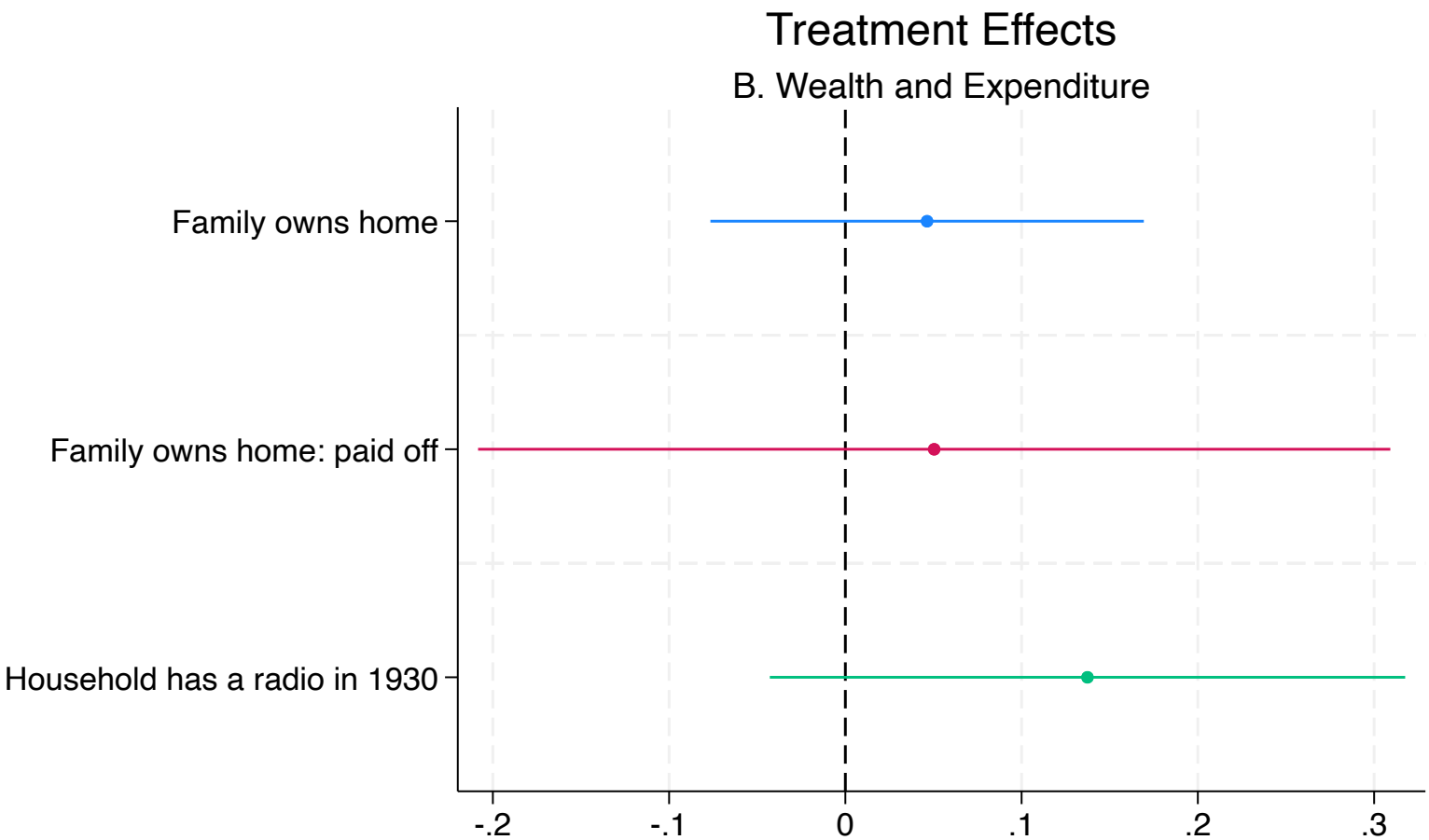
Data & Methodology: Census Linking

	Census Decade			
	1910	1920	1930	1940
Matched by Hand	218	118	90	77
Semiautomated: Family	2,057	1,010		
Semiautomated: Unique name	328	366		
ABE Method	601	592		
Census Tree (implied)	308	516	1,418	1,137
Confirmed deceased	877	1,154	1,158	1,168
Unmatched	2,450	3,083	4,173	4,457
Total	6,839	6,839	6,839	6,839

▸ back ▸ Next Steps

Effect of oil discovery: Wealth & Expenditure

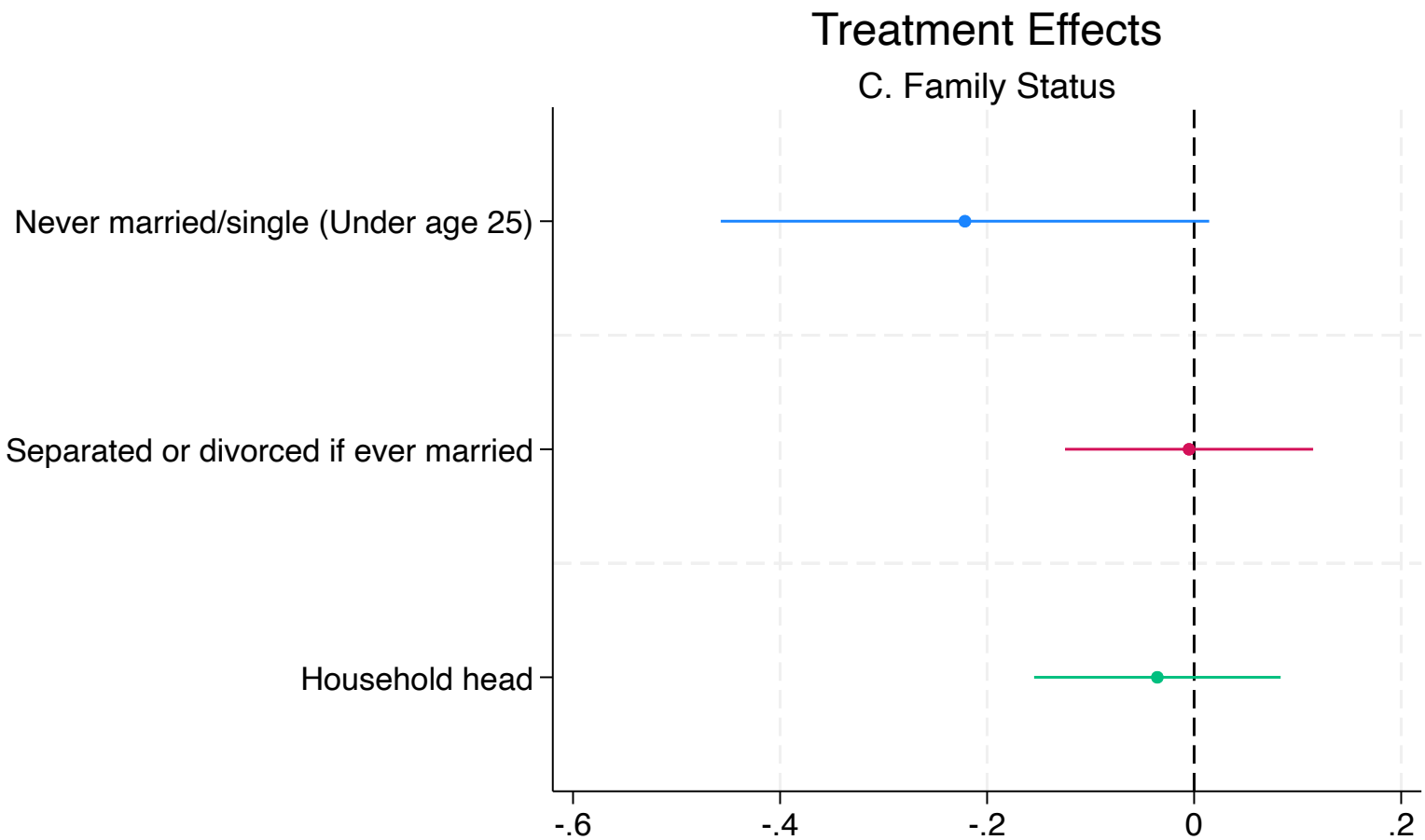
- Property: no statistical difference in home ownership or in mortgage status



1910

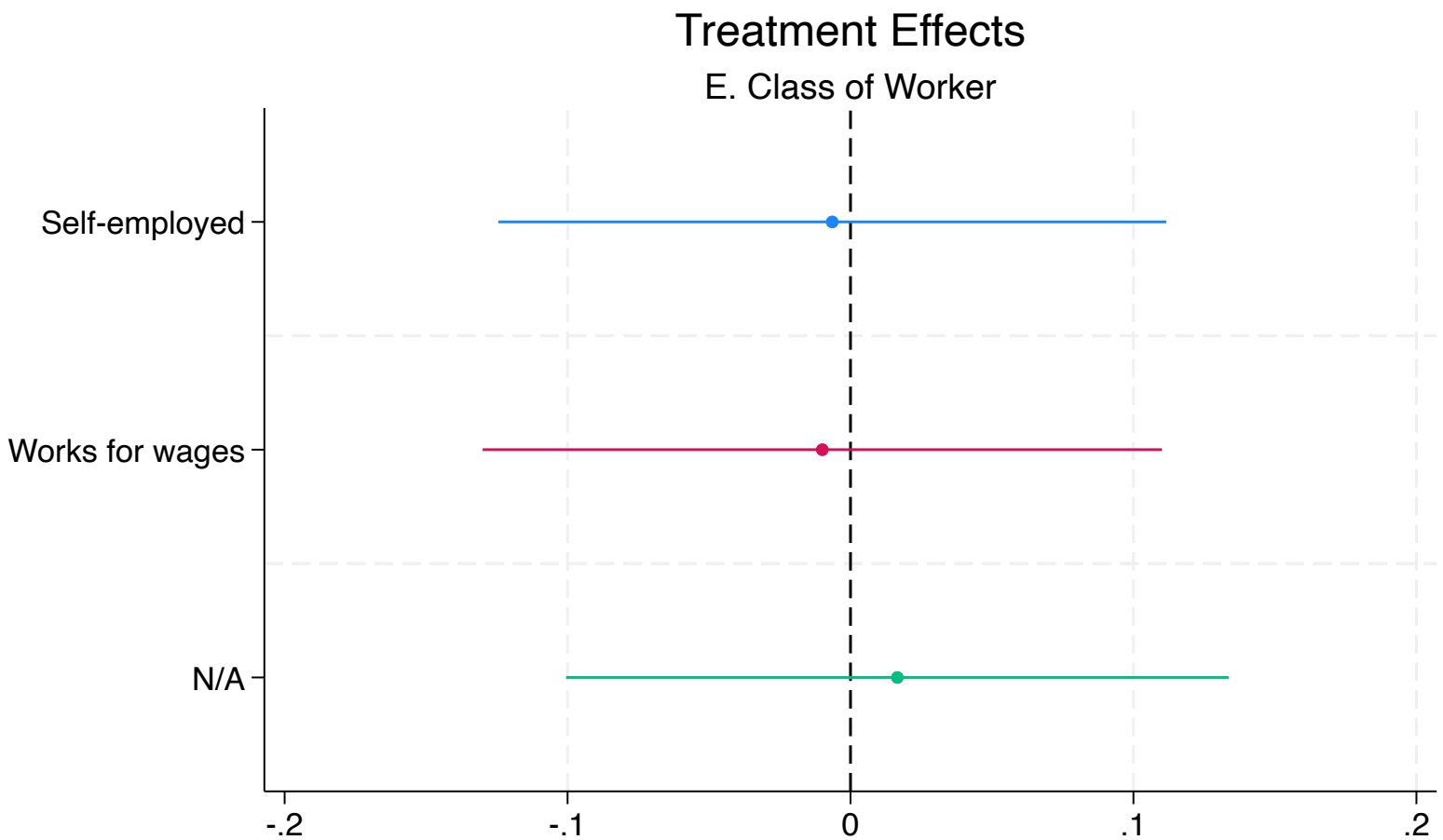
Effect of oil discovery: Family Status

- No statistical difference in marriage characteristics



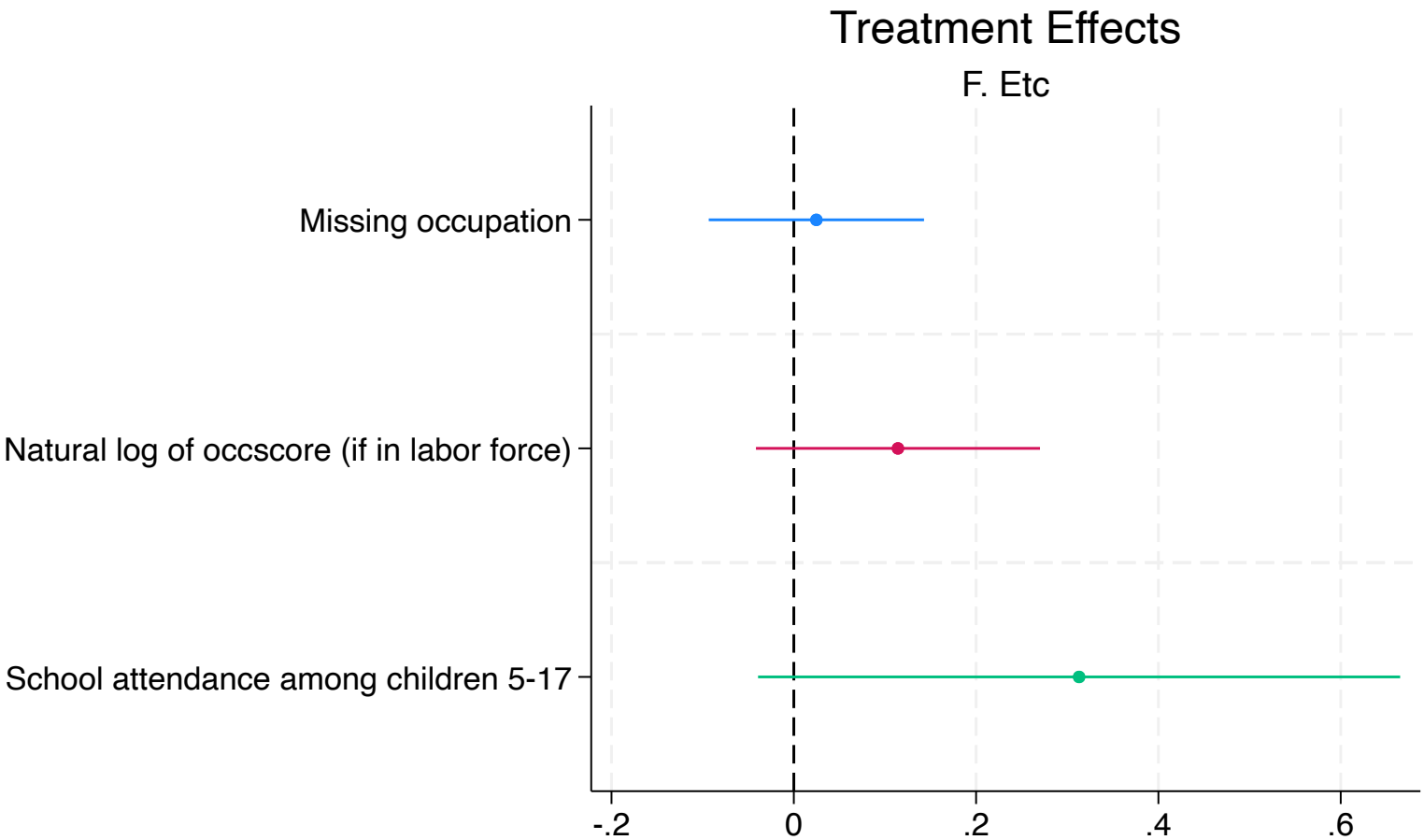
Effect of oil discovery: Worker Class

- Property: no statistical difference in home ownership or in mortgage status

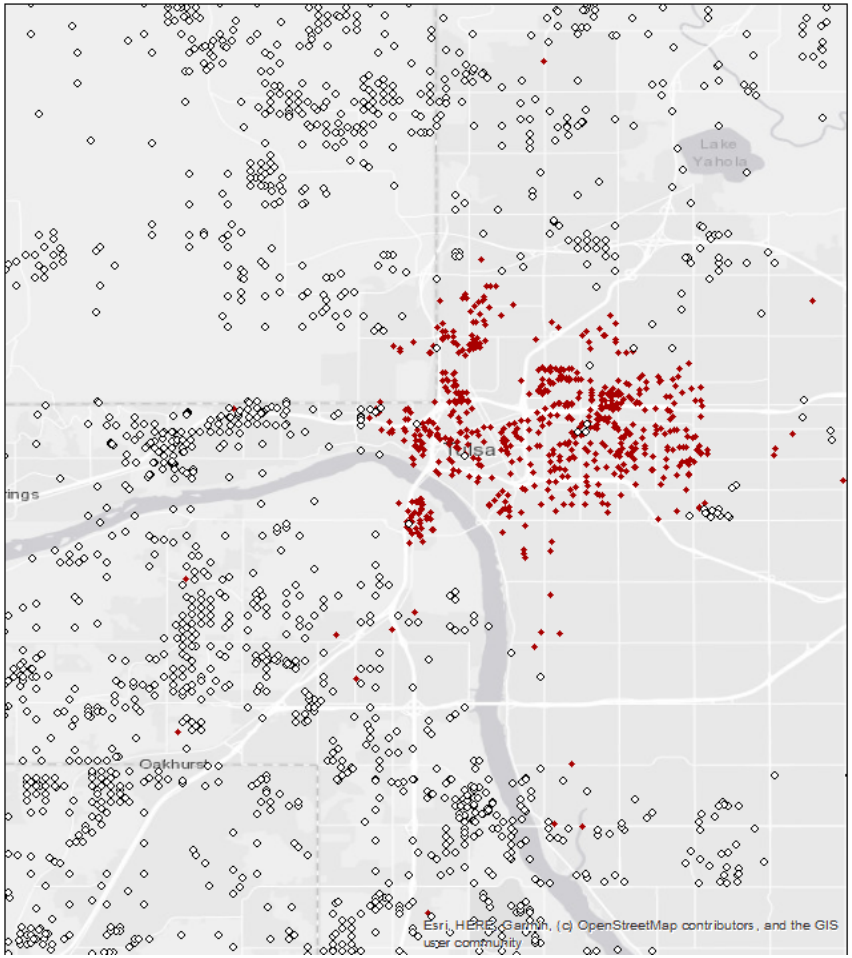


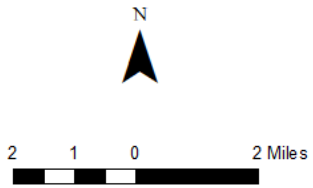
Effect of oil discovery: Misc

- No statistical difference in marriage characteristics



OK Oil Well Locations and KKK Member Residential Addresses





Legend

- OK Oil Well Locations (prior to 1934)
- KKK Member Residential Addresses

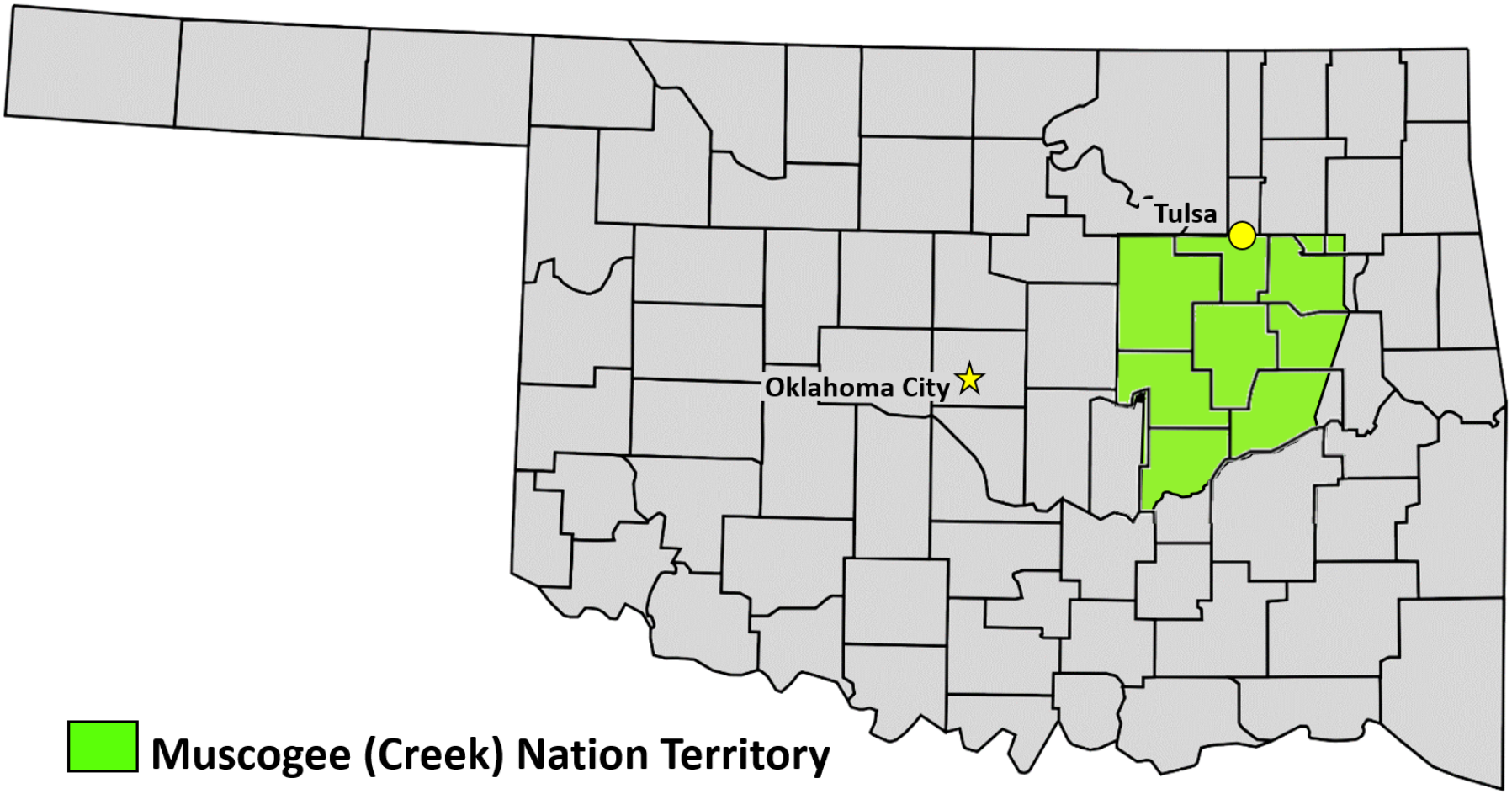
Go Back

Match rates by treatment status

	No oil by 1918 [6,547]	Oil by 1918 [293]	p-value
Link result, 1910	0.583 (0.493)	0.709 (0.455)	<0.001
Link result, 1920	0.451 (0.498)	0.564 (0.497)	<0.001
Link result, 1930	0.258 (0.438)	0.408 (0.493)	<0.001
Link result, 1940	0.209 (0.406)	0.329 (0.471)	<0.001

Go Back

Oklahoma



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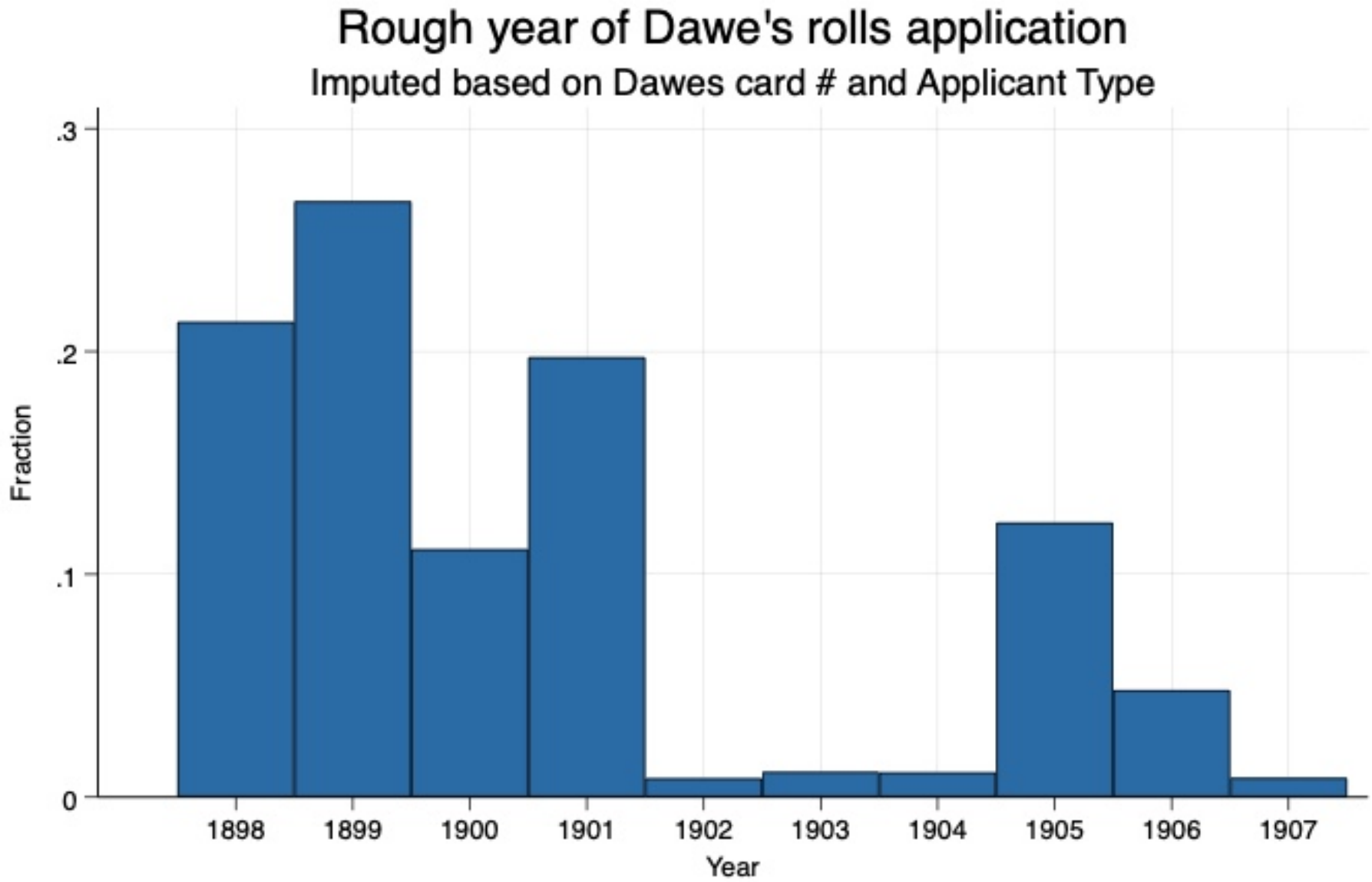
Balance: Among full sample

Table: Balance on characteristics from Dawe's Rolls

	No oil by 1930 [5,952]	Oil by 1930 [779]	p-value
Male	0.479 (0.500)	0.493 (0.500)	0.464
Age in 1910 (imputed)	25.457 (17.558)	24.697 (17.504)	0.256

Go Back


Rough year of Dawe's rolls application
Imputed based on Dawes card # and Applicant Type
Fraction
.3
.2
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1898
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1900
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1902
1903
1904
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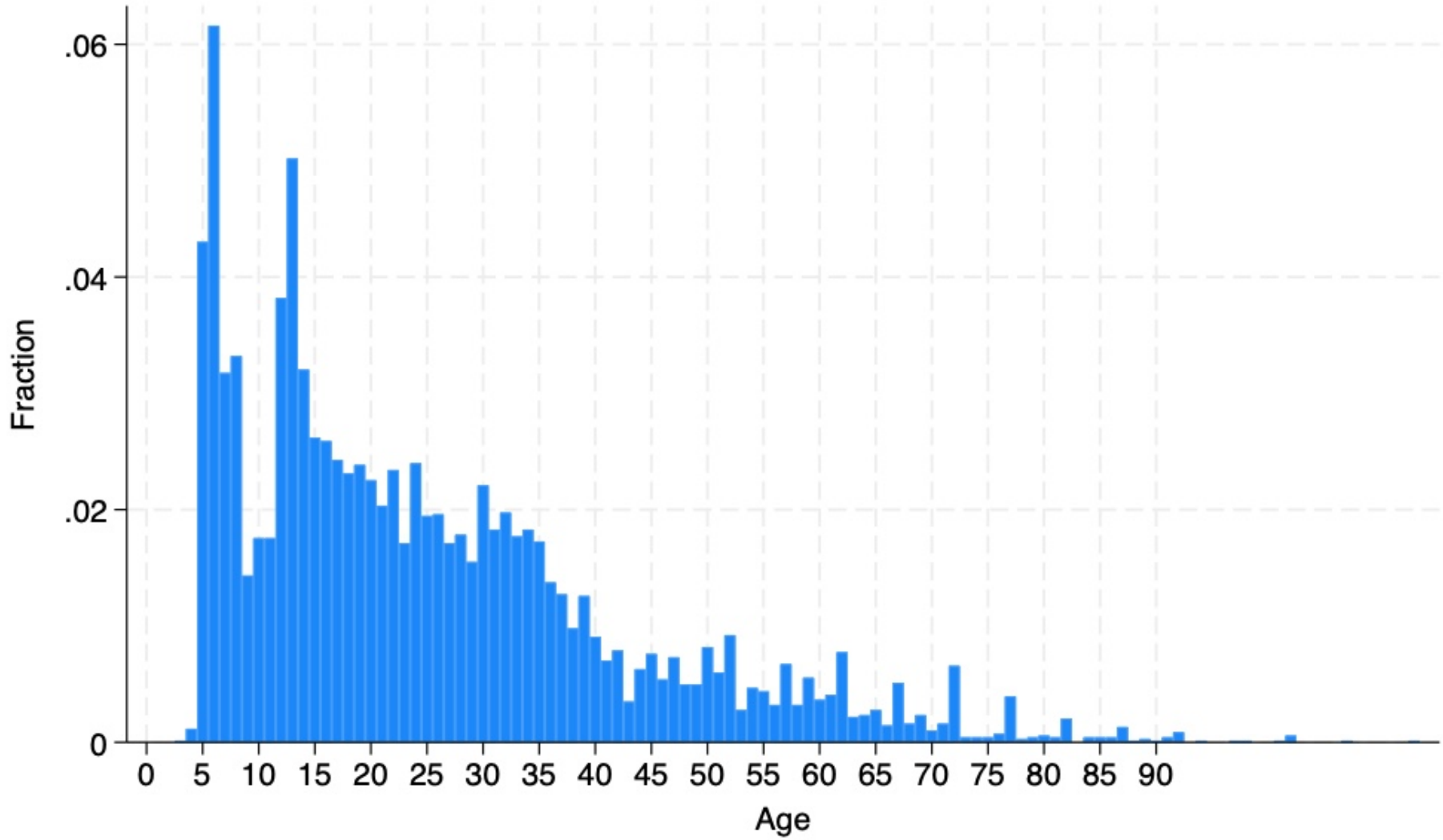
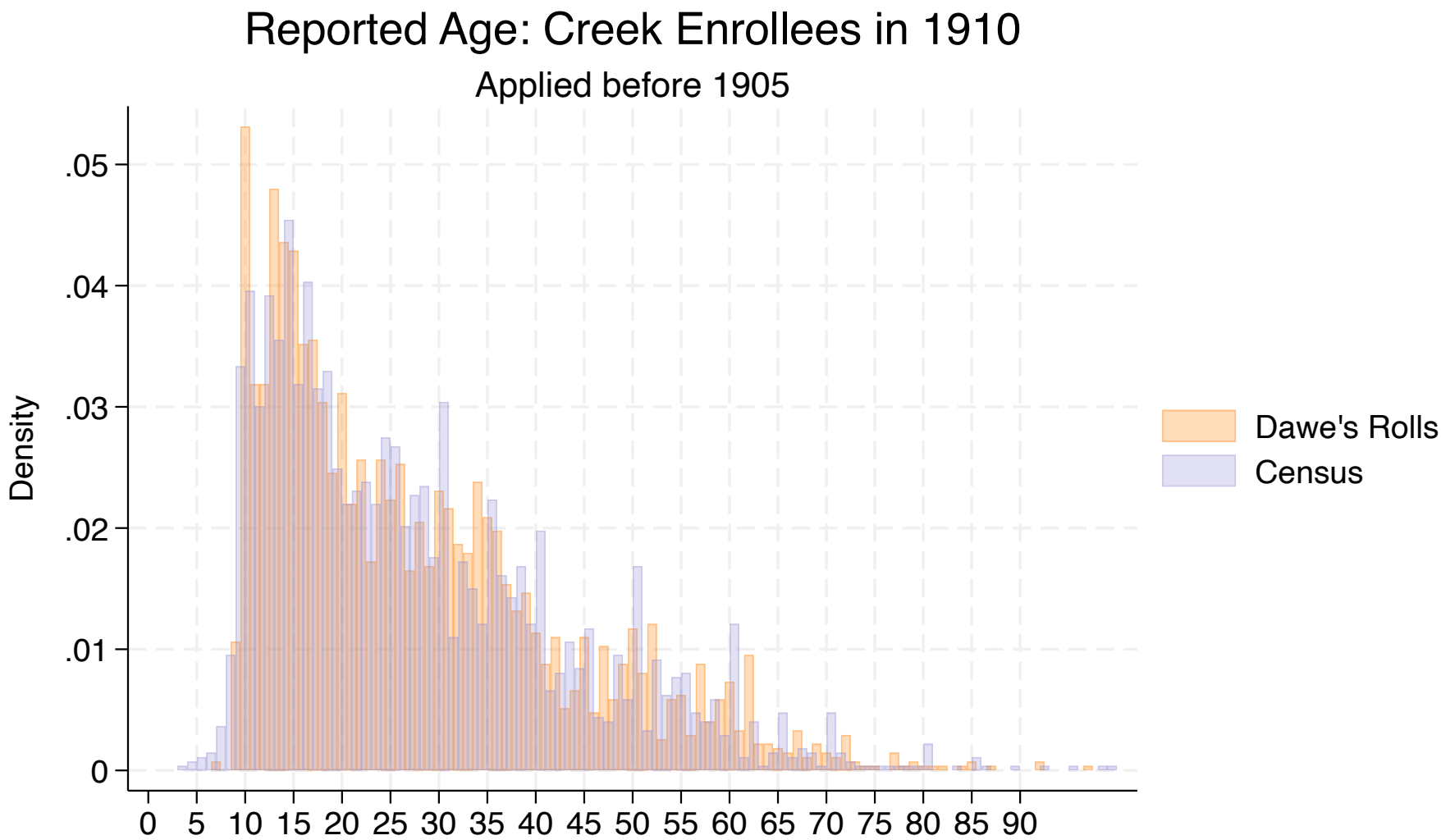
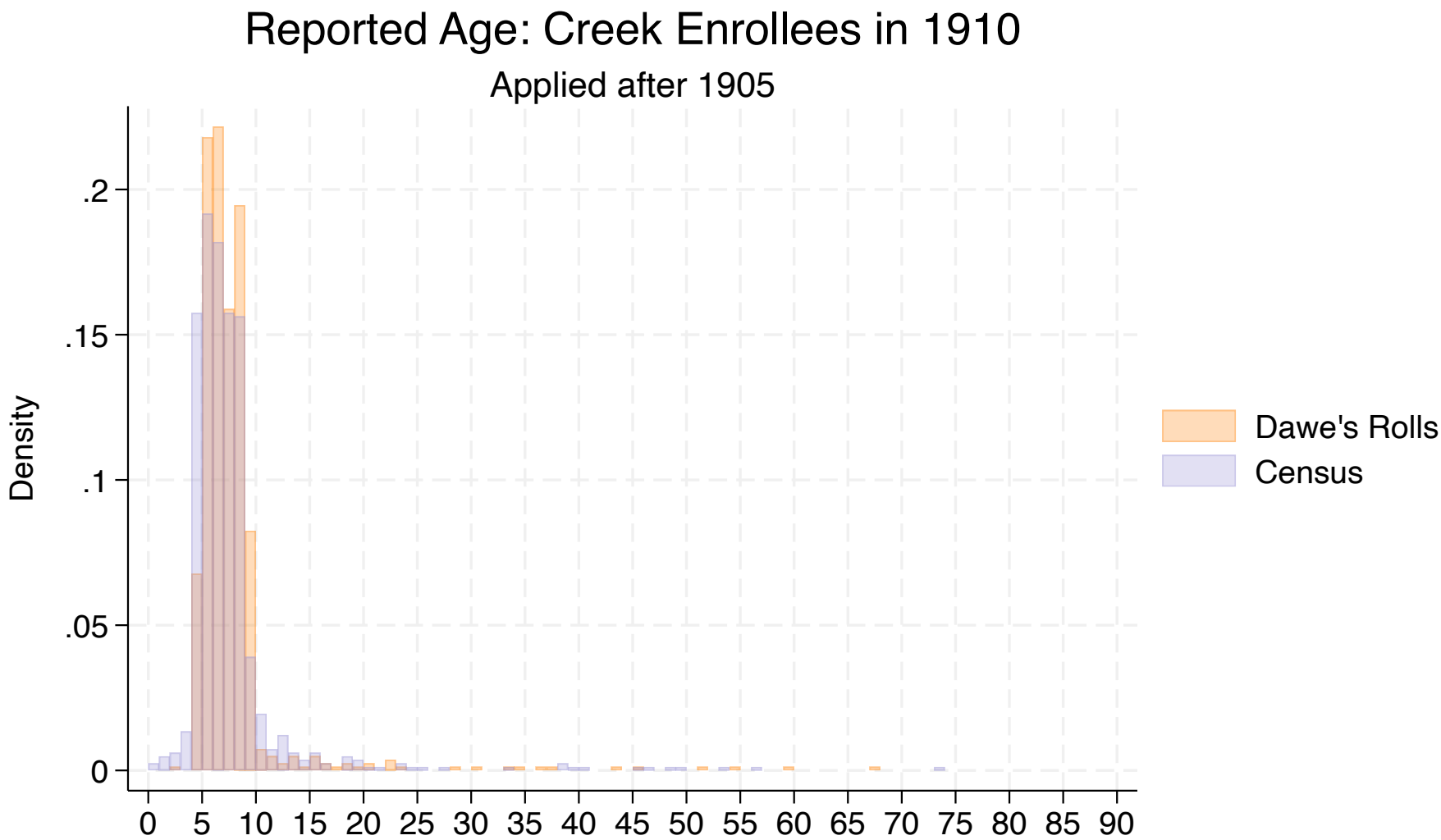
1906
1907
Year

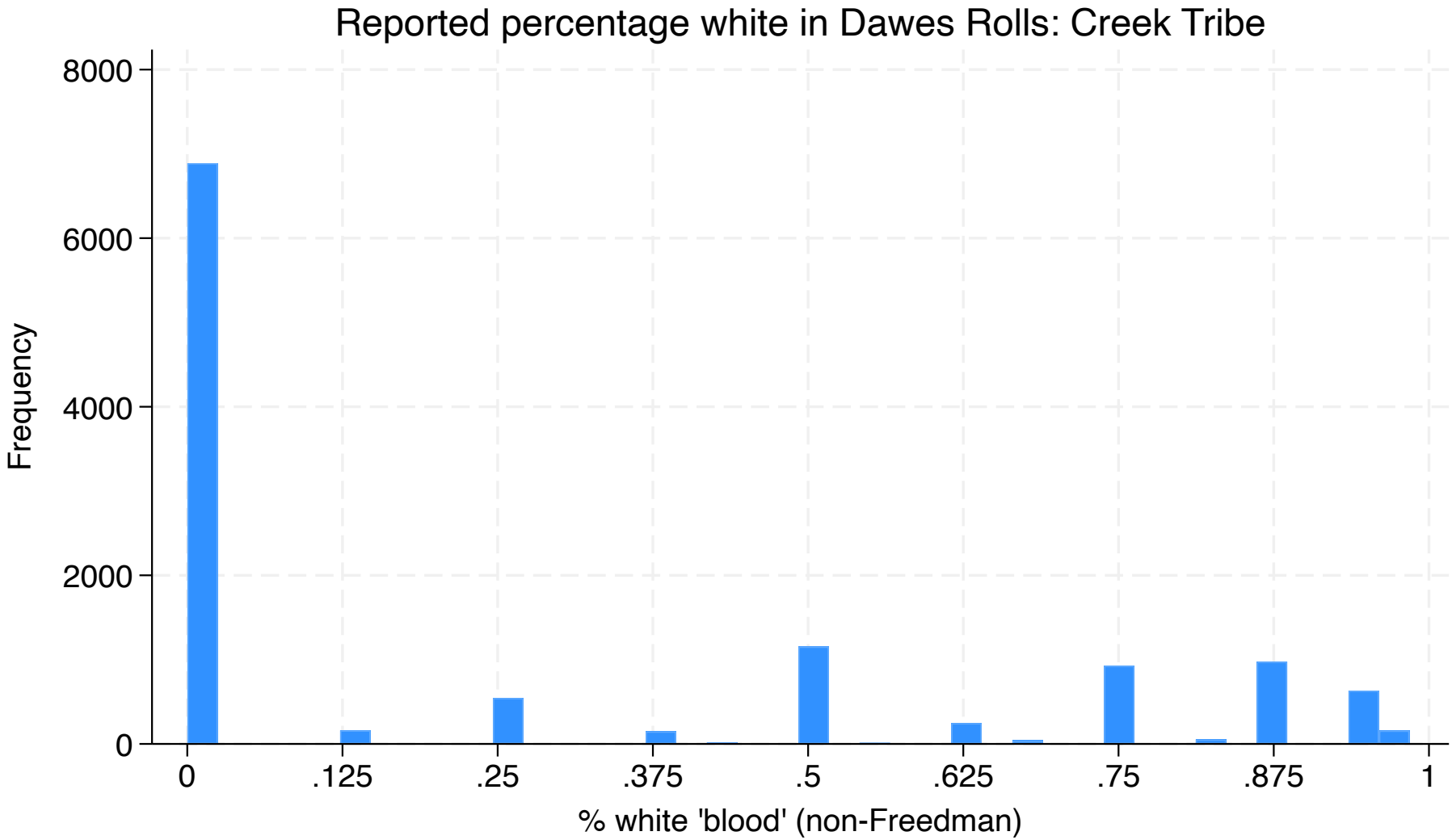
Go Back


.06
.04
.02
0
Fraction
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90
Age

▸ Go Back


Reported Age: Creek Enrollees in 1910
Applied before 1905
Density
.05
.04
.03
.02
.01
0
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90
Dawe's Rolls
Census


Reported Age: Creek Enrollees in 1910
Applied after 1905
Density
.2
.15
.1
.05
0
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90
Dawe's Rolls
Census


Reported percentage white in Dawes Rolls: Creek Tribe
Frequency
8000
6000
4000
2000
0
0
.125
.25
.375
.5
.625
.75
.875
1
% white 'blood' (non-Freedman)

Go Back

	Enrollment Category			
	Indian		Freedman	
	12,014	63.7%	6,836	36.3%
Age in 1910	26.8	(17.8)	25.3	(17.5)
Male	0.5	(0.5)	0.5	(0.5)

Go Back

Table: Sex among Allottees

	Sex		
	Female	Male	Total
Frequency	9,544	9,306	18,850
Percent	50.6%	49.4%	100.0%
Age in 1910 (imputed)			
Mean	26.4	26.1	26.3
Standard deviation	17.9	17.5	17.7

Go Back

	No oil by 1918	Oil by 1918	p-value
A. Full Sample (from Dawe's Rolls)			
N	6,547 (95.7%)	293 (4.3%)	
Male	0.48 (0.50)	0.51 (0.50)	0.415
Age in 1910	25.34 (17.59)	25.12 (16.68)	0.829
B. Sample Matched to 1910 Census			
N	3,345 (95.0%)	175 (5.0%)	
Male	0.52 (0.50)	0.51 (0.50)	0.897
Age	22.66 (16.40)	24.83 (15.18)	0.088
Born in Oklahoma	0.86 (0.35)	0.85 (0.36)	0.861
Mother born in OK	0.69 (0.46)	0.78 (0.42)	0.011
Father born in OK	0.62 (0.49)	0.66 (0.48)	0.301
Speaks English	1.00 (0.05)	1.00 (0.00)	0.524
Literacy (Age 20+ in 1910)	0.74 (0.44)	0.78 (0.41)	0.314

Go Back

	No oil by 1918	Oil by 1918	p-value
N	853 (74.4%)	293 (25.6%)	
Male	0.580 (0.494)	0.569 (0.497)	0.825
Age in 1910	27.009 (19.220)	25.117 (16.680)	0.133
Born in Oklahoma	0.825 (0.381)	0.838 (0.369)	0.723
Mother born in OK	0.624 (0.485)	0.692 (0.463)	0.164
Father born in OK	0.546 (0.499)	0.608 (0.490)	0.227
Literacy	0.891 (0.312)	0.931 (0.255)	0.192

Go Back

Balance: Among those matched to 1910 Census

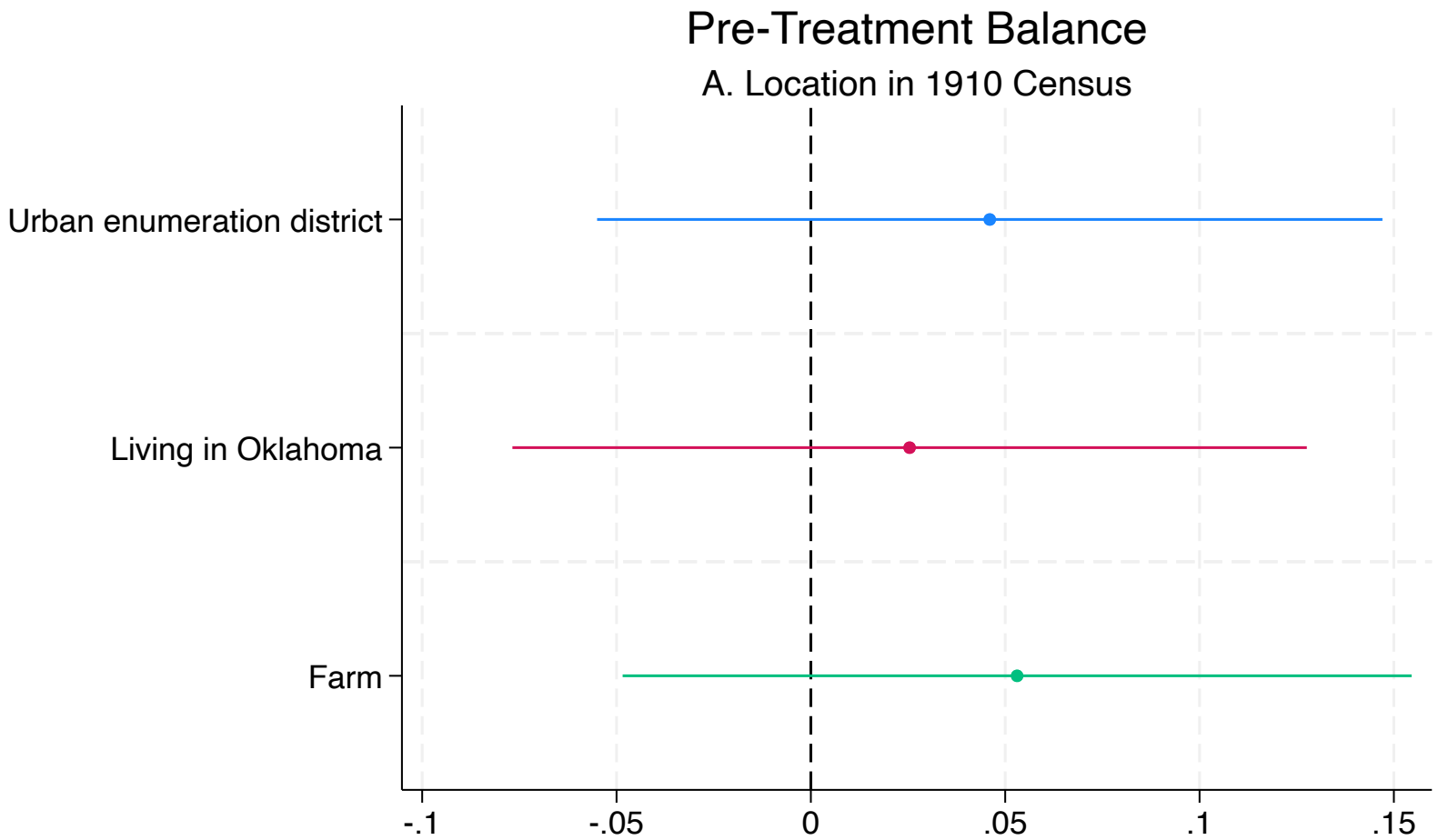
Table: Balance on neighborhood characteristics in 1910

	No oil by 1918	Oil by 1918	p-value
A. Racial composition			
Share of neighbors Black	0.47 (0.25)	0.49 (0.23)	0.297
Share of neighbors indigenous	0.03 (0.04)	0.02 (0.03)	0.167
Share of neighbors white	0.50 (0.24)	0.49 (0.21)	0.369
Total number of people in enumeration district	1,549.50 (501.28)	1,633.93 (602.56)	0.076
B. Home ownership			
Nonwhite	0.41 (0.13)	0.39 (0.12)	0.096
White	0.26 (0.15)	0.26 (0.14)	0.783
Total	0.35 (0.11)	0.33 (0.10)	0.215
C. White-collar occupations			
Nonwhite	0.05 (0.05)	0.06 (0.05)	0.680
White	0.16 (0.17)	0.17 (0.17)	0.482
Total	0.11 (0.12)	0.11 (0.11)	0.980
D. School attendance			
Nonwhite	0.84 (0.12)	0.85 (0.12)	0.266
White	0.82 (0.08)	0.82 (0.08)	0.551
Total	0.83 (0.06)	0.84 (0.07)	0.354
E. Literacy			
Nonwhite	0.83 (0.10)	0.85 (0.11)	0.013
White	0.95 (0.05)	0.96 (0.04)	0.335
Total	0.90 (0.07)	0.91 (0.07)	0.033

Note: Mean (Standard deviation): p-value from a pooled t-test. This table displays aggregate characteristics of the enumeration districts (EDs) where allottees lived in 1910. By construction, only allottees who were linked to the 1910 Census are included in this table.

Go Back

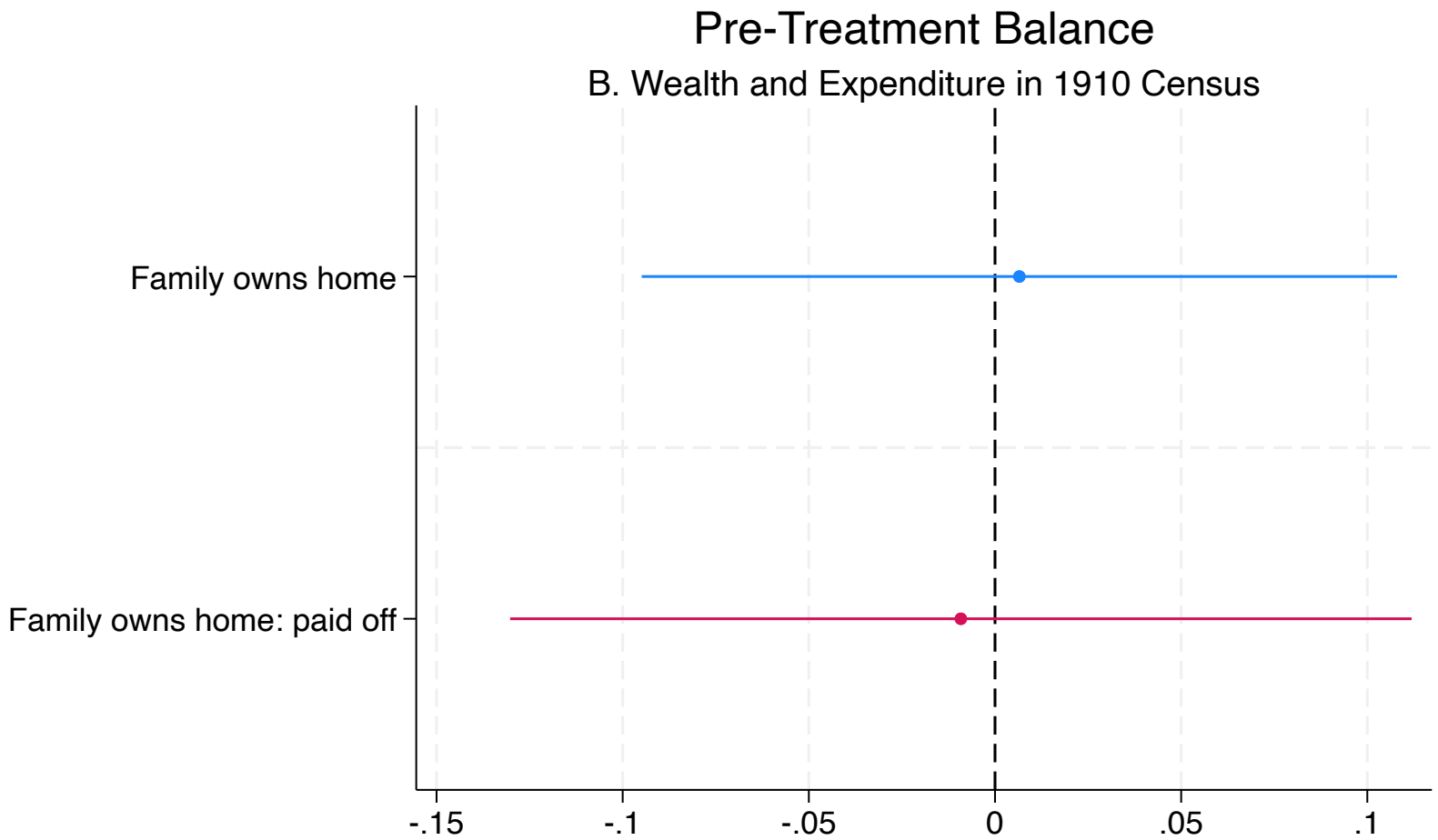
Balance: Among those matched to 1910 Census



▸ Go Back- Balance

▸ Go Back- Effects

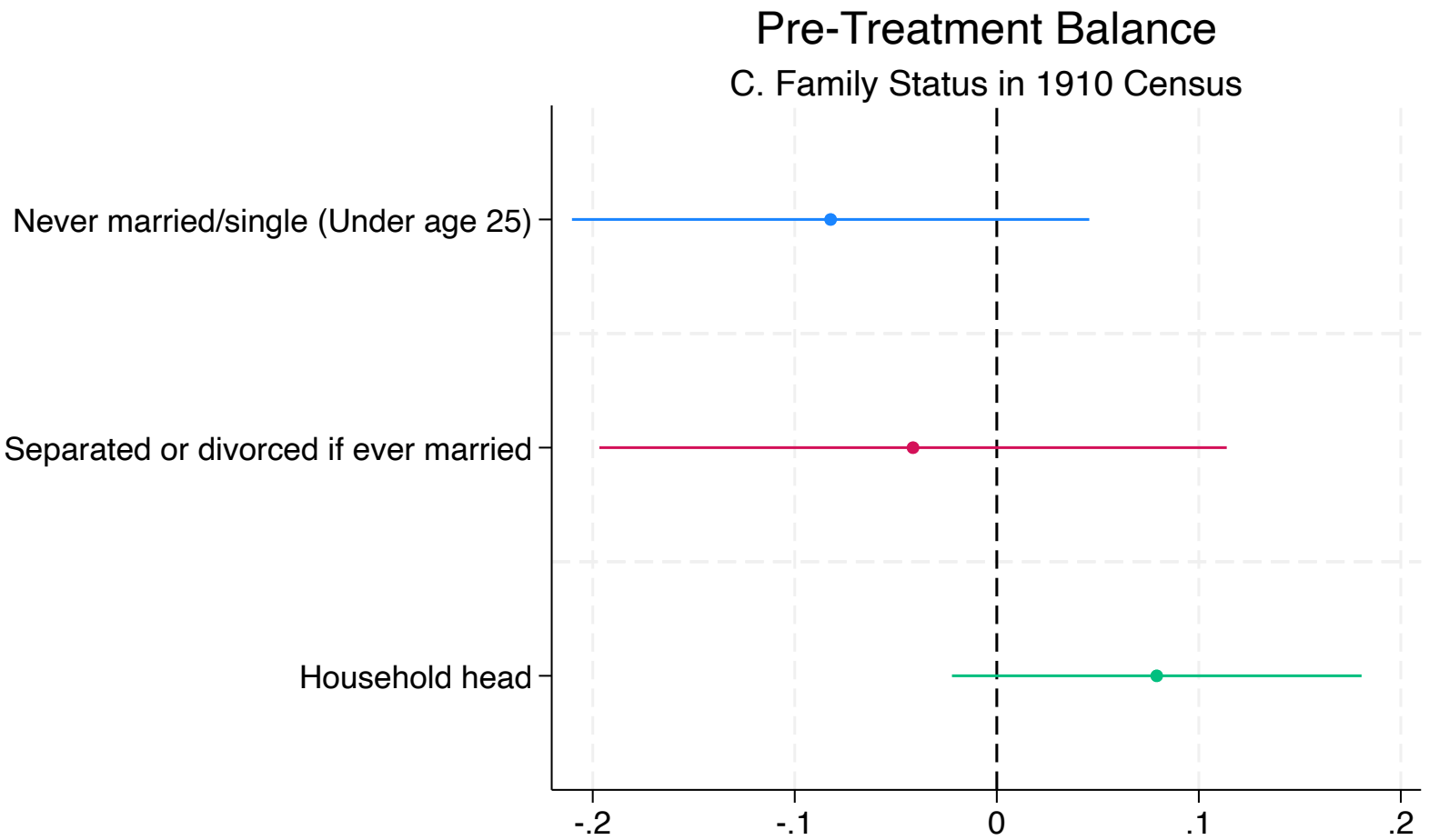
Balance: Among those matched to 1910 Census



▸ Go Back- balance

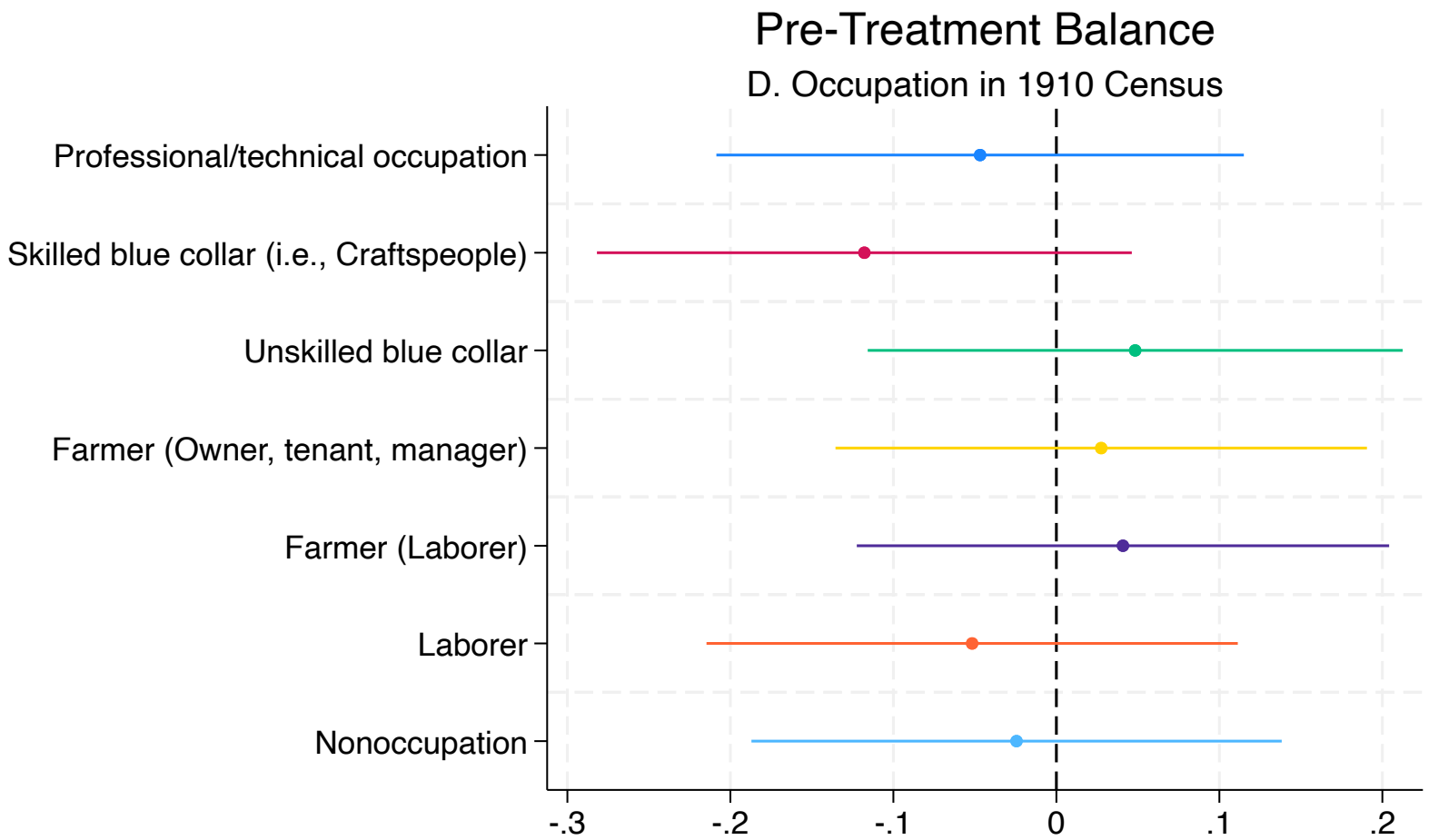
▸ Go Back- outcomes

Balance: Among those matched to 1910 Census



Go Back
1920

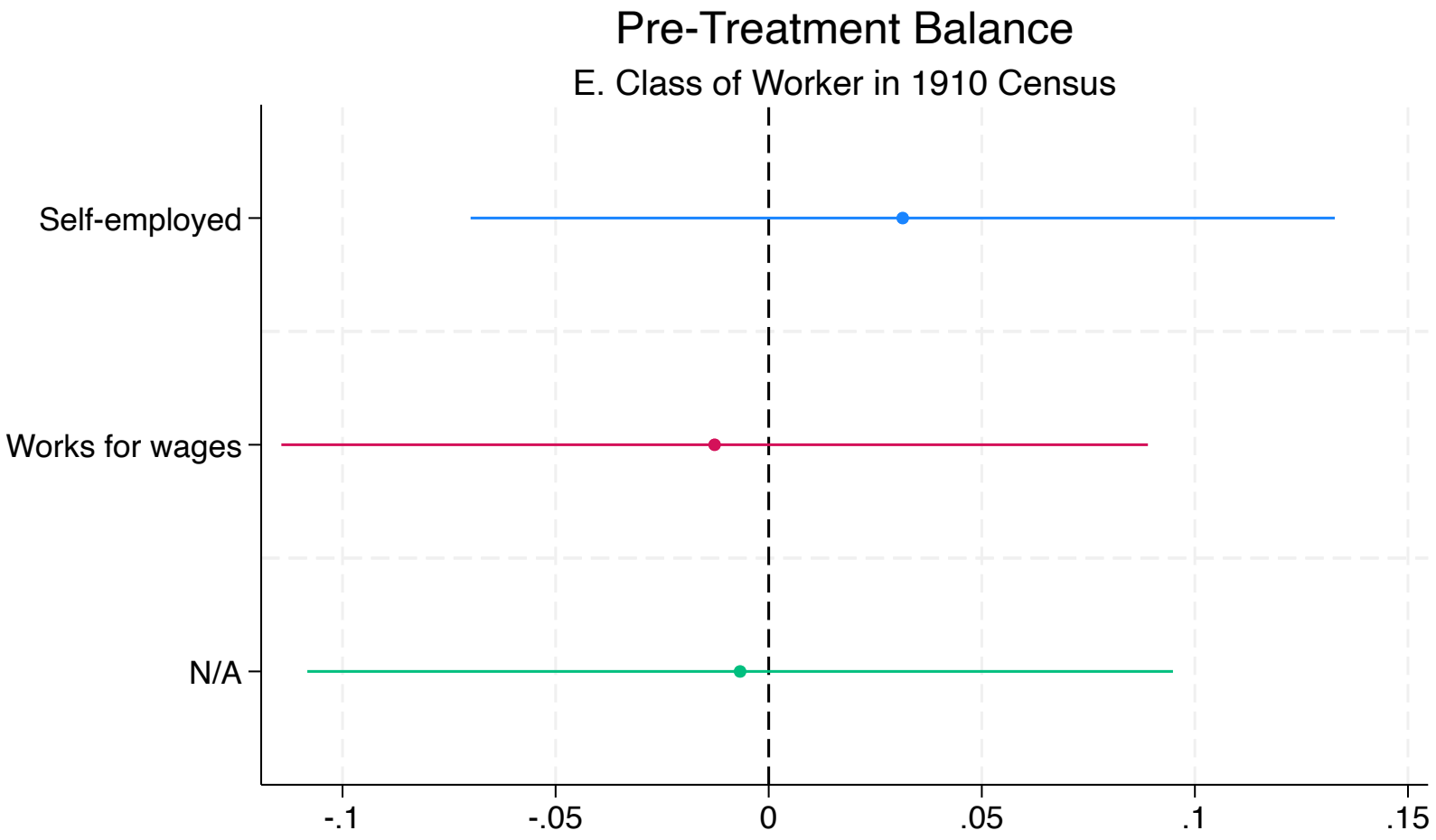
Balance: Among those matched to 1910 Census



▸ Go Back- Balance

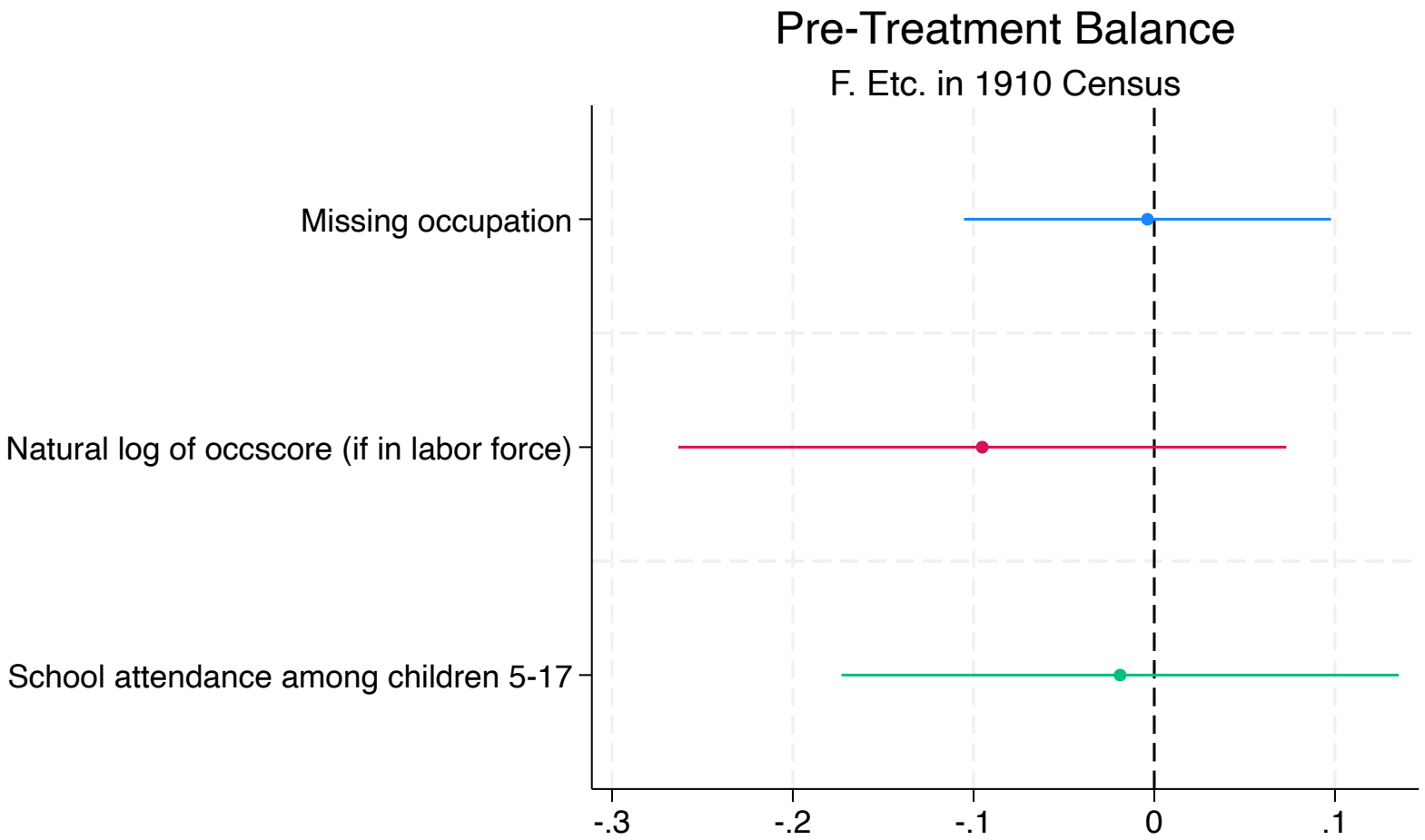
▸ Go Back- Effects

Balance: Among those matched to 1910 Census



Go Back
1920

Balance: Among those matched to 1910 Census



Go Back
1920

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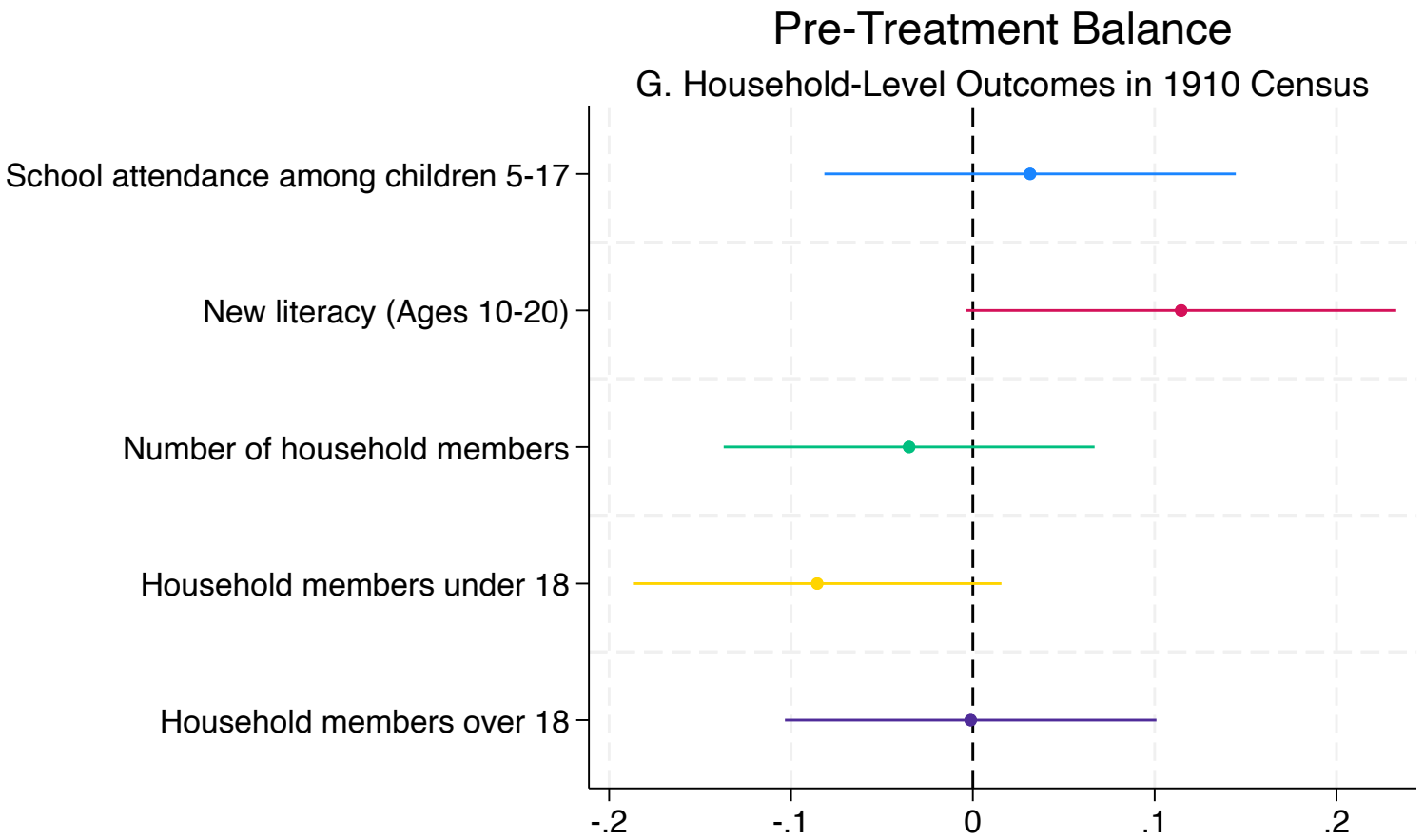


Go Back

1920

1930

Balance: Among those matched to 1910 Census

	No oil by 1918	Oil by 1918	p-value
A. Wealth and Expenditure, 1910			
N	3,345 (95.0%)	175 (5.0%)	
Family owns home	0.71 (0.46)	0.73 (0.44)	0.458
Family owns home: paid off	0.75 (0.43)	0.71 (0.46)	0.346
B. Occupation, 1910			
N	1,229 (94.8%)	68 (5.2%)	
White-Collar	0.03 (0.16)	0.04 (0.21)	0.399
Blue-Collar	0.57 (0.50)	0.51 (0.50)	0.411
Farming	0.41 (0.49)	0.44 (0.50)	0.584
C. Occupation (Child Allottees), 1910			
N	1,491 (95.9%)	63 (4.1%)	
In school	0.85 (0.36)	0.90 (0.30)	0.201
Works	0.15 (0.36)	0.11 (0.32)	0.415

Go Back

Table: Top 10 Cities for Creek Members in 1920

	City	N
1	Muskogee, OK	106
2	Tulsa, OK	53
3	Okmulgee, OK	50
4	Sapulpa, OK	50
5	Kansas City, MO	24
6	Mcalester, OK	22
7	Lawrence, KS	21
8	Kansas City, KS	14
9	Omaha, NE	12
10	Oklahoma City, OK	11

Go Back

	Unlinked	Linked	p-value
1910 Census			
N	2,458 (41.2%)	3,505 (58.8%)	
Male	0.432 (0.495)	0.519 (0.500)	<0.001
Age in 1910	26.102 (17.346)	23.223 (16.216)	<0.001
1920 Census			
N	3,095 (54.4%)	2,591 (45.6%)	
Male	0.425 (0.494)	0.557 (0.497)	<0.001
Age in 1910	25.429 (17.230)	22.084 (15.012)	<0.001
1930 Census			
N	4,180 (73.6%)	1,502 (26.4%)	
Male	0.420 (0.494)	0.667 (0.471)	<0.001
Age in 1910	24.800 (17.186)	21.398 (13.427)	<0.001
1940 Census			
N	4,462 (78.7%)	1,210 (21.3%)	
Male	0.424 (0.494)	0.708 (0.455)	<0.001
Age in 1910	25.016 (17.169)	19.655 (11.797)	<0.001

Go Back

OIL LAND, LEASES AND STOCK.

FOR SALE—Oil leases near producing and drilling wells, cheap. Wanted drilling contract. C. E. Murphy & Co., 316 Lee Bldg.

PRODUCERS OIL EXCHANGE—
Leases and production.
1219 Colcord Bldg. Phone W. 54.
F. L. Mulky, Mgr., H. B. Mulky, Sec.

WANTED—Oil lease in proven field, with or without production. Rollison, Baltimore Bldg.

DRILLING CONTRACT

Can handle the right sort of acreage for drilling proposition; prefer "wild cat" if large acreage. L. D. Kight, 322 Lee Bldg.

OIL LEASE.

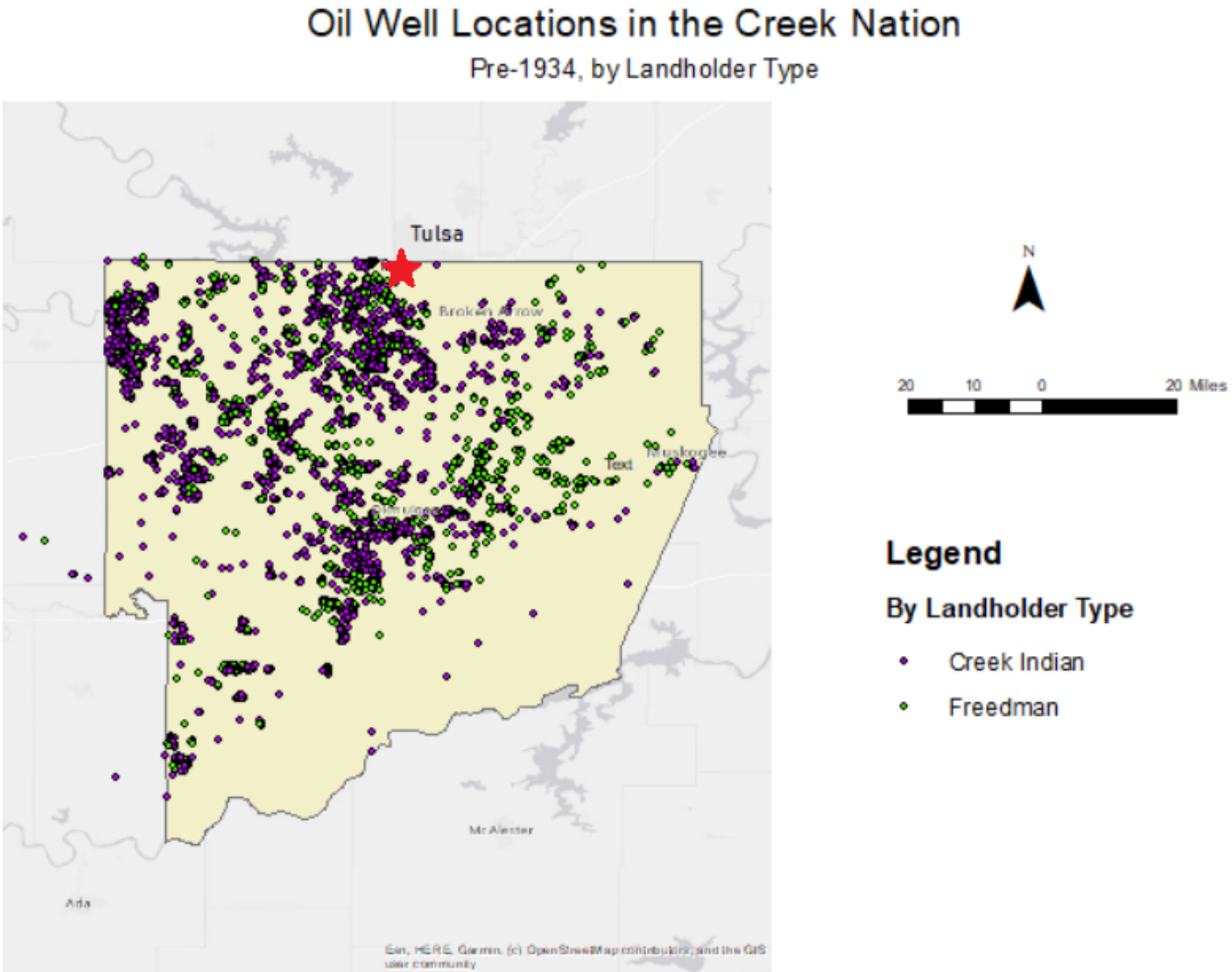
40 acres in Boynton field near production, being N. E. of the N. E. quarter, section 7-14-16. L. D. Kight, 322 Lee Bldg.

GOOD production and royalties, Healdton. 221 Insurance Bldg., O. C. H. W. Williams.

Figure: The Daily Oklahoman, Oklahoma City, OK, Sunday, October 10, 1915, Page 29

Go Back

Data & Methodology



t-test Go Back

Historical Context: Wildcatters and Oil Leases

1. Oil companies hire "lease men" to make "advanced royalty" leases with small landholders for right to dig exploratory holes in their land
    1.1 Lease man identifies land that they might like to bet on
    1.2 Contacts the landholder and leases land for $24-48 annually ($830-1600)
2. Within next few months, "wildcatter" drills hole(s)
3. If land "produces," landholder gets 12.5% of the profit

Same steps for both Indian Allotments and regular landowners, but Bureau of Indian Affairs must approve deal for Freedmen (at first) and Creek Indians (always) Go Back

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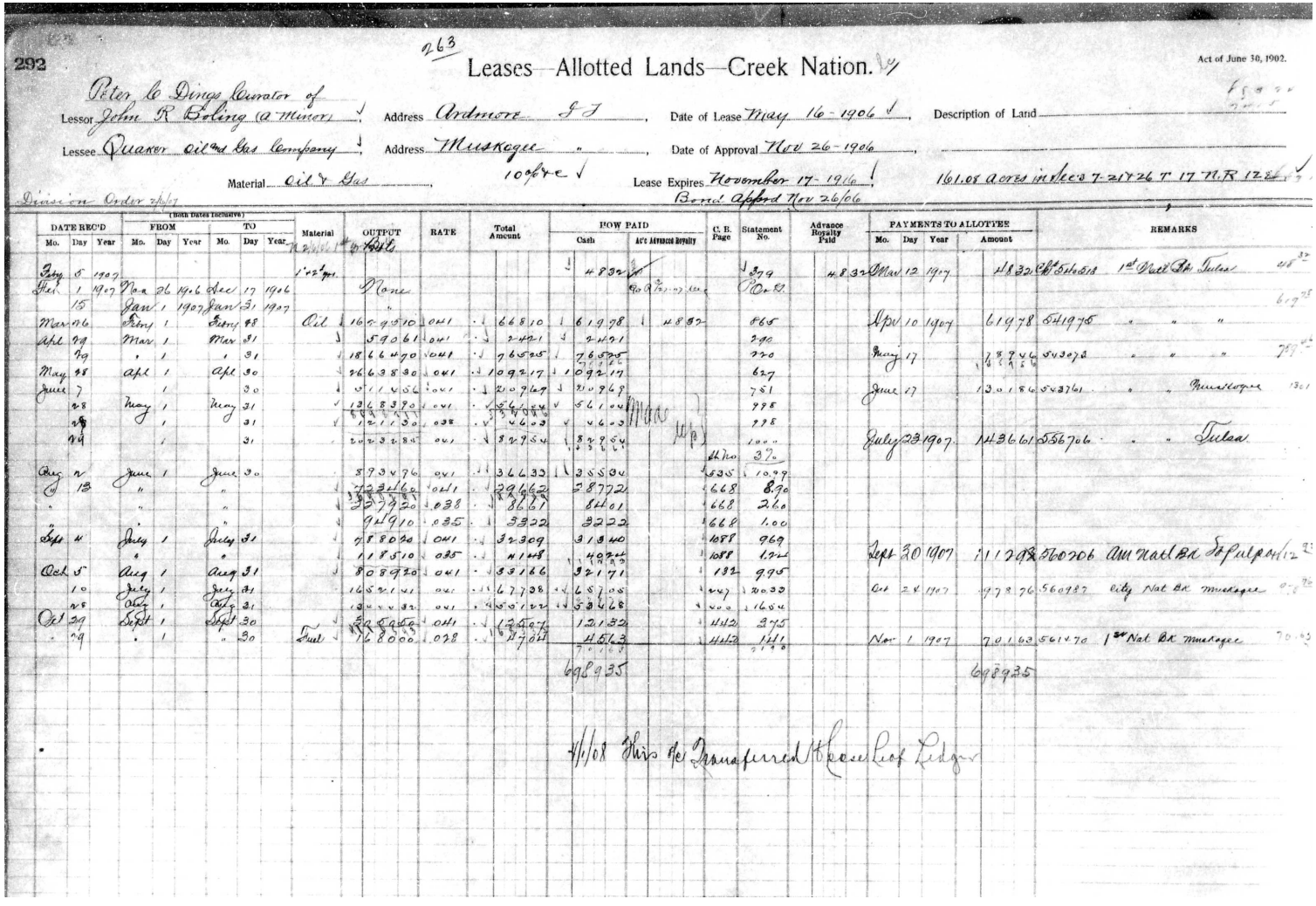


292

263

Leases—Allotted Lands—Creek Nation.

Act of June 30, 1902.

Peter C Dings Curator of
Lessor John R Boling (a Minor) Address Ardmore I T Date of Lease May 16-1906 Description of Land

Lessee Quaker Oil and Gas Company Address Muskogee " Date of Approval Nov 26-1906

Material Oil & Gas 10% Royalty Lease Expires November 17-1916 161.08 acres in Secs 7-21-26 T 17 N R 12 E

Division Order 7/1/07 Bond Approved Nov 26/06

DATE REC'D Mo.	Day	Year	FROM (Both Dates Inclusive) Mo.	Day	Year	TO Mo.	Day	Year	Material	OUTPUT	RATE	Total Amount	ROW PAID Cash	Act't Advance Royalty	C. B. Page	Statement No.	Advance Royalty Paid	PAYMENTS TO ALLOTTEE Mo.	Day	Year	Amount	REMARKS
Feby	8	1907											$832.32			379	$832.32	Mar	12	1907	$832.32	1st Natl Bk Tulsa
Feb	1	1907	Nov	26	1906	Dec	17	1906		None						None						
	15		Jan	1	1907	Jan	31	1907		"												
Mar	16		Feby	1		Feby	28		Oil	165.9510	Ohio	668.10	619.78	$832		465		Apl	10	1907	619.78	541978 " " "
Apl	29		Mar	1		Mar	31			59061	Ohio	242.1	242.1			290						
	29		"	1		"	31			186.4070	Ohio	765.25	765.25			720		May	17		1887.46	543078 " " "
May	28		Apl	1		Apl	30			266.3830	Ohio	1092.17	1092.17			627						
June	7		"	1		"	30			51.1456	Ohio	209.69	209.69			781		June	17		130.186	543761 " " Muskogee
	28		May	1		May	31			13.8390	Ohio	56.64	56.64			975						
	28		"	1		"	31			1121.30	.038	4603	4603			975						
	28		"	1		"	31			2023.285	Ohio	8297.54	8297.54			100		July	23	1907	H36161	556706 " " Tulsa
																Hno 32						
Aug	1		June	1		June	30			593.976	Ohio	3644.33	355.94			635	10.99					
"	13		"			"				4734.60	Ohio	29062	2877.21			668	8.90					
"			"			"				527.20	.038	86.01	84.01			668	2.60					
"			"			"				941.910	.035	3322	3222			668	1.00					
Sept	11		July	1		July	31			7880.30	Ohio	32309	319.40			1088	969					
			"			"				118.510	.035	41.48	40.72			1088	1.24	Sept	30	1907	1117.98	560706 Am Natl Bk St Paul
Oct	5		Aug	1		Aug	31			808.920	Ohio	3316.6	321.71			132	9.95					
	10		July	1		July	31			165.2141	Ohio	677.38	65.705			447	2.033	Oct	24	1907	197.876	560787 City Nat Bk Muskogee
	28		Aug	1		Aug	31			132.1132	Ohio	541.22	53.628			400	1.654					
Oct	29		Sept	1		Sept	30			59.5450	Ohio	244.07	12.132			442	2.75					
	29		"	1		"	30		Dual	16.8000	.038	47.04	46.43			442	1.41	Nov	1	1907	70.163	561470 1st Nat Bk Muskogee
													698.935								698.925	

4/1/08 This Re Transferred to Lease Ledger

Figure: Lease of John Boling, National Archives at Ft. Worth, NAID 734634

▸ Go Back

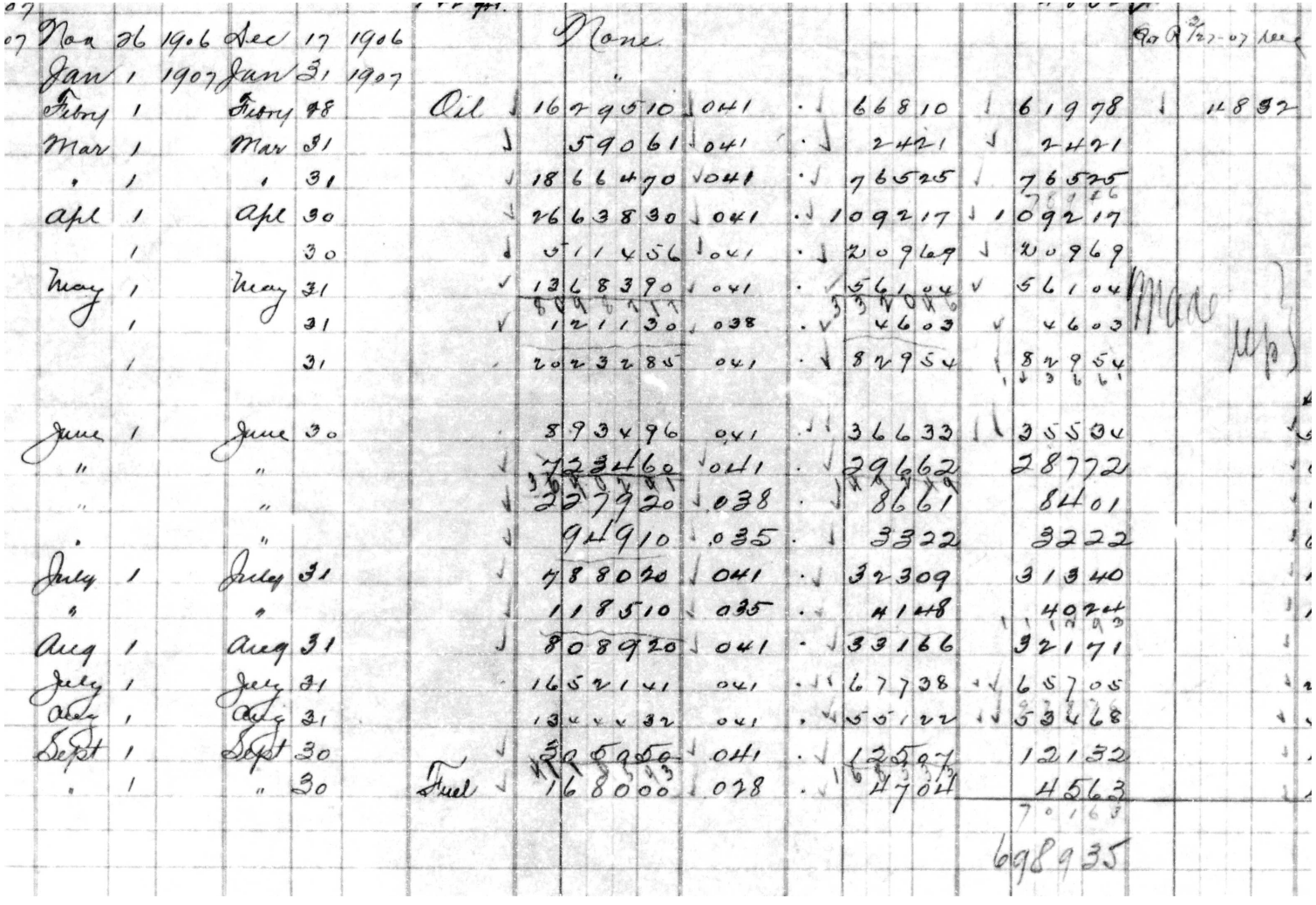


Figure: Lease of John Boling, National Archives at Ft. Worth, NAID 734634

▸ Go Back

Who got oil by 1930?

Table: Oil Discovery by Allottee Race

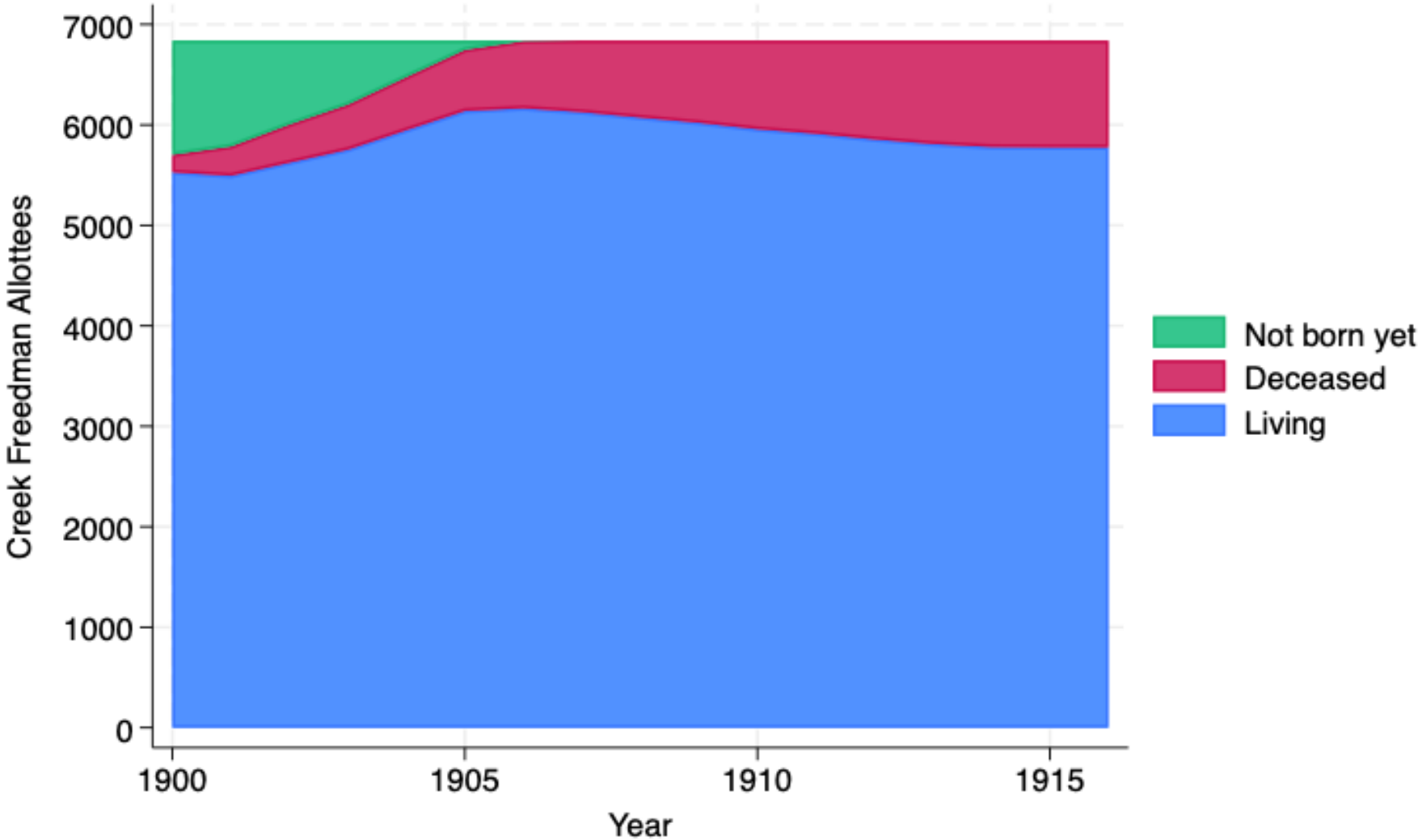
	Creek Indian N=[12,014]	Freedman N=[6,836]	Test
Oil well 1900-1930	0.118 (0.323)	0.116 (0.320)	0.654

	Female N=[9,544]	Male N=[9,306]	Test
Oil well 1905-1930	0.111 (0.315)	0.117 (0.322)	0.198

Go Back

Living sample size between 1900 and 1915

Figure: Living sample size between 1900 and 1915



Effects in 1920

	Estimate	Mean	Observations
A. Wealth and Expenditure, 1920			
Family owns home	-0.018	0.566	2,616
	(0.045)		
Family owns home: paid off	-0.031	0.653	1,481
	(0.059)		
B. Occupation, 1920			
White-Collar	0.081**	0.037	1,472
	(0.038)		
Blue-Collar	0.003	0.602	1,472
	(0.054)		
Farming	-0.085*	0.361	1,472
	(0.051)		
C. Occupation (Child Allottees), 1920			
In school	0.141*	0.760	558
	(0.076)		
Works	0.058	0.249	559
	(0.111)		

Go Back

Effects in 1930

	Estimate	Mean	Observations
A. Wealth and Expenditure, 1930			
Family owns home	0.101*	0.435	1,515
	(0.054)		
Owned house value	2095.700	2733.417	276
	(1380.936)		
B. Occupation, 1930			
White-Collar	0.112**	0.068	1,082
	(0.049)		
Blue-Collar	0.046	0.556	1,082
	(0.065)		
Farming	-0.158***	0.375	1,082
	(0.054)		

Go Back

Effects in 1940

	Estimate	Mean	Observations
A. Wealth and Expenditure, 1940			
Family owns home	0.048	0.370	1,223
	(0.059)		
Owned house value	706.516	1178.108	455
	(700.428)		
B. Occupation, 1940			
White-Collar	0.060	0.077	829
	(0.052)		
Blue-Collar	-0.080	0.669	829
	(0.073)		
Farming	0.019	0.253	829
	(0.065)		
C. Educational Outcomes, 1940			
Completed 2nd grade	0.075***	0.901	1,091
	(0.029)		
Completed high school	0.052	0.112	1,089
	(0.046)		
Completed college	0.066*	0.024	1,087
	(0.036)		
D. Other Employment Characteristics,			
Unemployed (in labor force)	-0.054	0.144	817
	(0.046)		
Employment wages/salary in 1939	138.838	502.132	559
	(136.290)		

Go Back

Mechanisms: Characteristics of Rural and Urban Enumeration Districts

	Rural	Urban	p-value
A. 1920 Census			
N	343 (54.4%)	288 (45.6%)	
Nonwhite home ownership rate	0.40 (0.24)	0.25 (0.23)	<0.001
Share of nonwhite adults with white-collar occupations	0.04 (0.08)	0.08 (0.06)	<0.001
Nonwhite child school attendance	0.61 (0.23)	0.75 (0.16)	<0.001
Literacy among nonwhite children/teenagers	0.91 (0.12)	0.98 (0.03)	<0.001
B. 1930 Census			
N	317 (53.0%)	281 (47.0%)	
Nonwhite home ownership rate	0.31 (0.20)	0.29 (0.23)	0.194
Share of nonwhite adults with white-collar occupations	0.04 (0.07)	0.09 (0.08)	<0.001
Nonwhite child school attendance	0.72 (0.20)	0.79 (0.16)	<0.001
Literacy among nonwhite children/teenagers	0.92 (0.14)	0.98 (0.05)	<0.001
C. 1940 Census			
N	295 (46.2%)	344 (53.8%)	
Nonwhite home ownership rate	0.36 (0.23)	0.23 (0.20)	<0.001
Share of nonwhite adults with white-collar occupations	0.05 (0.07)	0.11 (0.10)	<0.001
Nonwhite child school attendance	0.77 (0.22)	0.84 (0.16)	<0.001
Literacy among nonwhite children/teenagers	0.87 (0.25)	0.92 (0.22)	0.034

Note: Mean (Standard deviation): p-value from a pooled t-test. To be clear, these statistics consider *all* nonwhite households, not only Creek Freedmen households.

Go Back