

# Household Inequality, Corporate Capital Structure and Entrepreneurial Dynamism

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# This paper

- Studies the relationship between “local” wealth inequality and corporate capital structure
- Connecting wealth inequality in US counties with the capital structure choices of start-up firms
  - Small/Young firms should be particularly dependent on local financial conditions

# Motivation

- Growing interest in Income and Wealth inequality
  - (Engermann and Sokoloff, 2002; Rajan and Ramcharan, 2011)
- Understanding the determinants of supply of financial capital is important
  - Political Economy of Finance: what elements in the economic environment are likely to affect financial outcomes?  
(Perotti and Von Thadden, 2006; Rajan and Zingales, 2006; Calomiris and Haber, 2014; Degryse et al., 2014)
- Entrepreneurship
  - We want to understand how young firms finance their ventures  
(Robb and Robinson, 2012; Berger, Cerqueiro and Penas, 2014)

# Preview of the Results

- Young firms located in more unequal counties are
  - more likely to be financed with bank debt and family sources
  - less likely to be financed with venture capital and angel equity
  - less likely to be high-tech or related to risky/innovative activities
- The results are stronger in counties where judges are elected
- Inequality positively affects the probability that banks win a case in States where judges are elected

# Theoretical Underpinnings

- Median Voter Model: individuals vote what financial system a constituency should have

The choice is between **Banks** and **Equity Markets**

**Banks:** Risk Averse

**Equity Markets:** More Risk Takers

- Individuals are risk averse and endowed with undiversifiable human capital
- Individuals may have diversifiable financial wealth
- More unequal societies: median voter does not have financial wealth
  - More likely to choose for banks or family financing
- More equal societies: median voter may have financial wealth
  - More likely to choose for equity markets

# Main Predictions

- Greater wealth inequality will lead **firm bank and family financing** to be a larger fraction of total financing
- Greater wealth inequality will lead to **equity** obtained from **angels and venture capitalists** to be a smaller fraction of total financing
- The probability that a new business venture will be a “riskier” **high tech** firm will, ceteris paribus, decrease in county inequality

# A county measure of Wealth Inequality

- Use the census of the US agriculture in 1890 and obtain data on land distribution (Rajan and Ramcharan, 2011)
  - In particular, number of plantations per size and per county
- Construct an Gini Index based on plantation data
- Land was still the major form of wealth
- Evidence that more unequal states/counties in the XIX century are the more unequal states/counties today (Lagerlöf, 2005; Nunn, 2008)

## ALABAMA.

NUMBER OF FARMS CLASSIFIED ACCORDING TO ACREAGE, WITH  
AVERAGE SIZE.

COUNTIES.		Total.	Under 10 acres.	10 and under 20 acres.	20 and under 50 acres.	50 and under 100 acres.	100 and under 500 acres.	500 and under 1,000 acres.	1,000 acres and over.	Aver- age size of farm.
1	The State .....	157,772	5,127	12,004	51,861	30,414	52,736	4,054	1,576	126
2	Autauga .....	1,607	126	97	506	300	395	59	34	139
3	Baldwin .....	830	88	38	51	30	94	9	20	220
4	Barbour .....	3,769	75	126	1,572	789	1,049	113	65	135
5	Bibb .....	1,103	9	22	204	240	563	43	22	178
6	Blount .....	2,926	46	182	608	760	1,300	26	4	114
7	Bullock .....	3,106	52	165	1,501	649	646	73	20	95
8	Butler .....	2,650	69	157	1,051	518	765	62	28	120
9	Calhoun .....	1,977	34	121	634	418	726	42	2	108
10	Chambers .....	2,670	28	63	859	667	938	94	21	134
11	Cherokee .....	2,161	27	102	507	508	921	32	4	126
12	Chilton .....	1,758	23	61	405	453	771	34	11	138
13	Choctaw .....	2,353	92	323	802	326	680	83	36	144
14	Clarke .....	3,357	264	612	926	382	959	142	72	154
15	Clay .....	2,258	23	180	507	641	881	22	4	108
16	Cleburne .....	1,764	28	113	410	386	795	30	2	118
17	Coffee .....	1,926	21	33	445	280	1,071	61	15	157
18	Colbert .....	1,597	14	162	577	249	510	69	16	138
19	Conceh .....	1,961	127	142	600	370	636	61	25	130
20	Coosa .....	2,156	23	159	625	433	851	50	15	129
21	Covington .....	1,222	5	25	117	169	839	40	18	228



# Endogeneity

- We construct a **county** level measure of Wealth inequality...
- ...using data from the XIX century
  - Arguably predetermined
- Control for Industry Fixed effects, State Fixed effects, State Trends and Industry Trends
- The coefficient of wealth inequality becomes larger the more controls we introduce (Altonji et al, 2005; Nunn and Wantchekon, 2012)

# Individuals vote...

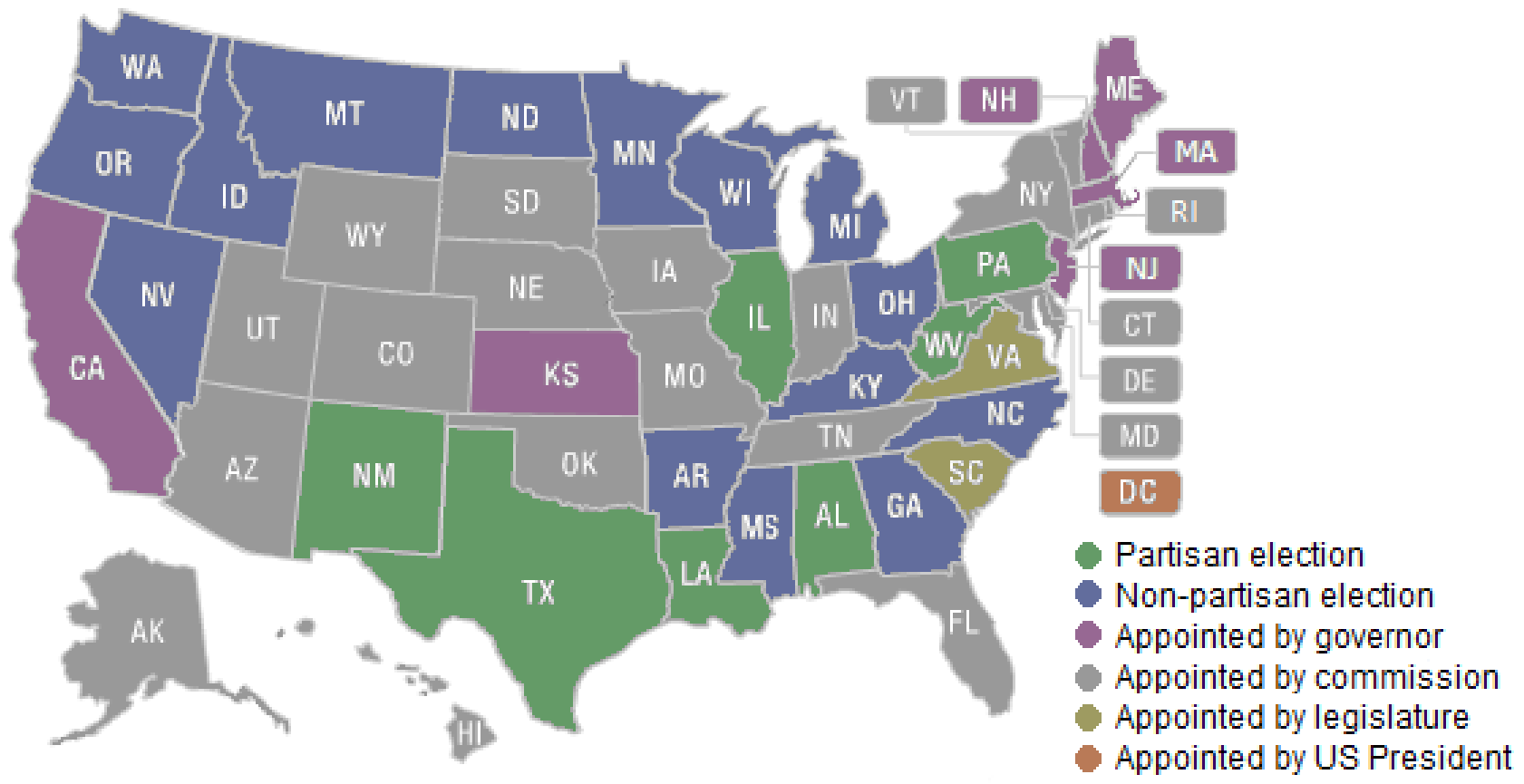
- The analysis focuses on firms located on a certain county
- What do US counties vote for?

## Judges

1. See if the capital structure results are stronger in counties located in states where judges are elected
2. Check directly the decisions taken by judges

Are judges located in more unequal counties from states where judges are elected more likely to decide in favor of banks?

# Judicial Selection in the US



# Data

- Wealth/Land Inequality: US Census of Agriculture, 1890
- Firms Financing and Entrepreneurial Dynamics:
  - Kauffman Survey.  
Mostly data on capital structure, 2004-2008
- Panel Study on Entrepreneurial Dynamics II  
Mostly data on what entrepreneurs do

Variable Name	Number of Observations	Mean	Standard Deviation	10%	Median (50%)	90%
<i>Dependent Variables</i>						
Firm Is Proprietorship	14,051	0.35	0.48	0	0	1
Firm Family Financing	7,228	0.01	0.08	0.00	0.00	0.00
Firm Angel and Venture Capital Financing	7,229	0.02	0.11	0.00	0.00	0.00
Firm Owners' Personal Bank Financing	10,465	0.07	0.20	0.00	0.00	0.30
Firm Bank Financing	10,534	0.10	0.24	0.00	0.00	0.47
Firm is High Tech	15,328	0.31	0.46	0	0	1
<i>Main Independent Variable</i>						
County Inequality in 1890	13,908	0.44	0.14	0.28	0.42	0.64
<i>Control Variables</i>						
<i>Firm Characteristics</i>						
Firm Total Assets	14,015	9.41	3.71	1.79	10.23	12.91
Firm ROA	12,016	0.26	2.26	-0.91	0.04	1.67
Firm Tangibility	12,602	0.56	0.37	0.00	0.64	1.00
Firm Number of Owners	14,039	0.91	0.40	0.69	0.69	1.39
<i>Main Owner Characteristics</i>						
Main Owner Is Female	14,006	0.27	0.44	0	0	1
Main Owner Is Black	14,050	0.07	0.25	0	0	0
Main Owner Has At Least College Degree	13,706	0.55	0.50	0	1	1
Main Owner Is Born in the US	13,997	0.91	0.29	1	1	1
Main Owner's Work Experience	14,002	13.49	10.96	1	11	30
<i>State and County Characteristics</i>						
State GDP	13,875	10.65	0.14	10.51	10.64	10.80
County Population	13,875	905,644	1,557,066	42,269	405,142	2,015,355
County Catholic to Protestant Ratio	13,870	4.14	6.29	0.18	1.84	11.52
County Whites to Total Population Ratio	13,875	0.82	0.13	0.67	0.85	0.96
County Votes for Democrats to Total Votes Ratio	13,875	0.49	0.13	0.32	0.48	0.67
County Personal Income Per Capita	13,875	10.48	0.54	10.17	10.47	10.85
County Nonfarm Establishments Per Capita	13,875	0.03	0.01	0.02	0.03	0.03
County Federal Government Expenditures Per Capita	13,875	7.46	6.62	3.99	6.34	11.07
County Land Area	13,875	14.41	0.64	13.78	14.46	15.06

# Results

Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Dependent Variable	Firm Angel and Venture Capital Financing			Firm Owners' Personal Bank Financing			Firm Bank Financing		
County Inequality in 1890	-0.0767*** (0.000)	0.0544 (0.900)	-0.234*** (0.000)	0.407* (0.066)	0.413* (0.060)	0.398*** (0.000)	0.366 (0.117)	0.363 (0.116)	0.351*** (0.000)
Firm Total Assets <sub>t-1</sub>	0.108*** (0.000)	0.0999*** (0.004)	0.0982*** (0.000)	0.111*** (0.000)	0.112*** (0.000)	0.111*** (0.000)	0.135*** (0.000)	0.138*** (0.000)	0.137*** (0.000)
Firm ROA <sub>t-1</sub>	-0.105*** (0.000)	-0.104*** (0.001)	-0.102*** (0.000)	-0.0213 (0.112)	-0.0213 (0.122)	-0.0209*** (0.000)	-0.00905 (0.506)	-0.00842 (0.545)	-0.00860*** (0.000)
Firm Tangibility <sub>t-1</sub>	-0.000109 (0.983)	-0.0319 (0.742)	-0.0254*** (0.000)	0.170*** (0.009)	0.182*** (0.004)	0.189*** (0.000)	0.186*** (0.001)	0.197*** (0.000)	0.196*** (0.000)
Firm Number of Owners <sub>t-1</sub>	0.476*** (0.000)	0.500*** (0.000)	0.488*** (0.000)	-0.132*** (0.009)	-0.128*** (0.008)	-0.120*** (0.000)	-0.0655 (0.259)	-0.0610 (0.269)	-0.0565*** (0.000)
Main Owner Is Female	-0.245*** (0.000)	-0.261** (0.011)	-0.284*** (0.000)	0.00204 (0.961)	-0.00829 (0.835)	-0.0127*** (0.000)	-0.0276 (0.553)	-0.0312 (0.501)	-0.0324*** (0.000)
Main Owner Is Black	-0.0320*** (0.000)	0.0355 (0.808)	0.110*** (0.000)	-0.162* (0.058)	-0.155* (0.074)	-0.165*** (0.000)	-0.197* (0.079)	-0.188* (0.093)	-0.191*** (0.000)
Main Owner Has At Least College Degree	0.0458*** (0.000)	0.0613 (0.607)	0.0620*** (0.000)	0.0542 (0.241)	0.0593 (0.197)	0.0667*** (0.000)	0.0407 (0.330)	0.0442 (0.291)	0.0480*** (0.000)
Main Owner Is Born in the US	0.122*** (0.000)	0.113 (0.237)	0.0204*** (0.000)	0.0379 (0.712)	0.0416 (0.684)	0.0481*** (0.000)	-0.00802 (0.921)	-0.00742 (0.927)	-0.00384*** (0.003)
Main Owner's Work Experience	-0.00537*** (0.000)	-0.00378 (0.264)	-0.00257*** (0.000)	-0.00142 (0.473)	-0.00143 (0.470)	-0.00162*** (0.000)	-0.00104 (0.625)	-0.00109 (0.609)	-0.00125*** (0.000)
State GDP <sub>t-1</sub>	-1.540*** (0.000)	--	--	0.175 (0.770)	--	--	0.241 (0.711)	--	--
County Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State Fixed Effects	Yes (47)	--	--	Yes (47)	--	--	Yes (47)	--	--
Year Fixed Effects	Yes (3)	--	--	Yes (3)	--	--	Yes (3)	--	--
2-digit Industry Fixed Effects	Yes (23)	Yes (23)	--	Yes (23)	Yes (23)	--	Yes (23)	Yes (23)	--
State*Year Fixed Effects	No	Yes (193)	Yes (193)	No	Yes (193)	Yes (193)	No	Yes (193)	Yes (193)
Industry*Year Fixed Effects	No	No	Yes (65)	No	No	Yes (65)	No	No	Yes (65)
Number of Observations	4,303	4,307	4,307	6,200	6,204	6,204	6,236	6,240	6,240
Pseudo R-squared	0.262	0.360	0.439	0.085	0.113	0.123	0.100	0.120	0.129
Semi-Elasticity for a St. Dev. Change in County Inequa.	-9.3%	6.6%	-28.5%	28.3%	28.8%	27.7%	20.8%	20.7%	20.0%

# Results

Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Dependent Variable	Firm Is Proprietorship			Firm Family Financing			Firm is High Tech		
County Inequality in 1890	0.924*** (0.000)	0.925*** (0.000)	0.956*** (0.000)	0.0855*** (0.000)	0.0949*** (0.000)	0.121*** (0.000)	-1.229** (0.026)	-0.660** (0.030)	-1.291** (0.021)
Firm Total Assets <sub>t-1</sub>	-0.193*** (0.000)	-0.196*** (0.000)	-0.198*** (0.000)	0.00286*** (0.000)	0.00224*** (0.000)	0.00422*** (0.000)	-0.0104 (0.642)	-0.0724*** (0.000)	-0.0102 (0.651)
Firm ROA <sub>t-1</sub>	0.0368*** (0.000)	0.0384*** (0.000)	0.0378*** (0.000)	-0.0450*** (0.000)	-0.0428*** (0.000)	-0.0388*** (0.000)	-0.0200 (0.205)	0.0172* (0.060)	-0.0230 (0.152)
Firm Tangibility <sub>t-1</sub>	0.704*** (0.000)	0.709*** (0.000)	0.709*** (0.000)	0.221*** (0.000)	0.212*** (0.000)	0.220*** (0.000)	-0.760*** (0.000)	-0.813*** (0.000)	-0.796*** (0.000)
Firm Number of Owners <sub>t-1</sub>	-2.703*** (0.000)	-2.732*** (0.000)	-2.768*** (0.000)	0.138*** (0.000)	0.147*** (0.000)	0.140*** (0.000)	0.313*** (0.006)	0.0750 (0.387)	0.324*** (0.005)
Main Owner Is Female	0.256*** (0.007)	0.259*** (0.007)	0.256*** (0.009)	0.0233*** (0.000)	0.0240*** (0.000)	0.0437*** (0.000)	-0.364*** (0.004)	-0.277*** (0.000)	-0.375*** (0.004)
Main Owner Is Black	0.0296 (0.833)	0.0275 (0.846)	0.0219 (0.877)	0.0415*** (0.000)	0.0314*** (0.000)	0.0420*** (0.000)	0.477*** (0.001)	0.169 (0.150)	0.492*** (0.001)
Main Owner Has At Least College Degree	-0.377*** (0.000)	-0.379*** (0.000)	-0.381*** (0.000)	-0.0541*** (0.000)	-0.0560*** (0.000)	-0.0511*** (0.000)	0.314*** (0.000)	0.459*** (0.000)	0.308*** (0.001)
Main Owner Is Born in the US	0.224* (0.095)	0.222 (0.101)	0.228* (0.088)	0.0949*** (0.000)	0.0943*** (0.000)	0.0931*** (0.000)	-0.303** (0.029)	-0.322*** (0.002)	-0.302** (0.034)
Main Owner's Work Experience	-0.00148 (0.616)	-0.00138 (0.644)	-0.00131 (0.657)	-0.00545*** (0.000)	-0.00577*** (0.000)	-0.00500*** (0.000)	0.0185*** (0.000)	0.0196*** (0.000)	0.0187*** (0.000)
State GDP <sub>t-1</sub>	0.397 (0.483)	-- --	-- --	-1.654*** (0.000)	-- --	-- --	-0.0325 (0.964)	-- --	-- --
County Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State Fixed Effects	Yes (45)	--	--	Yes (47)	--	--	Yes (46)	--	--
Year Fixed Effects	Yes (3)	--	--	Yes (3)	--	--	Yes (3)	--	--
2-digit Industry Fixed Effects	Yes (22)	Yes (22)	--	Yes (23)	Yes (23)	--	Yes (6)	No	--
State*Year Fixed Effects	No	Yes (178)	Yes (178)	No	Yes (191)	Yes (191)	No	Yes (189)	Yes (189)
Industry*Year Fixed Effects	No	No	Yes (59)	No	No	Yes (65)	No	No	Yes (15)
Number of Observations	8,483	8,445	8,435	4,304	4,308	4,308	4,596	8,516	4,494
Pseudo R-squared	0.331	0.334	0.338	0.155	0.242	0.301	0.369	0.146	0.363
Semi-Elasticity for a St. Dev. Change in County Inequality	9.0%	9.1%	9.4%	14.5%	16.1%	20.4%	-11.0%	-3.7%	-13.7%

# Inequality and Judicial Selection

Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>Dependent variable</i>	<i>Firm Angel and Venture Capital Financing</i>			<i>Firm Owners' Personal Bank Financing</i>			<i>Firm Bank Financing</i>		
<b>Partisan interaction effect on firm financing</b>									
County Inequality in 1890	0.0566*** (0.000)	0.260*** (0.000)	-0.0291*** (0.000)	0.329 (0.200)	0.345*** (0.000)	0.328*** (0.000)	0.317 (0.210)	0.317*** (0.000)	0.310*** (0.000)
Partisan Dummy	0.752*** (0.000)	7.553*** (0.000)	8.706*** (0.000)	-0.301 (0.120)	5.509*** (0.000)	5.311*** (0.000)	-0.146 (0.519)	4.542*** (0.000)	4.714*** (0.000)
County Inequality in 1890 * Partisan Dummy	-1.699*** (0.000)	-2.317*** (0.000)	-2.192*** (0.000)	0.522 (0.172)	0.471*** (0.000)	0.501*** (0.000)	0.332 (0.429)	0.287*** (0.000)	0.253*** (0.000)
<i>Semi-Elasticity of the Interaction Term for a St. Dev. Change in County Inequality</i>	-206.90%	-282.20%	-267.03%	36.34%	32.81%	34.86%	18.92%	16.39%	14.41%
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State Fixed Effects	Yes	--	--	Yes	--	--	Yes	--	--
Year Fixed Effects	Yes	--	--	Yes	--	--	Yes	--	--
2-digit Industry Fixed Effects	Yes	Yes	--	Yes	Yes	--	Yes	Yes	--
State*Year Fixed Effects	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Industry*Year Fixed Effects	No	No	Yes	No	No	Yes	No	No	Yes
Number of Observations Panel B	4,296	4,296	4,296	6,194	6,194	6,194	6,229	6,229	6,229



# Inequality and Judicial Selection

Model	(1)	(2)	(3)	(4)	(5)	(6)
<i>Dependent Variable</i>	<i>Firm is proprietorship</i>			<i>Firm Family Financing</i>		
<b>Partisan interaction effect on firm ownership</b>						
County Inequality in 1890	0.786** (0.014)	0.782** (0.015)	0.778** (0.014)	0.300 (0.182)	0.301*** (0.000)	0.305*** (0.000)
Partisan Dummy	-2.800*** (0.000)	2.264 (0.296)	1.935 (0.378)	-0.117 (0.645)	4.733*** (0.000)	4.865*** (0.000)
County Inequality in 1890 * Partisan Dummy	0.898 (0.250)	0.915 (0.249)	1.181 (0.191)	0.276 (0.597)	0.257*** (0.000)	0.224*** (0.000)
<i>Semi-Elasticity of the Interaction Term for a St. Dev. Change in County Inequality</i>	6.57%	6.68%	8.56%	18.40%	15.93%	14.01%
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes
State Fixed Effects	Yes	--	--	Yes	--	--
Year Fixed Effects	Yes	--	--	Yes	--	--
2-digit Industry Fixed Effects	Yes	Yes	--	Yes	Yes	--
State*Year Fixed Effects	No	Yes	Yes	No	Yes	Yes
Industry*Year Fixed Effects	No	No	Yes	No	No	Yes
Number of Observations	8490	8445	8435	4297	4297	4297

# Economic Significance

- A standard deviation increase in county inequality leads to
  - A 20% increase in bank debt
  - A 50% increase in family financing
  - A 10-20% decline of venture capital and angel financing
- Results are stronger for States where judges are elected via partisan elections

Variable Name	Number of Observations	Mean	Standard Deviation	10%	Median (50%)	90%
<i>Dependent Variables</i>						
Enjoy Uncertainty	1,209	2.79	1.16	1	2	4
Working on Another Start-Up	623	0.20	0.40	0	0	1
Not Engaging in Product Innovation	2,294	2.38	0.71	1	3	3
Many Other Businesses Offer a Similar Product	2,296	1.81	0.70	1	2	3
Technological Start-Up	2,308	0.44	0.50	0	0	1
<i>Main Independent Variable</i>						
County Inequality in 1890	7,272	0.37	0.16	0.19	0.32	0.64
<i>Main Entrepreneurial Interaction Variables</i>						
Entrepreneur Takes an Opportunity	3,109	0.82	0.38	0	1	1
Entrepreneur's Expectation of Number Of Employees	2,886	18.13	581.80	0	0	7
Entrepreneur's Expectation of Total Revenue	2,673	5.54	50.33	0.03	0.30	3.00
Entrepreneur's Number of Hours Devoted to New Business	6,630	15.79	47.07	0.40	3	30
<i>Control Variables</i>						
<i>Entrepreneur Characteristics</i>						
Entrepreneur Is Male	7,272	0.63	0.48	0	1	1
Entrepreneur Is Head of Household	7,272	0.92	0.28	1	1	1
Entrepreneur Is Married	7,272	0.53	0.50	0	1	1
Entrepreneur Has a College Degree	7,272	0.38	0.48	0	0	1
Entrepreneur's Age	7,176	41.47	12.88	25	40	55
Entrepreneur Has a Network	7,272	0.67	0.47	0	1	1
Entrepreneur Is Black	7,272	0.12	0.33	0	0	1
Entrepreneur's Self Assessed Skills	7,272	0.97	0.18	1	1	1
Entrepreneur's Parents Ran Their Own Business	7,242	0.52	0.50	0	1	1
<i>State and County Characteristics</i>						
County Population	7,272	860,313	1,701,000	25,855	259,650	2,009,000
County Catholic to Protestant Ratio	7,254	3.91	6.00	0.11	1.71	11.27
County Land Area	7,272	1,606	2,421	323	798	4,526
County Votes for Democrats to Total Votes Ratio	7,272	0.47	0.13	0.31	0.46	0.64
County Personal Income per Capita	7,272	33,981	9,697	24,051	32,502	45,759
County Nonfarm Establishments per Capita	7,272	0.03	0.01	0.02	0.03	0.03
County Whites to Total Population Ratio	7,272	0.82	0.14	0.64	0.85	0.96
County Federal Government Expenditures per Capita	7,272	7.37	4.76	4.17	6.45	11.07

# Predictions

- Greater wealth inequality makes young entrepreneurs, *ceteris paribus*, enjoy uncertainty *less*.
- The probability that young entrepreneurs are working on another start-up following a recorded previous attempt will *decrease* in county inequality.

	Model	(1)	(2)	(3)	(4)
<i>Dependent Variable</i>		<i>Enjoy Uncertainty</i>		<i>Working on Another Start-Up</i>	
County Inequality in 1890	-0.638*	-0.619*	-1.889**	-2.765***	
	(0.401)	(0.393)	(0.782)	(1.044)	
Entrepreneur Is Male	0.366***	0.356***	-0.261	-0.505*	
	(0.101)	(0.098)	(0.214)	(0.269)	
Entrepreneur Is Head of Household	0.04	0.061	0.395	0.807*	
	(0.138)	(0.140)	(0.280)	(0.420)	
Entrepreneur Is Married	-0.088	-0.098	-0.507***	-0.881***	
	(0.088)	(0.095)	(0.167)	(0.301)	
Entrepreneur Has a College Degree	-0.125*	-0.114	0.154	0.098	
	(0.075)	(0.074)	(0.172)	(0.226)	
Entrepreneur's Age	0.071	0.079	-0.508*	-0.674*	
	(0.100)	(0.101)	(0.262)	(0.381)	
Entrepreneur Has a Network	0.088	0.097	0.422***	0.929***	
	(0.085)	(0.085)	(0.154)	(0.327)	
Entrepreneur Is Black	-0.159	-0.157	0.150	0.048	
	(0.130)	(0.128)	(0.254)	(0.460)	
Entrepreneur's Self Assessed Skills	0.093	0.092	0.814**	0.689*	
	(0.251)	(0.246)	(0.320)	(0.418)	
Entrepreneur's Parents Ran Their Own Business	-0.053	-0.062	-0.143	-0.281	
County Controls	Yes	Yes	Yes	Yes	
State Fixed Effects	Yes (48)	Yes (48)	Yes (35)	No	
Year Fixed Effects	No	No	Yes (5)	Yes (5)	
1-digit Industry Fixed Effects	Yes (8)	No	No	No	
2-digit Industry Fixed Effects	No	Yes (22)	Yes (17)	Yes (17)	
State*Year Fixed Effects	No	No	No	Yes (68)	
2-digit Industry*Year Fixed Effects	No	No	No	No	
Number of Observations	1,185	1,185	533	346	
<i>Semi-Elasticity for a St. Dev. Change in County Inequality</i>	-8.21%	-7.97%	-39.30%	-57.20%	

# Interaction Effects

Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent Variable	Not Engaging in Product Innovation				Technological Start-Up			
<b>Panel A: Entrepreneur Takes an Opportunity</b>								
County Inequality in 1890	-0.349 (0.264)	-0.293 (0.253)	-0.342 (0.266)	-0.469 (0.303)	0.111 (0.272)	0.034 (0.231)	0.090 (0.228)	0.039 (0.278)
Entrepreneur Takes an Opportunity	-0.207 (0.120)	-0.199 (0.110)	-0.191 (0.126)	-0.251* (0.112)	0.031 (0.102)	0.024 (0.091)	0.031 (0.090)	0.026 (0.105)
Entrepreneur Takes an Opportunity * County Inequality 1890	0.476* (0.261)	0.464* (0.244)	0.463* (0.250)	0.737** (0.302)	-0.115 (0.261)	-0.112 (0.213)	-0.184 (0.209)	-0.157 (0.239)
<i>Semi-Elasticity of the Interaction Term for a St. Dev. Change in County Inequality and</i>								
Entrepreneur Takes an Opportunity = 0	-7.83%	-6.58%	-7.67%	-10.52%	3.58%	1.10%	2.90%	1.26%
Entrepreneur Takes an Opportunity = 1	2.85%	3.84%	2.72%	6.01%	-0.13%	-2.52%	-3.03%	-3.81%

## Panel B: Entrepreneur's Expectation of Number of Employees

County Inequality in 1890	0.170 (0.221)	0.179 (0.224)	0.118 (0.221)	0.116 (0.203)	-0.016 (0.166)	-0.066 (0.145)	-0.074 (0.149)	-0.088 (0.161)
Entrepreneur's Expectation of Number of Employees	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	0.001** (0.000)	0.001** (0.000)	0.001** (0.000)	0.001*** (0.000)
Entrepreneur's Expectation of Number of Employees * County Inequality 1890	0.002*** (0.000)	0.002*** (0.000)	0.002*** (0.001)	0.002*** (0.001)	-0.001** (0.000)	-0.001** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)
<i>Semi-Elasticity of the Interaction Term for a St. Dev. Change in County Inequality and</i>								
Entrepreneur's Expectation Of Number Of Employees = Mean - One Standard Deviation	-21.48%	-21.28%	-22.65%	-22.69%	17.67%	16.05%	15.80%	15.34%
Entrepreneur's Expectation Of Number Of Employees = Mean + One Standard Deviation	30.74%	30.94%	29.57%	29.53%	-19.87%	-21.48%	-21.74%	-22.19%

## Panel C: Entrepreneur's Expectation of Total Revenue

County Inequality in 1890	0.076 (0.215)	0.101 (0.215)	0.076 (0.217)	0.130 (0.207)	-0.084 (0.169)	-0.135 (0.146)	-0.146 (0.147)	-0.146 (0.154)
Entrepreneur's Expectation of Total Revenue	-0.004* (0.002)	-0.004* (0.002)	-0.004* (0.002)	-0.004* (0.002)	0.003*** (0.001)	0.002*** (0.001)	0.002** (0.001)	0.002** (0.001)
Entrepreneur's Expectation of Total Revenue * County Inequality 1890	0.006* (0.003)	0.006* (0.003)	0.006* (0.003)	0.007* (0.004)	-0.004*** (0.001)	-0.003*** (0.001)	-0.003** (0.001)	-0.003** (0.001)
<i>Semi-Elasticity of the Interaction Term for a St. Dev. Change in County Inequality and</i>								
Entrepreneur's Expectation Of Total Revenue = Mean - One Standard Deviation	-4.33%	-3.76%	-4.33%	-4.12%	3.07%	-0.02%	-0.38%	-0.38%
Entrepreneur's Expectation Of Total Revenue = Mean + One Standard Deviation	9.23%	9.79%	9.23%	10.44%	-9.92%	-9.76%	-10.12%	-10.12%

Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State Fixed Effects	Yes	Yes	No	--	Yes	Yes	No	--
Year Fixed Effects	Yes	Yes	No	No	Yes	Yes	No	No
1-digit Industry Fixed Effects	Yes	No	No	No	Yes	No	No	No
2-digit Industry Fixed Effects	No	Yes	Yes	--	No	Yes	Yes	--
State*Year Fixed Effects	No	No	Yes	Yes (140)	No	No	Yes	Yes (116)
2-digit Industry*Year Fixed Effects	No	No	No	Yes (138)	No	No	No	Yes (20)
Number of Observations	1,737	1,737	1,737	1,175	1,749	1,749	1,749	1,186

# Exploring the Mechanism: First Degree Civil Sentences

- Obtained Data from Westlaw - US
- Only cases that were appealed
  - Selection bias
    - Cases that are most controversial or new
    - Parties that have more financial resources to undertake a lawsuit
    - More litigious parties
    - Second degree cases are judged by courts located in the State capital
- The Second Degree Cases have data on their First Degrees...

# Exploring the Mechanism: First Degree Civil Sentences

- We look at the first degree judgments
- Search for keywords “Bank”, “Corporation”, “Partner” among the parties involved in the trial
- Check the probability that a bank wins a first degree case against a business and relate it to wealth inequality



## H

Supreme Court of Nebraska.  
 BSB CONSTRUCTION, INC., a Nebraska corporation, appellee and cross-appellant,  
 v.  
 PINNACLE BANK, a Nebraska corporation, appellant and cross-appellee.

No. S-09-018.  
 Dec. 4, 2009.


**Background:** Road contractor brought action against bank, alleging bank improperly transferred money out of escrow account established to pay contractor. The District Court, Lancaster County, [Paul D. Merritt, Jr., J.](#), granted contractor partial summary judgment, and, after a bench trial, entered judgment for contractor. Bank appealed, and contractor cross-appealed.

**Holdings:** The Supreme Court, Miller-Lerman, J., held that:

- (1) bank account established by developer to pay road contractor was an escrow account;
- (2) bank was liable for loss suffered by contractor as a result of bank's violation of the terms of the account when it allowed developer to transfer money to another account;
- (3) contractor did not waive terms of escrow account;
- (4) evidence was sufficient to support trial court's award of damages to contractor for the delivery and placement of riprap;
- (5) demand letter from contractor failed to meet test of certainty required for a payment order, as required in order for contractor to be entitled to attorney fees under the Uniform Commercial Code (UCC); and
- (6) contractor was not entitled to prejudgment interest.

Affirmed.

West Headnotes

[1] Appeal and Error [30](#)  [842\(1\)](#)

30 Appeal and Error

30XVI Review


30XVI(A) Scope, Standards, and Extent, in General

30k838 Questions Considered

30k842 Review Dependent on Whether Questions Are of Law or of Fact

30k842(1) k. In general. [Most Cited Cases](#)

When reviewing questions of law, an appellate court has an obligation to resolve the questions independently of the conclusion reached by the trial court.

[2] Judgment [228](#)  [185\(6\)](#)

228 Judgment

228V On Motion or Summary Proceeding

228k182 Motion or Other Application

228k185 Evidence in General

228k185(6) k. Existence or non-existence of fact issue. [Most Cited Cases](#)

Summary judgment is proper when the pleadings and evidence admitted at the hearing disclose no

Supreme Court of Nebraska.

BSB CONSTRUCTION, INC., a Nebraska **corporation**, appellee and cross-appellant,

v.

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- (5) demand letter from contractor failed to meet test of certainty required for a payment order, as required in order for contractor to be entitled to attorney fees under the Uniform Commercial Code (UCC); and
- (6) contractor was not entitled to prejudgment interest.

Affirmed.

## [6] Deposits and Escrows 122A ⚔11

### 122A Deposits and Escrows

#### 122AII Conditional Deposits or Escrows

122Ak11 k. Nature and requisites in general. [Most Cited Cases](#)

## Deposits and Escrows 122A ⚔17

### 122A Deposits and Escrows

#### 122AII Conditional Deposits or Escrows

122Ak17 k. Authority of depositary to deliver. [Most Cited Cases](#)

An “escrow” is a written instrument, which by its terms imports a legal duty that a deposit is to be kept by the depositary until the performance of a condition or the happening of a certain event and then to be delivered over to take effect.

## [7] Deposits and Escrows 122A ⚔11

### 122A Deposits and Escrows

#### 122AII Conditional Deposits or Escrows

122Ak11 k. Nature and requisites in general. [Most Cited Cases](#)

No precise form of words is necessary to create an escrow, and the term ‘escrow’ need not be used.

## [8] Deposits and Escrows 122A ⚔11

### 122A Deposits and Escrows

#### 122AII Conditional Deposits or Escrows

122Ak11 k. Nature and requisites in general. [Most Cited Cases](#)

Bank account established by developer was an “escrow” account, though it was not titled an “escrow,” where account was opened to pay road contractor, and addendum to account required bank to hold money deposited in the account until the receipt of a draw authorization form signed by specified persons, at which time the money could be transferred solely to road contractor.

# Prediction

- In *more unequal* counties (i.e. greater wealth inequality) from States where judges are elected with a partisan method, banks will be *more likely* to win a case

# Probability that a Bank wins a first degree judgment

	(1)	(2)	(3)	(4)
County Inequality	-0.105 (0.149)	-0.209 (0.136)	-0.210 (0.137)	-0.199 (0.135)
County Inequality*Partisan Dummy		0.747** (0.362)	0.746** (0.364)	0.692* (0.361)
Partisan Dummy* Bank is Plaintiff			0.008 (0.061)	
Partisan Dummy* Bank Located in the Same State as Trial				-0.123*** (0.040)
Bank is Plaintiff	0.044 (0.033)	0.043 (0.033)	0.041 (0.043)	0.044 (0.033)
Bank Located in the Same State as Trial	-0.042 (0.035)	-0.042 (0.035)	-0.042 (0.035)	-0.009 (0.035)
Number of West Headnotes	0.001 (0.022)	0.002 (0.022)	0.002 (0.022)	0.002 (0.022)
First Degree Summary Judgement	0.045 (0.050)	0.044 (0.050)	0.044 (0.050)	0.044 (0.050)
Affirmed in Appeal	0.020 (0.033)	0.020 (0.033)	0.020 (0.033)	0.018 (0.034)
Dissenting Judges in Appeal	-0.022 (0.057)	-0.020 (0.057)	-0.020 (0.057)	-0.021 (0.057)
More than Four Parties involved	-0.126** (0.047)	-0.126*** (0.047)	-0.126** (0.047)	-0.124*** (0.046)
County controls	Yes	Yes	Yes	Yes
Case Fixed Effect	Yes	Yes	Yes	Yes
State Fixed Effects	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Observations	1337	1337	1337	1337
R-squared	0.157	0.159	0.159	0.162

# Conclusions

- It appears that wealth inequality is related to corporate capital structure and entrepreneurial dynamism in a way that is predicted by theory
- Results are stronger for counties located in States that elect judges
- Moreover: Preliminary results suggest that greater wealth inequality increases banks' probability to win a first degree case in counties located in States that elect judges