Teachers Teaching Teachers: The Role of Workplace Peer Effects in Financial Decisions

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Background

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- households often appear to commit financial mistakes
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Implications:

- pro-cyclical rates lead to counter-cyclical savings
- financial crisis: HARP
- potential un-even impact of monetary policy

Suboptimal mortgage refinancing

Thought Process: what likely influences refi behavior?

- "Smart" refinancing requires acquiring interest rates/terms & estimating savings
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End Result: We study the exogenous arrival of otherwise costly information and its effect on household financial decision making

- specifically, the impact of an individual's employment network on her mortgage refinancing decision

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Candidates: teachers, postal workers, firefighters, police officers

Advantages of the setting

For studying household financial decisions:

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For studying peer effects:

1. employment records allow us to identify networks
2. teachers have little to no effect on campus assignment
3. inclusion in the employment records is not voluntary
4. can exploiting variation across (and within) campuses

Overcoming obstacles

TEA Records
Teacher ID
First Name
Last Name
Gender
DOB
Pay
Tenure
Ethnicity
Education
...

County Records
Transaction ID
Property ID
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Thought Process: often times face a trade-off between tight-identification and external validity

Texas public school employees

- granular administrative data
- possibly different than the average HH

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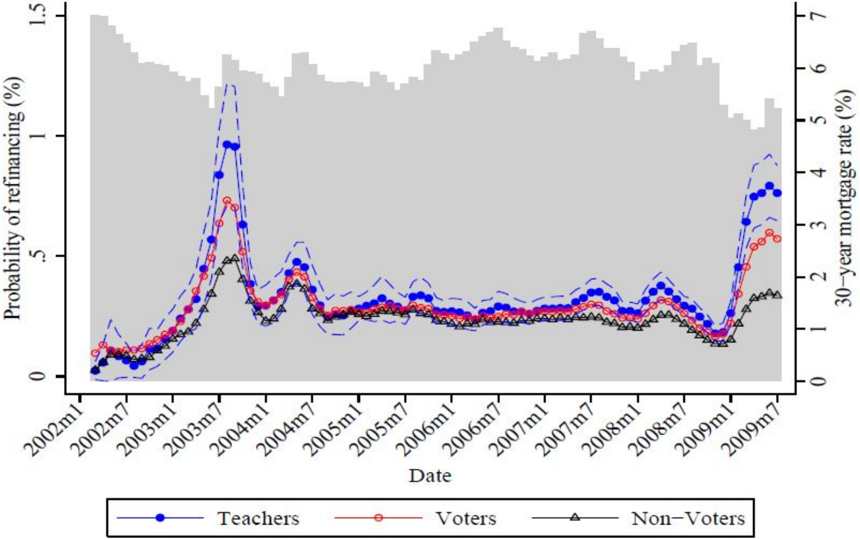
First Step: what does refi look like for our sample vs general population?

Representative HHs [2/2]



Confounding effects

Recurring question: peer effects or common shocks?

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Employment concerns leading to correlated refinancing decisions

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Potential variation in campus-level loan supply exposure

- example: a new billboard near a campus advertising a lender's superior mortgage terms

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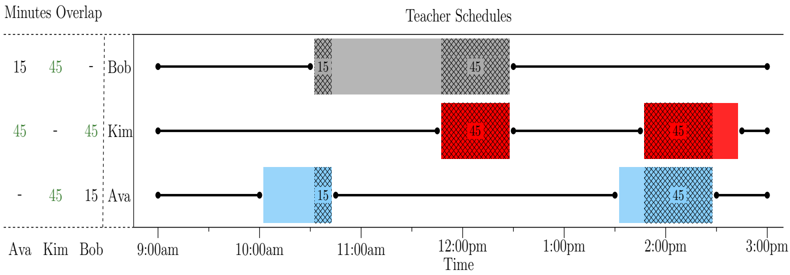
Teachers' schedules provide a source of within-campus variation

Off-periods classification



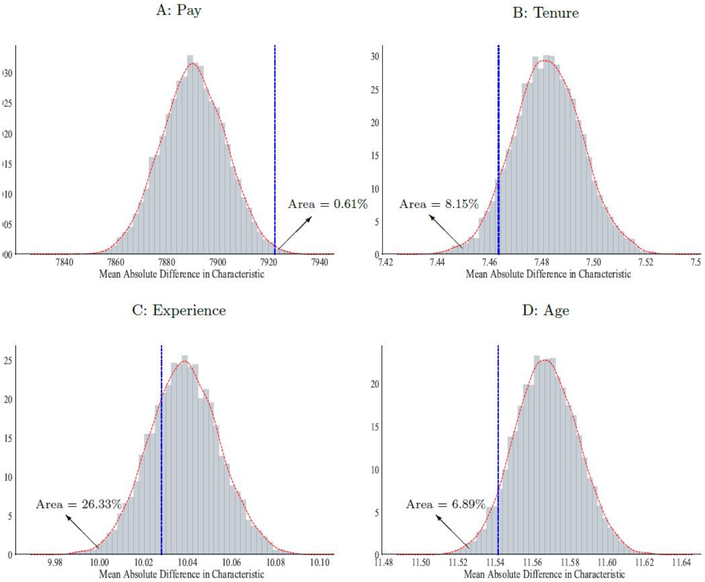
Measure of peer group

Off-Periods:

- teachers with common off-period more likely to interact & share information

Identifying Assumption: teachers do not have discretion over off-period assignment

Common characteristics [1/2]



Common characteristics [2/2]

marginal, economically small (dis-)commonality in characteristics

important to saturate model with controls for peer characteristics

- let each vary at the district-year level

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Thought Process: try to go one step further; teacher's picking off-periods

Peer effects matter

	(1)	(2)	(3)
Peer refinances	10.745***	19.070***	14.263***
	(4.85)	(5.95)	(5.10)
Savings (\$, $\times$10,000)	59.446***	71.256***	64.222***
	(6.76)	(5.37)	(6.35)
1(underwater)	-110.999***	-115.694***	-109.782***
	(-8.39)	(-7.04)	(-8.21)
Percentage underwater	-75.753	-306.654	-186.824
	(-0.52)	(-1.64)	(-1.16)
Loan age (months)	-4.715***	-5.852***	-5.025***
	(-8.79)	(-8.51)	(-8.68)
Teacher characteristics	Yes	Yes	Yes
Peer characteristics	Yes	District$\times$year	Yes
Teacher-peer commonalities	Yes	District$\times$year	Yes
Campus$\times$Month FEs	Yes	Yes	Yes
Time slot FEs	No	No	District$\times$year
N	358,404	358,404	356,495
R^2	0.201	0.251	0.221

Additional results (in the paper)

Previous results are even stronger when:

1. *Peer Refinances* is constructed from previous 2-month period
2. tossing Summer months
3. peers share common ethnicity

Consistent results when instrumenting for peer refi activity using potential savings

Refi teachers are more likely to choose a peer's lender

Separating information from mimicking

We frame the previous results as information transmission

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Refi behavior provides a nice setting to differentiate between the two:

- information of potential rates/savings isn't enough to push me to refi (rationally)
- I also need to benefit from the action

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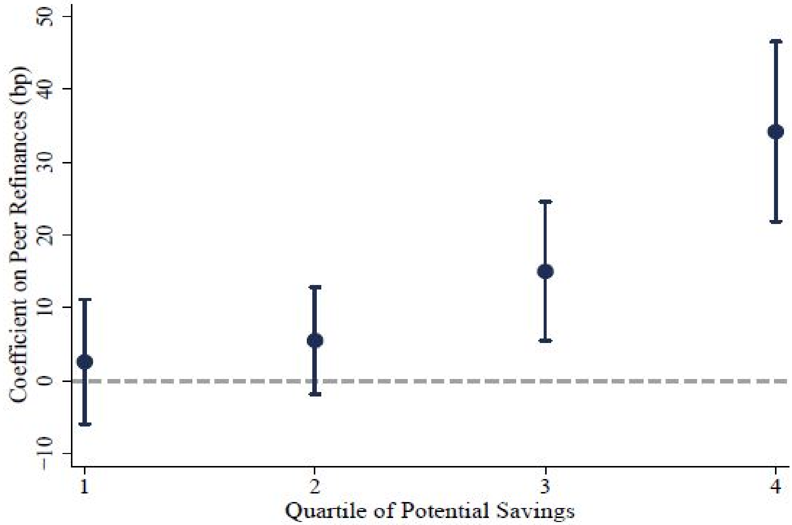
Approach: break out sample into *potential* savings conditional on refi

Potential benefits



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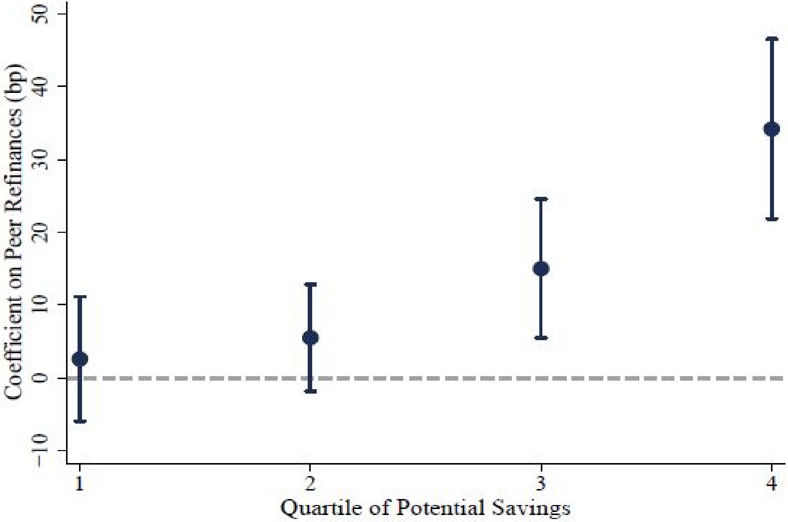

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Overall:

- one sigma increase in refi activity by peers increases his/her likelihood of refinancing by 20.7%
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- stronger effect when potential savings are larger
- peers also affect the choice of lender

Results strongly support peer effects being an important determinant of refi behavior

- consistent with informational frictions playing an important role in suboptimal refinancing

Let's enjoy some wine!