

Teachers Teaching Teachers: The Role of Networks on Financial Decisions

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Internet Appendix

Additional Tables and Figures

Table IA.I
Property characteristics of sample teachers and Texas homeowners

This table shows average property characteristics for the teachers in our sample and the sample of Texas homeowners.

	Sample teachers	Texas homeowners	Difference	<i>t</i> -statistic
Assessor values (\$)	168,439	184,663	-16,224	-11.26
Square footage	2,150.8	2,120.5	30.35	0.38
Number of bedrooms	3.364	3.289	0.074	9.97
Number of bathrooms	2.371	2.309	0.062	7.74

Table IA.II
Multi-step estimation using lower-order fixed effects

This table shows estimates similar to the ones in Table II, using lower-order fixed effects instead of campus-month fixed effects in the first stage. Panel A reports the results of the first stage (t -statistics in parentheses). Panel B reports the results of the residual distance regressions and their corresponding distance ratios. Reported p -values in parentheses are estimated by generating the distribution of each coefficient under the null of no peer effects, following Shue (2013). *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Panel A: First stage						
	(1)		(2)		(3)	
	1st		1st		1st	
	Stage		Stage		Stage	
Savings (\$, $\times 10,000$)	57.378*** (5.02)		58.466*** (4.89)		65.693*** (5.13)	
1(Underwater)	-9.000 (-1.22)		-10.196 (-1.24)		-9.064 (-1.01)	
Percent Underwater	-47.295 (-0.61)		-35.191 (-0.34)		-19.648 (-0.17)	
Constant	42.101*** (8.94)		60.834*** (8.84)		38.110*** (6.94)	
MSA-Year FE	Y		N		N	
District-Year FE	N		Y		N	
Campus-Year FE	N		N		Y	
N	313,583		313,583		313,583	
R^2	0.026		0.034		0.056	
Panel B: Residual distance and distance ratio						
	(1)		(2)		(3)	
	Residual	Distance	Residual	Distance	Residual	Distance
	Dist.	Ratio	Dist.	Ratio	Dist.	Ratio
1(Common Off-Period)	-4.138** (0.0318)		-3.967** (0.0332)		-4.889** (0.0326)	
Constant	235.115*** (< 0.0001)		237.443*** (< 0.0001)		243.324*** (< 0.0001)	
Distance Ratio		0.0176** (0.0318)		0.0167** (0.0332)		0.0201** (0.0326)

Table IA.III
Correlation Matrix of Teacher Characteristics

This table shows the correlation coefficients among teacher characteristics.

	Pay	Tenure	Grad Degree	Age	Female
Pay	1				
Tenure	0.52	1			
Grad Degree	0.29	0.17	1		
Age	0.47	0.48	0.24	1	
Female	-0.16	0.04	-0.02	-0.0001	1

Table IA.IV
Robustness for Table III

This table shows OLS regressions in which the dependent variable is a 0/1 indicator of refinances, and the main variable of interest is *Peer Refinances*, a variable that captures the number of peers having undertaken a mortgage refinance in the previous 3-month period, scaled by the size of the peer group. In Panel A, the main difference with Table III is the definition of *Peer Refinances*, which only considers refinances done by peers in the last two months (instead of three months). Panel B, in turn, uses an alternative measure of savings which assumes a term of 30 years. Reported are the effects of a one standard deviation change in *Peer Refinances*, and *t*-statistics in parentheses are heteroscedasticity-robust and clustered by MSA-year. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Panel A: Alternative measure of Peer Refinances					
	(1)	(2)	(3)	(4)	(5)
Peer Refinances	11.854*** (5.55)	10.851*** (5.08)	9.492*** (3.97)	6.554** (2.05)	6.618** (2.08)
Savings (\$, $\times 10,000$)	48.903*** (6.46)	49.243*** (6.46)	53.010*** (6.74)	56.310*** (5.45)	56.307*** (5.45)
1(Underwater)	-7.638 (-1.10)	-9.089 (-1.16)	-7.887 (-0.93)	-5.400 (-0.57)	-4.712 (-0.50)
Percent Underwater	-10.605 (-0.13)	5.204 (0.05)	14.607 (0.12)	-33.544 (-0.24)	-58.994 (-0.42)
Teacher Characteristics	N	N	N	N	Y
MSA-Year FE	Y	N	N	N	N
District-Year FE	N	Y	N	N	N
Campus-Year FE	N	N	Y	N	N
Campus-Month FE	N	N	N	Y	Y
<i>N</i>	303,467	303,467	303,467	303,467	303,467
<i>R</i> ²	0.024	0.032	0.055	0.242	0.242
Panel B: Alternative measure of Savings					
	(1)	(2)	(3)	(4)	(5)
Peer Refinances	11.075*** (4.81)	10.153*** (4.39)	9.164*** (3.62)	6.281* (1.93)	6.343* (1.96)
Savings (\$, $\times 10,000$)	44.621*** (6.66)	45.032*** (6.70)	48.668*** (7.00)	54.139*** (5.41)	54.126*** (5.40)
1(Underwater)	-9.967 (-1.45)	-11.383 (-1.46)	-10.167 (-1.21)	-8.621 (-0.93)	-7.888 (-0.85)
Percent Underwater	-18.839 (-0.23)	-7.812 (-0.07)	-3.728 (-0.03)	-47.085 (-0.33)	-72.377 (-0.51)
Teacher Characteristics	N	N	N	N	Y
MSA-Year FE	Y	N	N	N	N
District-Year FE	N	Y	N	N	N
Campus-Year FE	N	N	Y	N	N
Campus-Month FE	N	N	N	Y	Y
<i>N</i>	303,467	303,467	303,467	303,467	303,467
<i>R</i> ²	0.024	0.032	0.055	0.242	0.242

Table IA.V
Teacher Characteristics and Group Characteristics

This table shows OLS regressions of a teacher's characteristic on the average of her peer group (*Peer Group Average*) and the average of all teachers within the campus but outside the teacher's peer group (*Campus Average*), using all teachers in the TEA records. Reported *t*-statistics in parentheses are heteroscedasticity-robust and clustered by campus. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

	Employment Characteristics			Demographics				
	Age (1)	Pay (2)	Grad Degree (3)	Female (4)	White (5)	Black (6)	Asian (7)	Hispanic (8)
Peer Group Average	0.030*** (3.31)	0.042*** (3.95)	0.006 (0.66)	0.075*** (8.10)	0.026** (2.36)	0.009 (0.63)	-0.001 (-0.11)	0.011 (0.87)
Campus Average	0.424*** (26.35)	0.830*** (86.22)	0.407*** (20.64)	0.469*** (30.65)	0.863*** (71.43)	0.891*** (56.50)	0.139*** (4.19)	0.878*** (57.23)
<i>N</i>	187,369	187,369	187,369	187,369	187,369	187,369	187,369	187,369
<i>R</i> ²	0.024	0.254	0.017	0.038	0.287	0.286	0.001	0.303

Table IA.VI
Alternative Refinements of Peer Groups

This table shows OLS regressions in which the dependent variable is a 0/1 indicator of refinances, and the main variable of interest is *Peer Refinances*, a variable that captures the number of peers having undertaken a mortgage refinance in the previous 3-month period, scaled by the size of the peer group. The main difference with Table VI is the segmentation of *Peer Refinances* into two mutually exclusive groups. The first group contains peers with the same characteristic as the individual, while the second group contains peers who differ in the characteristic. In Panel A, peers are defined as belonging in the same age group if the absolute difference in ages is less than 10 years. Panel B, in turn, segments the peer group based on having the same gender as the individual. Reported are the effects of a one standard deviation change in *Peer Refinances*, and *t*-statistics in parentheses are heteroscedasticity-robust and clustered by MSA-year. ****p*<0.01, ***p*<0.05, **p*<0.1.

Panel A: Common Age					
	(1)	(2)	(3)	(4)	(5)
Peer Refinances	7.245***	6.336***	4.987**	3.779	3.842
common age group	(3.75)	(3.32)	(2.39)	(1.41)	(1.42)
Peer Refinances	9.251***	8.940***	8.983***	6.132	6.202
different age group	(4.93)	(4.58)	(4.05)	(1.57)	(1.59)
Savings (\$, ×10,000)	49.060***	49.470***	53.023***	55.955***	55.912***
	(6.47)	(6.48)	(6.67)	(5.41)	(5.41)
1(Underwater)	-7.799	-9.174	-8.613	-5.382	-4.734
	(-1.09)	(-1.15)	(-1.01)	(-0.54)	(-0.47)
Percent Underwater	-36.040	-25.252	7.299	-54.718	-81.225
	(-0.42)	(-0.22)	(0.06)	(-0.36)	(-0.53)
Teacher Characteristics	N	N	N	N	Y
MSA-Year FE	Y	N	N	N	N
District-Year FE	N	Y	N	N	N
Campus-Year FE	N	N	Y	N	N
Campus-Month FE	N	N	N	Y	Y
<i>N</i>	298,397	298,397	298,397	298,397	298,397
<i>R</i> ²	0.024	0.033	0.056	0.242	0.242
Panel B: Common Gender					
	(1)	(2)	(3)	(4)	(5)
Peer Refinances	8.508***	7.939***	6.515***	4.487	4.562
common gender	(4.33)	(3.87)	(2.77)	(1.37)	(1.40)
Peer Refinances	9.737***	8.743***	9.141***	6.964	7.041
different gender	(3.44)	(3.06)	(3.01)	(1.60)	(1.60)
Savings (\$, ×10,000)	49.065***	49.475***	53.030***	55.958***	55.910***
	(6.48)	(6.48)	(6.67)	(5.42)	(5.41)
1(Underwater)	-7.788	-9.162	-8.577	-5.358	-4.714
	(-1.09)	(-1.15)	(-1.01)	(-0.53)	(-0.47)
Percent Underwater	-36.140	-25.328	6.800	-55.000	-81.479
	(-0.42)	(-0.22)	(0.05)	(-0.36)	(-0.53)
Teacher Characteristics	N	N	N	N	Y
MSA-Year FE	Y	N	N	N	N
District-Year FE	N	Y	N	N	N
Campus-Year FE	N	N	Y	N	N
Campus-Month FE	N	N	N	Y	Y
<i>N</i>	298,397	298,397	298,397	298,397	298,397
<i>R</i> ²	0.024	0.033	0.056	0.242	0.242

Table IA.VII
First Stage Regressions

This table reports the first stage of the 2SLS IV regressions of Table VII. The dependent variable, *Peer Refinances*, instrumented for in the second stage, is the number of a teacher's peers who have undertaken a mortgage refinance in the previous 3-month period, scaled by the size of the teacher's peer group. We use the average net savings conditional on refinancing of a teacher's peer group, *Avg. Peer Savings*, as an exogenous instrument to estimate *Peer Refinances*. The variables *Avg. Peer Savings* and *Peer Refinances* have been standardized. Reported *t*-statistics in parentheses are heteroscedasticity-robust and clustered by MSA-year. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

	(1)	(2)	(3)	(4)
Avg. Peer Savings	0.385*** (4.90)	0.381*** (4.86)	0.400*** (4.80)	0.401*** (4.82)
Savings (\$, $\times 10,000$)	-0.074*** (-2.82)	-0.070** (-2.60)	-0.034 (-0.90)	-0.027 (-0.71)
1(Underwater)	-0.044 (-0.64)	-0.057 (-0.83)	-0.071 (-1.16)	-0.054 (-0.87)
Percent Underwater	-0.490 (-0.50)	-0.016 (-0.02)	-0.114 (-0.14)	-0.071 (-0.09)
Teacher Characteristics	N	N	N	Y
MSA-Year FE	Y	N	N	N
District-Year FE	N	Y	N	N
Campus-Year FE	N	N	Y	Y
<i>N</i>	245,201	245,201	245,201	245,201
<i>R</i> ²	0.032	0.080	0.211	0.211

Table IA.VIII
First Mover and Follower Characteristics

This table compares the characteristics of teachers that refinance independently of their peers with those of teachers who follow their peers.

	Trigger	Follower	Difference	<i>t</i> -statistic
Unpaid Balance (\$)	138,700.9	138,190.5	510.4	0.13
Savings (\$)	6,087.8	6,600.1	-512.3	-1.07
Pay (\$)	47,807.3	46,954.8	852.5	2.08
Tenure	6.17	6.33	-0.167	-0.48
Technical Class	0.26	0.27	-0.001	-0.06
Grad Degree	0.27	0.26	0.008	0.37
Age	41.64	41.33	0.307	0.61
Female	0.67	0.63	0.041	1.72