Financial Inclusion Across the United States[1]

Motohiro Yogo[a] Andrew Whitten[b] Natalie Cox[c]

[a]Princeton University and NBER

[b]U.S. Department of the Treasury

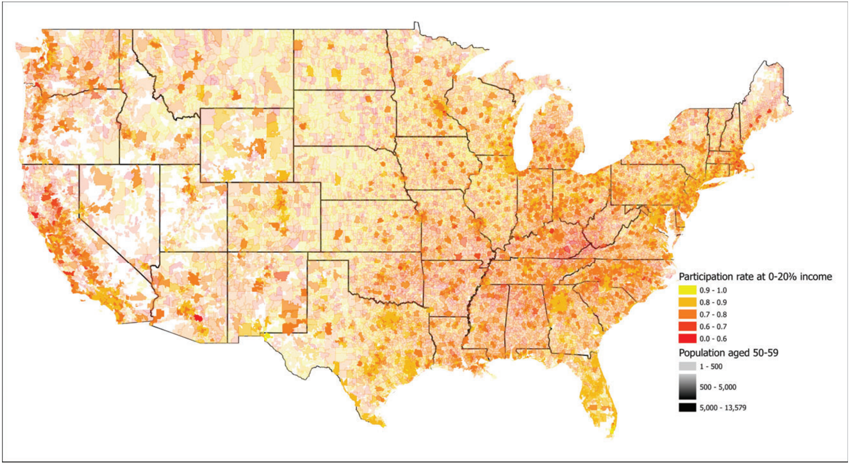
[c]Princeton University

[1]The views expressed are our own and are not necessarily those of the U.S. Department of the Treasury.

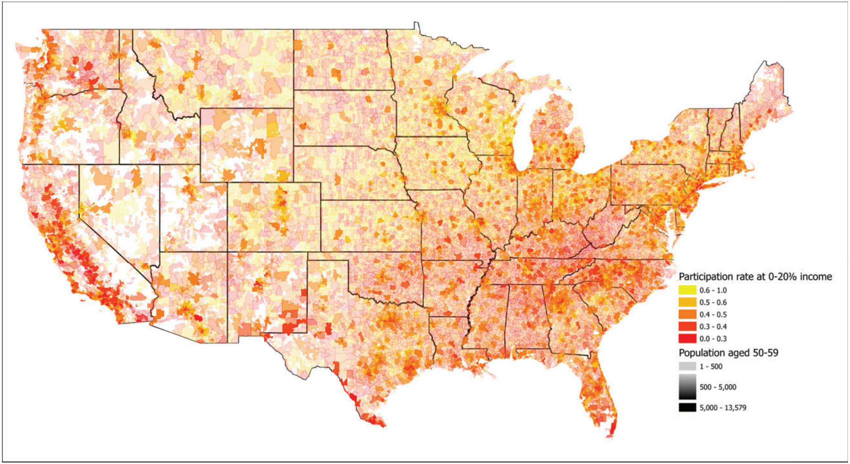
Understanding financial participation

- An inclusive society should strive for financial participation of all households, regardless of income or race.
- Household surveys have limitations including small samples, a limited panel dimension, and measurement error.
- Use administrative tax data to study bank and retirement account participation for all U.S. households aged 50–59 in 2008–2018.

Bank account participation at 0–20 percentile income



Retirement account participation at 0–20 percentile income



Questions

1. What explains the geographic variation in financial participation?
   - Income, race, or access to financial services?
2. How can we improve financial participation?
   - Ten states require that all employers offer a retirement plan or enroll workers in a state-sponsored retirement savings program.
   - Opportunities for financial service firms and fintech?

Administrative tax data

- Administrative tax data for 1999–2018.
  - Form 1040.
  - Information returns: W-2, 1099-INT, 1099-DIV, 1099-R, 1099-MISC, 1099-G, SSA-1099, 1099-B, and 5498.
- Entire U.S. population aged 50–59.
  - About 96% coverage relative to the census.
- Link households through joint tax filing and same address.
- Usual income: Mean household income over 5-year history.

Financial participation

- Bank account participation.
  - 1040: Refund or tax payment by electronic funds transfer.
  - 1099-INT: Interest income.
- Retirement account participation.
  - W-2: Participation in employer retirement plan.
  - 1099-R: Retirement distribution.
  - 5498: IRA contribution.
- Access to employer retirement plans.
  - Based on the universe of W-2 with the same EIN.
- Use 10-year history to measure participation, resulting in a sample period of 2008–2018.

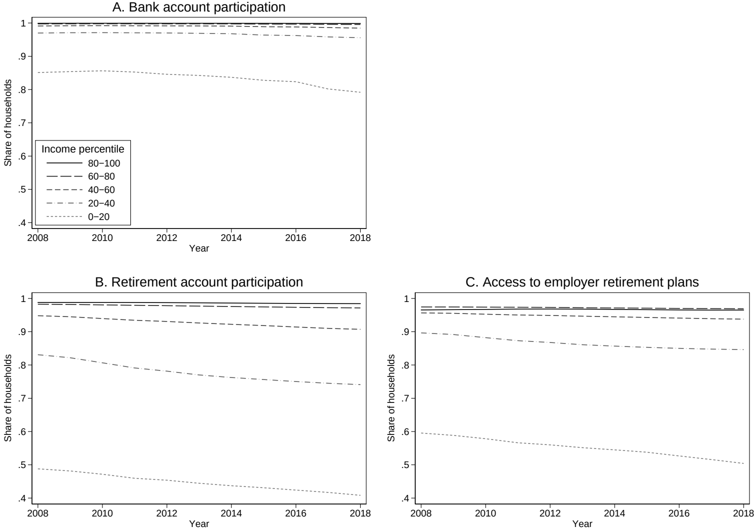
Comparing bank account participation

	Percentile of usual income					
Year	0–20	20–40	40–60	60–80	80–100	All
Panel A. SCF						
2010	0.80	0.95	0.98	1.00	1.00	0.94
2013	0.78	0.89	0.99	1.00	1.00	0.93
2016	0.76	0.93	0.98	0.99	1.00	0.93
Panel B. Administrative tax data						
2010	0.86	0.97	0.99	1.00	1.00	0.96
2013	0.84	0.97	0.99	1.00	1.00	0.96
2016	0.82	0.96	0.99	1.00	1.00	0.95

Comparing retirement account participation

	Percentile of usual income					
Year	0–20	20–40	40–60	60–80	80–100	All
Panel A. SCF						
2010	0.38	0.68	0.81	0.91	0.93	0.74
2013	0.31	0.63	0.85	0.89	0.95	0.72
2016	0.33	0.62	0.83	0.90	0.95	0.72
Panel B. Administrative tax data						
2010	0.47	0.81	0.94	0.98	0.99	0.84
2013	0.44	0.77	0.93	0.98	0.99	0.82
2016	0.42	0.75	0.91	0.97	0.99	0.81

Financial participation by income quintile



Geographic data

- ZIP Code Tabulation Area (ZCTA): Statistical areas developed by the Census Bureau.
- Map ZIP Codes on tax forms to ZCTAs.
- American Community Survey: Population and racial composition by ZCTA.
- FDIC: Bank branches by ZCTA.

Geographic determinants of financial participation

1. Racial composition.
2. Average income.
3. Access to financial services: Lack of banking services in low-income or nonwhite neighborhoods.

Geographic determinants of bank account participation

Regressor	(1)	(2)	(3)	(4)	(5)
Race:					
Hispanic	-0.04	-0.07	-0.07	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Black	-0.06	-0.07	-0.07	-0.01	-0.01
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Asian	0.04	0.00	0.00	0.01	0.02
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Other nonwhite	-0.09	-0.07	-0.08	-0.02	-0.02
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Bank branch density			0.00		
			(0.00)		
Average log income				0.02	0.02
				(0.00)	(0.00)
Log home value					0.00
					(0.00)
Constant	0.97	0.98	0.98	0.96	0.96
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Commuting zone fixed effects		Y	Y	Y	Y
R^2	0.27	0.48	0.48	0.73	0.73
Observations	350,156	350,156	350,156	350,156	341,100

Geographic determinants of retirement account participation

Regressor	(1)	(2)	(3)	(4)
Race:				
Hispanic	-0.31	-0.38	-0.14	-0.14
	(0.01)	(0.01)	(0.00)	(0.00)
Black	-0.19	-0.20	0.01	0.00
	(0.00)	(0.00)	(0.00)	(0.00)
Asian	-0.07	-0.18	-0.15	-0.12
	(0.02)	(0.02)	(0.01)	(0.01)
Other nonwhite	-0.14	-0.16	0.02	0.00
	(0.01)	(0.01)	(0.01)	(0.01)
Average log income			0.07	0.08
			(0.00)	(0.00)
Log home value				-0.03
				(0.00)
Constant	0.92	0.94	0.87	0.87
	(0.00)	(0.00)	(0.00)	(0.00)
Commuting zone fixed effects		Y	Y	Y
R^2	0.49	0.66	0.88	0.90
Observations	350,156	350,156	350,156	341,100

Interpreting income

- Financial participation across ZCTAs correlates with income rather than race or access to financial services.
- Direct effects of income.
  - Not enough income to save.
  - Banking fees on accounts with low balances.
  - Not sufficient tax incentives to open a retirement account.
- Other reasons for correlation with income.
  - Low financial literacy.
  - Peer effects boost financial participation in high-income neighborhoods.

Estimating the impact of employer retirement plans

- Regression: Retirement account participation on access to employer retirement plans.
- Access to employer retirement plans: Number of years with access over the last 10 years.
- Endogeneity: Workers with heterogeneous desire for retirement saving sort into employers based on access to retirement plans.

Instrumental variables

- Sample: Cross section of 50–59 year olds in 2018 and their W-2 in 1999 (at 31–40 years old).
  - Condition on sub-sample who did not have an employer retirement plan in 1999.
- IV: 2-digit NAICS sector of employer in 1999.
- Assumption: Workers do not choose their sector based on relative prevalence of employer retirement plans.
- Relevance:
  - Variation in prevalence of employer retirement plans across sectors.
  - First sector must be sufficiently predictive of eventual sector.

IV regression for retirement account participation

	Percentile of usual income				
Regressor	0–20	20–40	40–60	60–80	80–100
Access to employer plans	0.09	0.11	0.10	0.05	0.03
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Log income	-0.01	0.02	0.02	0.01	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Constant	0.14	0.14	0.29	0.60	0.76
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Observations	4,699,008	3,399,980	2,275,571	1,467,731	1,268,825

State mandates on employer retirement plans

- Increasing access to employer retirement plans could increase retirement account participation.
- Ten states require that all employers offer a retirement plan or enroll workers in a state-sponsored retirement savings program.
  - Default contribution of 3% or 5% from payroll.
- Policy intended to fill a gap in access to employer retirement plans, especially among small employers.
- What is the long-run impact of such policy on retirement account participation?

State-sponsored retirement savings programs

State	Program	Default contribution rate (%)	Employers with at least: Workers	Employers with at least: Years in business
California	CalSavers	5	5	
Colorado	Secure Savings	5	5	2
Connecticut	Secure Choice	3	5	
Illinois	Secure Choice	5	25	2
Maine	MaineSaves	5	25	
Maryland	MarylandSaves	5	1	2
New Jersey	Secure Choice	3	25	2
New York	Secure Choice	3	10	2
Oregon	OregonSaves	5	1	
Virginia	VirginiaSaves		25	2

Average treatment effects of employer retirement plans

Participation rate	Percentile of usual income				
conditional on	0–20	20–40	40–60	60–80	80–100
Observed access	0.41	0.74	0.91	0.97	0.98
Full access	0.58	0.87	0.96	0.99	0.99
Average treatment effect	0.17	0.12	0.05	0.01	0.01
Observations	6,739,251	6,739,251	6,739,252	6,739,249	6,739,250

- Observed access: Number of years with access over the last 10 years.
- Full access: Counterfactual if number of years with access is equal to number of working years.

Policy implications

- Tax incentives to encourage retirement savings.
  1. Employers can claim tax credits for setting up retirement plans.
  2. Workers can deduct retirement contributions, or low-income households can claim tax credits (Saver's Credit).
- Saver's Credit has limited impact on retirement contributions (Ramnath 2013).
- Mandates for employers to offer retirement plans may be more effective.

Conclusion

- Worrying trend of declining financial participation among low-income households.
  - Evidence of growing inequality.
- Improving access to employer retirement plans could be an effective policy.
- Interactive map identifies geographic areas with largest scope for improvement. [Bank — Retirement]
  - Opportunities for government and financial service firms?