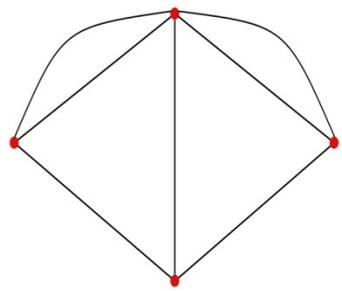


A complex network graph with numerous nodes and edges. The nodes are represented by two types of markers: solid red circles and blue squares with a cross-hatch pattern. The edges are thin grey lines connecting the nodes. A prominent green dashed line curves across the lower half of the graph, separating a cluster of red nodes at the bottom from the rest of the network. The text is overlaid in the center of the image.

**The impact of slave ownership on allegiances in the US Civil War and its lasting legacy on social networks**

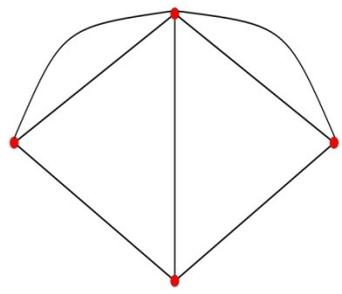
Yuchen Guo, Matthew O. Jackson, Ruixue Jia

“... for Civil War soldiers, the group cohesion and peer pressure that were powerful factors in combat motivation were not unrelated to the complex mixture of patriotism, ideology, concept of duty, honor and manhood, and community or peer pressure that prompted them to enlist in the first place.”



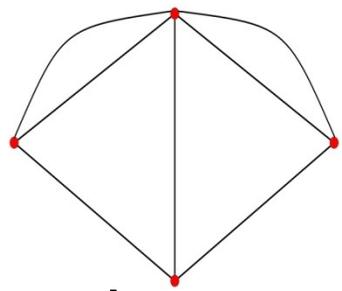
James M. McPherson, *For cause and comrades: Why men fought in the Civil War* (1997).

# Culture and Norms



- Peer transmission of norms of behavior?
- On critical life decisions?
- Did peers influence decisions to join Union vs Confederate Army in US civil war?

# Cadets



- 1638 USMA graduates between 1820 and 1860 (~40 per year)
- Sources:
  - Register of Graduates and Former Cadets, Biographical Register of the Officers and Graduates of the USMA (Cullum 1891)
  - Rebels from West Point, Southern Historical Society Papers, Confederate Military History, Find a Grave...
  - 1860 Census

**Home state**

**Appointment State**

**Cohort**

**Year of birth**

(Born Va.)

William N. Pendleton

(Ap'd Va.)

William Nelson Pendleton:

Born Dec. 26, 1809,

Richmond, VA. — Cadet at the

Military Academy, July 1, 1826, to July 1, 1830 when he was graduated and promoted in the Army to Bvt. Second Lieut.,

2d Artillery, July 1, 1830. Second Lieut., 2d Artillery, July 1, 1830. Served: in garrison at , 1830-31; at the U. S. Military Academy,

as Asst. Professor of Mathematics, Aug. 28, 1831, to (Transferred to 4th Artillery, Oct. 27, 1832) Sep. 8, 1832; and in garrison at ,

1832-33. Resigned, Oct. 31, 1833. — Professor of Mathematics in Bristol College, Pa., 1833-37; and in Delaware College,

Newark, Del., 1837-38. Clergyman, Protestant Episcopal Church, 1837-61 and 1866-83. Rector of Episcopal Diocesan School of

Virginia, Alexandria, Va., 1839-44. Author of "Science a Witness for the Bible," 1860. Joined in the Rebellion of 1861-66 against

the United States.

Died, Jan. 15, 1883, at Lexington, Va.:

Aged 73. Lexington, VA.

**Year of death**

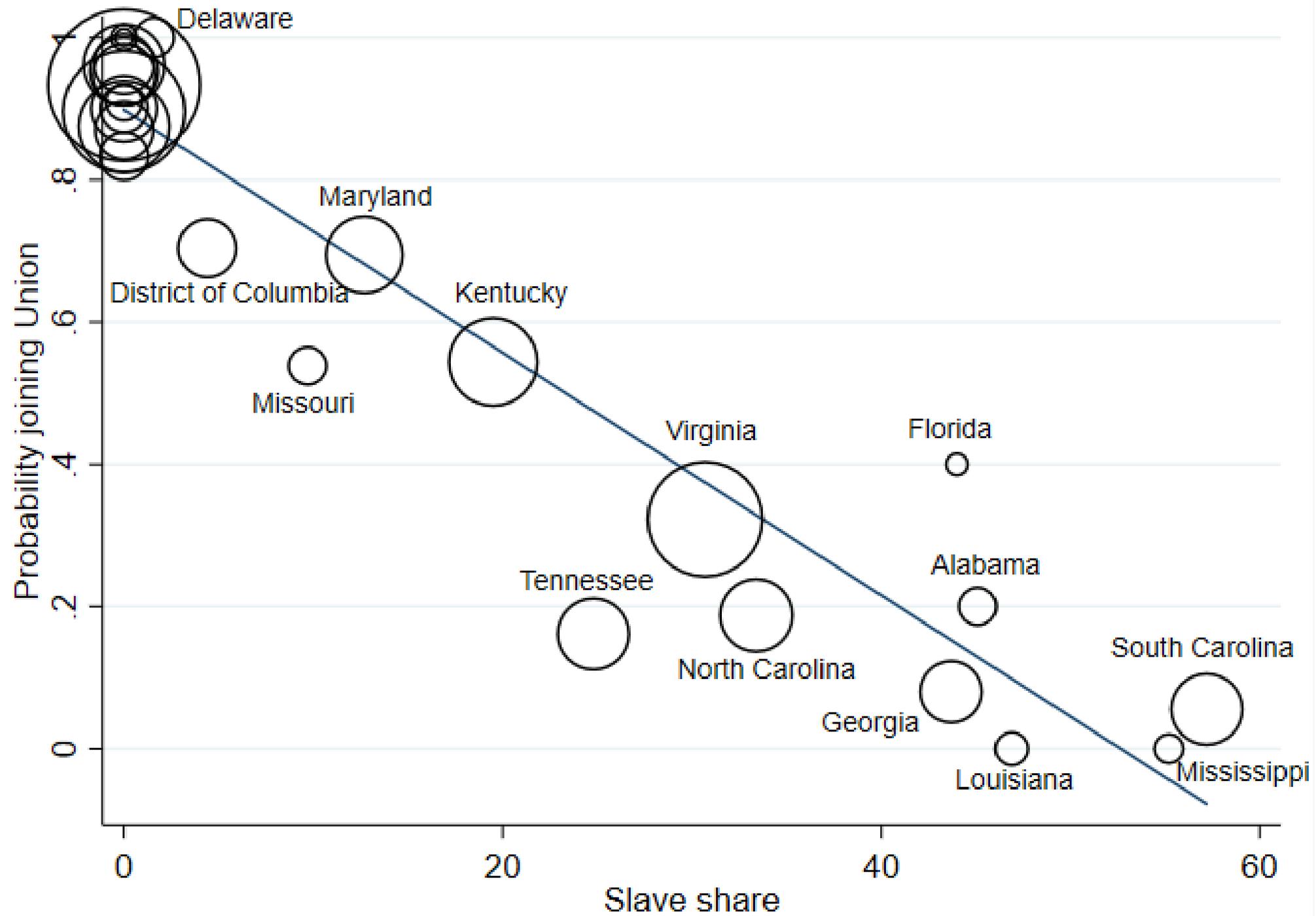
**Join the Confederacy**

## Slave population as percent of state population 1860

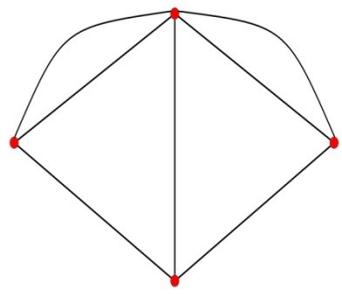
South Carolina	57.2	New Jersey	0.01
Mississippi	55.2	New York	0.0
Louisiana	46.9	Pennsylvania	0.0
Alabama	45.1	Ohio	0.0
Florida	44.0	Illinois	0.0
Georgia	43.7	Indiana	0.0
North Carolina	33.7	Massachusetts	0.0
Virginia	30.7	Wisconsin	0.0
Texas	30.2	Michigan	0.0
Arkansas	25.5	Iowa	0.0
Tennessee	24.8	Maine	0.0
Kentucky	19.5	Connecticut	0.0
Maryland	12.7	California	0.0
Missouri	9.7	New Hampshire	0.0
District of Columbia	4.4	Vermont	0.0
Delaware	1.6	Rhode Island	0.0
		Minnesota	0.0
		Oregon	0.0

# Slave population as percent of state population 1860

South Carolina	57.2	Seceded	New Jersey	0.01
Mississippi	55.2		New York	0.0
Louisiana	46.9		Pennsylvania	0.0
Alabama	45.1		Ohio	0.0
Florida	44.0		Illinois	0.0
Georgia	43.7		Indiana	0.0
North Carolina	33.7		Massachusetts	0.0
Virginia	30.7		Wisconsin	0.0
Texas	30.2		Michigan	0.0
Arkansas	25.5		Iowa	0.0
Tennessee	24.8		Maine	0.0
Kentucky	19.5		Connecticut	0.0
Maryland	12.7		California	0.0
Missouri	9.7	New Hampshire	0.0	
District of Columbia	4.4	Vermont	0.0	
Delaware	1.6	Rhode Island	0.0	
		Border, Mixed Allegiances	Minnesota	0.0
			Oregon	0.0

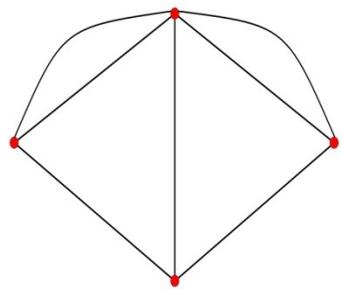


# Cadets



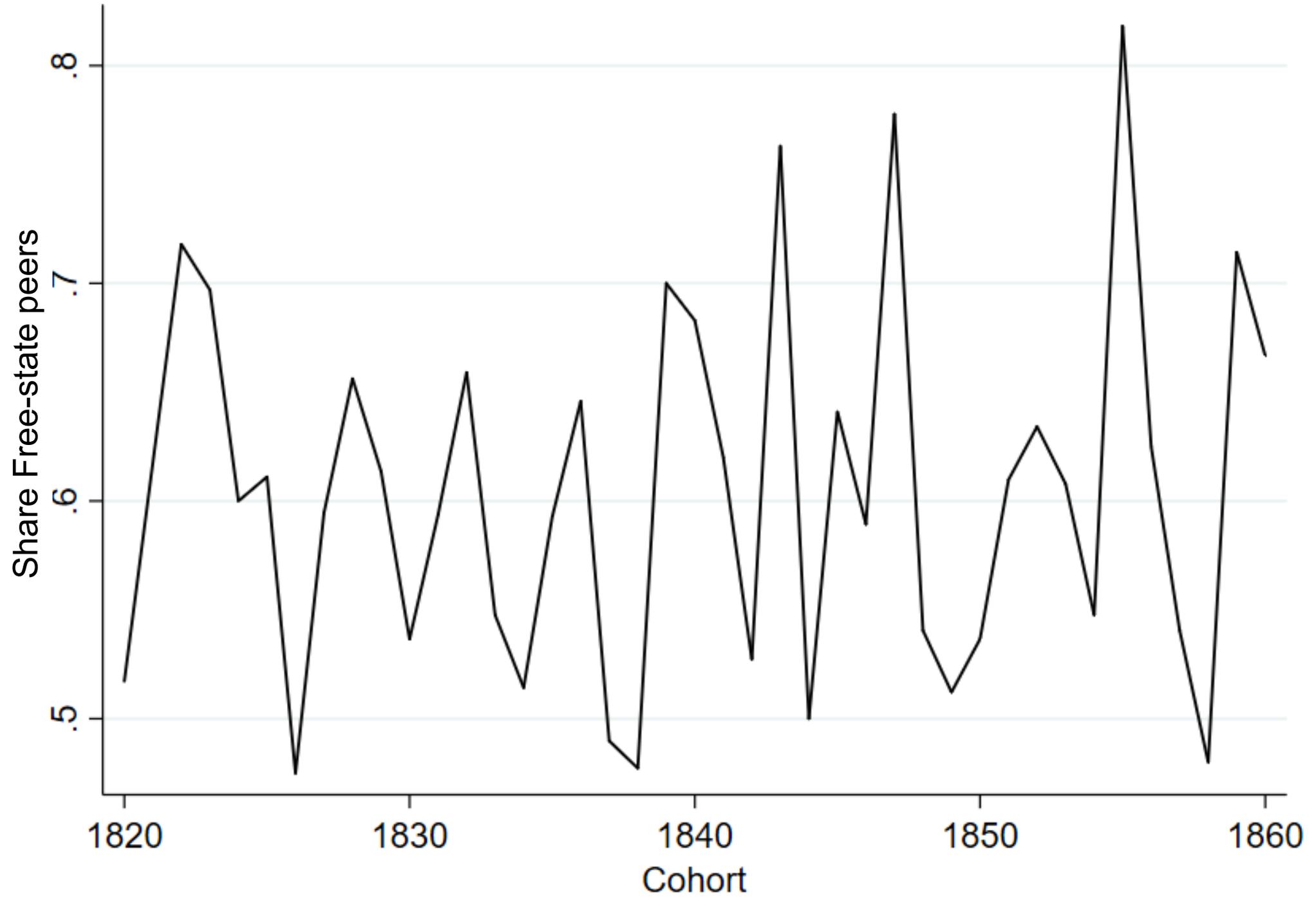
- 1638 USMA graduates between 1820 and 1860 (~40 per year)
- 964 Free, 540 joined war, 91.6% Union
- 674 Slave, 389 joined war, 36.2% Union

# Peer Effects

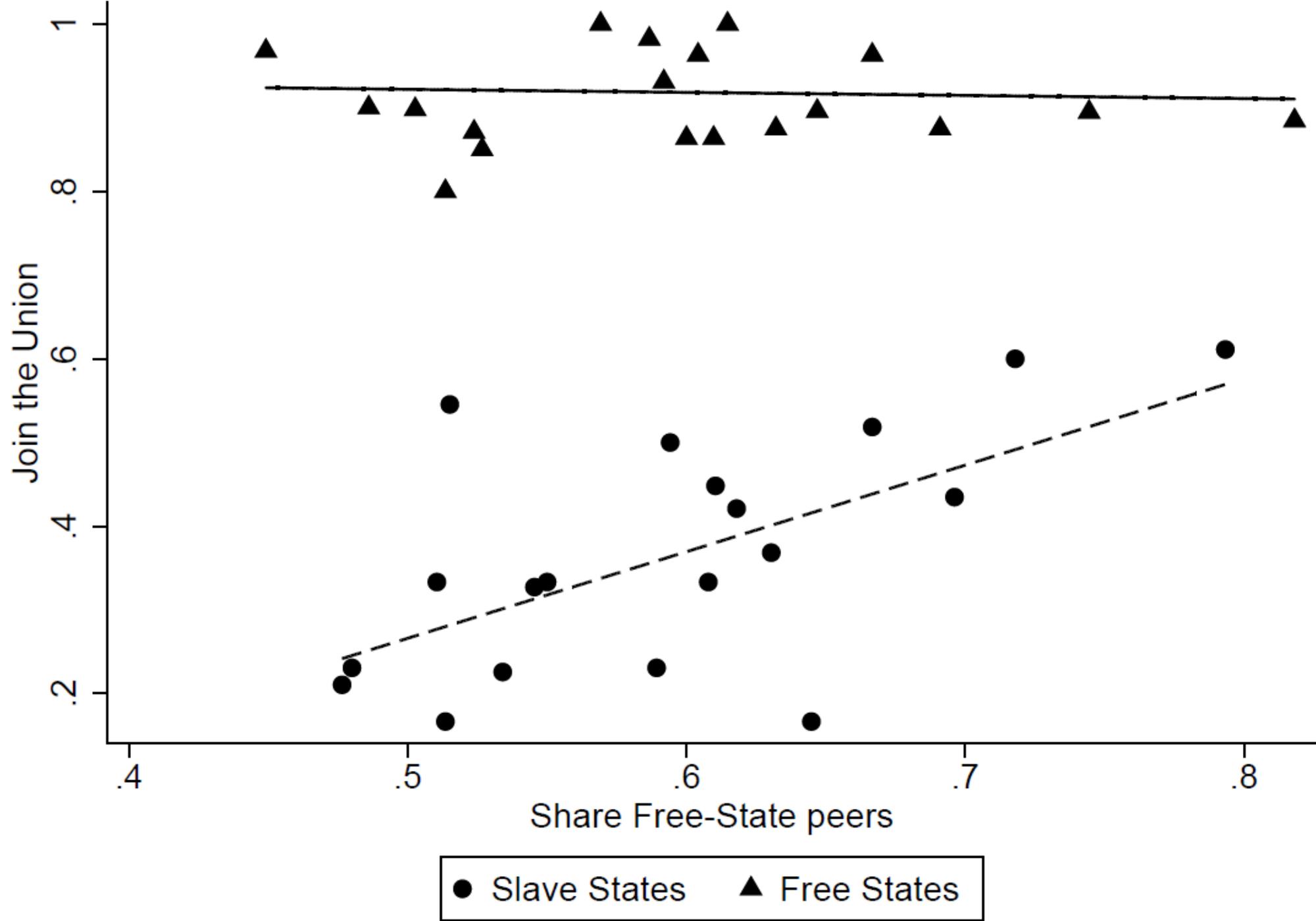


- How does West Point cohort in terms of free vs slave state cadets affects a cadet's choice to join union or confederate army:

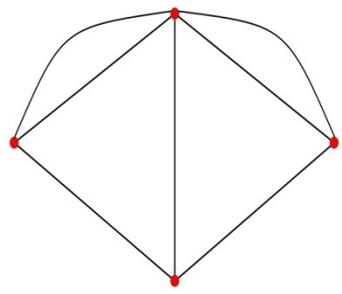
$$Union_{i,s,t} = \beta_0 + \beta_1 Peer_{i,t} + \gamma X_{i,s} + \alpha_s + t + \epsilon_{i,s,t},$$



Dependent var	Join the Union: War Participants							
	Slave-State Cadets				Free-State Cadets			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Share Free-State Peers (sd)	0.080*** (0.023)	0.058*** (0.020)	0.054*** (0.020)	0.056** (0.022)	-0.003 (0.013)	-0.005 (0.013)	-0.006 (0.014)	-0.005 (0.014)
Age in 1860		-0.012 (0.015)	-0.005 (0.016)	0.004 (0.016)		0.006 (0.007)	0.004 (0.007)	-0.001 (0.008)
Class Rank		0.001 (0.001)	0.001 (0.001)	0.002** (0.001)		-0.001** (0.000)	-0.001** (0.000)	-0.001*** (0.000)
Slave Pop. Share (sd)		-0.216*** (0.019)				-0.007 (0.016)		
Cohort		-0.013 (0.015)	-0.005 (0.015)	0.002 (0.016)		0.008 (0.007)	0.007 (0.007)	0.003 (0.008)
Cadet Slave Ownership				-0.276*** (0.046)				
Free-State Father				0.090 (0.070)				0.019 (0.061)
Free-State Mother				0.077 (0.075)				0.034 (0.060)
Free-State Wife				0.061 (0.057)				0.098*** (0.028)
State FEs	N	N	Y	Y	N	N	Y	Y
Dependent var. mean	0.361	0.361	0.361	0.355	0.919	0.919	0.919	0.930
Observations	388	388	388	324	540	540	540	456
R-squared	0.028	0.234	0.287	0.363	0.000	0.017	0.030	0.067



# Economics



- The peer effect depends on a state's slave population
- Operates almost entirely in intermediate range of slavery

## Slave population as percent of state population 1860

South Carolina	57.2	New Jersey	0.01
Mississippi	55.2	New York	0.0
Louisiana	46.9	Pennsylvania	0.0
Alabama	45.1	Ohio	0.0
Florida	44.0	Illinois	0.0
Georgia	43.7	Indiana	0.0
<u>North Carolina</u>	<u>33.7</u>	Massachusetts	0.0
Virginia	30.7	Wisconsin	0.0
Texas	30.2	Michigan	0.0
Arkansas	25.5	Iowa	0.0
Tennessee	24.8	Maine	0.0
Kentucky	19.5	Connecticut	0.0
Maryland	12.7	California	0.0
Missouri	9.7	New Hampshire	0.0
District of Columbia	4.4	Vermont	0.0
Delaware	1.6	Rhode Island	0.0
		Minnesota	0.0
		Oregon	0.0

	Join the Union: War Participants	
	Heavy Slave States (>33%)	Border and Mid Slave States (1-33%)
Share Free-State Peers	.01 (.038)	.072** (.029)
Share Border-State Peers	-.044 (.032)	.009 (.033)
Observations	122	266
R <sup>2</sup>	.149	.205

B. Different Groups of States

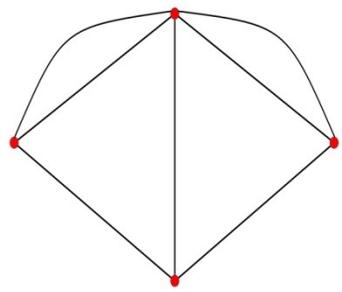
Join the Union: War Participants

Slave Share	Heavy-Slave State (>33%) Cadets	Border and Mid-Slave State (1%-33%) Cadets	Free State (≤ 1%) Cadets
	(1)	(2)	(3)
Share Free-State Peers (sd)	0.010 (0.038)	0.072** (0.029)	-0.013 (0.014)
Share Border-State Peers (sd)	-0.044 (0.032)	0.009 (0.033)	-0.018 (0.017)
Controls	Y	Y	Y
State FEs	Y	Y	Y
Dependent var.mean	0.107	0.477	0.919
Observations	122	266	540
R-squared	0.149	0.205	0.033

	<b>Join the Union: War Participants from Slave States</b>
Share Free-State Peers	.076*** (.023)
Share Free-State Peers x Slave Owner	-.083** (.037)
Observations	388
R <sup>2</sup>	.357

Dependent var	Join the Union: War Participants		
	Slave Ownership by the Cadet's:		
	State	County	Self
	(1)	(2)	(3)
<b>A. Interaction with Slave Variables</b>			
Share Free-State Peers (sd)	0.053*** (0.019)	0.053** (0.021)	0.076*** (0.023)
Share Free-State Peers (sd) $\times$ Slave Pop. Share (State)	-0.030* (0.017)		
Share Free-State Peers (sd) $\times$ Slave Pop. Share (County)		-0.036* (0.018)	
Share Free-State Peers (sd) $\times$ Cadet Slave Ownership			-0.083** (0.037)
Controls	Y	Y	Y
State FEs	Y	Y	Y
Dependent var.mean	0.361	0.358	0.361
Observations	388	352	388
R-squared	0.291	0.341	0.357

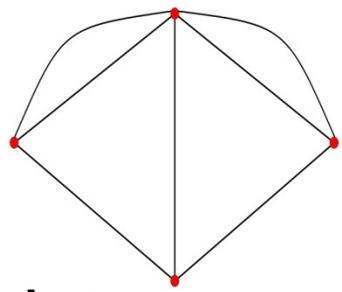
# How Did Choice Influence Career?



- We can see highest rank, whether became a general, whether died...
- How did joining the union affect this?
- IV with fraction of Free-state peers

	OLS			IV		
	Rank	General	Died	Rank	General	Died
	(1)	(2)	(3)	(4)	(5)	(6)
<b>A. Slave-State Cadets (&gt;1%)</b>						
Joining the Union	-1.567*** (0.194)	-0.352*** (0.054)	-0.166*** (0.046)	-1.858*** (0.346)	-0.365*** (0.099)	-0.135* (0.071)
Controls	Y	Y	Y	Y	Y	Y
State FEs	Y	Y	Y	Y	Y	Y
Dependent var. mean	6.987	0.438	0.206	6.987	0.438	0.206
Observations	381	381	388	381	381	388
F-statistic				9.911	9.911	10.255
R-squared	0.317	0.190	0.097	0.267	0.149	0.058
<b>B. Slave-State Cadets (1%-33%)</b>						
Joining the Union	-1.505*** (0.223)	-0.314*** (0.061)	-0.170*** (0.048)	-1.717*** (0.513)	-0.365** (0.147)	-0.168* (0.091)
Controls	Y	Y	Y	Y	Y	Y
State FEs	Y	Y	Y	Y	Y	Y
Dependent var. mean	6.802	0.407	0.184	6.802	0.407	0.184
Observations	263	263	266	263	263	266
F-statistic				8.916	8.916	9.189
R-squared	0.314	0.191	0.082	0.262	0.144	0.070

# Summary



- Quasi-random fluctuations in peer compositions impact cadet decisions of which army to join
- Effect is concentrated in border/mid-slave states and among non-slave owners
- Effect is stronger for those who fought together in Mexican-American war and served in military prior to Civil War
- Decisions had ex post consequences