sociological science

Supplement to:

McCabe, Brian J. 2018. "The Social Life of Mortgage Delinquency and Default." Sociological Science 5: 489-512.

Online Appendix:

In Table A.1, I report descriptive statistics from the National Housing Survey. These statistics are first reported for the full sample of respondents (column 1) and then disaggregated by homeownership status (columns 2 and 3).

In Table A.2, I reproduce the baseline regression analyses for each of the five outcomes in the body of the paper (Table 2, columns 1 and 4; Table 3, columns 1 and 4; Table 5, column 1). These tables include the full set of coefficients included in the model so readers can evaluate other covariates in the analysis.

In Table A.3, I estimate an additional set of regression models accounting for neighborhood characteristics. Since the National Housing Survey includes the zip code for each respondent in the survey, I rely on neighborhood characteristics reported at the zip code level. First, I include a measure of the neighborhood homeownership rate from the 2010 Census and the median household income from the 2011 American Community Survey 5-year estimates. I was able to successfully match 91.6 percent of respondents from the National Housing Survey with these data. Next, I match respondents from the National Housing Survey with the data. Next, I match respondents from the National Housing Survey with neighborhood-level measures from Zillow that identify the median estimated home value and the percent of homes that decreased in value in the previous year. The coverage of these data is substantially more limited, enabling me to match only 22,268 respondents (76.56 percent) with the price data and 19,257 respondents (66.21 percent) with the data reporting declining property values.

For each outcome, I first run a model controlling for the median neighborhood income and homeownership rate. Then, I run a second model adding in the housing market data from Zillow. These models include the full set of covariates reported in Table A.2, although I only report the coefficients for network exposure to mortgage default and the zip code-level covariates in Table A.3.

The findings from the main analysis are robust to the inclusion of each of these measures. Households living in neighborhoods with a higher share of homes declining in value are less optimistic about the housing market (Table A.3, columns 2 and 4). Respondents living in neighborhoods with high rates of homeownership are generally less permissive of the strategic default decisions of struggling homeowners (Table A.3, columns 5-8). The neighborhood homeownership rate is positively correlated with expectations about buying a home in the future (Table A.3, columns 9-10), but negatively associated with expectations about the direction of housing prices (Table A.3, columns 3-4). Notably, the main findings about exposure to mortgage default reported throughout the paper are robust to the inclusion of these zip code-level covariates.

Table A.1: Descriptive Statistics, by Homeownership Status

	Total	Renter	Homeowner
Default: Do not know anyone	0.585	0.634	0.565
Default: Distant Connection	0.294	0.243	0.315
Default: Recent Connection	0.121	0.123	0.120
Lives in Urban Area	0.329	0.485	0.266
Female	0.539	0.560	0.530
Education: Less than High School	0.0718	0.119	0.0524
Education: High School	0.217	0.273	0.195
Education: Some College	0.250	0.290	0.234
Education: College or Beyond	0.461	0.318	0.519
Immigrant	0.129	0.159	0.117
Age: 18-29	0.129	0.301	0.0591
Age: 30-44	0.298	0.313	0.292
Age: 45-59	0.302	0.233	0.330
Age: 60+	0.271	0.153	0.319
Race: White	0.653	0.506	0.713
Race: Black	0.128	0.203	0.0977
Race: Hispanic	0.137	0.198	0.112
Race: Other	0.0816	0.0929	0.0769
Income: 0 to 25K	0.251	0.475	0.155
Income: 25K to 50K	0.242	0.285	0.224
Income: 50K to 75K	0.183	0.124	0.208
Income: 75K to 150K	0.246	0.0943	0.312
Income: 150K or More	0.0778	0.0215	0.102

Children < 18	0.411	0.421	0.407
Homeowner	0.710		
Current Home Value: Increase 20% or more			0.443
Current Home Value: Increase 5% - 20%			0.196
Current Home Value: About the same			0.173
Current Home Value: Decrease 5% - 20%			0.103
Current Home Value: Decrease 20% of more			0.0842
Mortgage Modification			0.0603
Sample Size	29,084	8,429	20,655

Note: Descriptive statistics are reported for the full sample of respondents. For variables with missing values, the statistics are reported for the set of cases with nonmissing values. The measure of homeownership includes respondents who own their homes outright and those who hold a mortgage on their homes. The variable for mortgage modification is reported only for homeowners with a mortgage.

Table A.2: Odds Ratio from Logistic Regression on the Full Sample of Respondents

	Good Time to Sell	Prices Will Go Up	Default: Underwater	Default: Financial Distress	Likely to Buy	
Default: Distant Connection	0.736^{*}	1.003	1.132+	1.227*	1.066	
	(0.00)	(0.95)	(0.05)	(0.00)	(0.17)	
Default: Recent Connection	0.628^{*}	0.881^{+}	1.644*	1.612*	0.996	
	(0.00)	(0.02)	(0.00)	(0.00)	(0.95)	
Lives in Urban Area	1.207^{*}	1.158*	1.262*	1.107+	0.888^{*}	
	(0.00)	(0.00)	(0.00)	(0.02)	(0.01)	
Female	1.035	0.940	0.686^{*}	0.828^{*}	0.851^{*}	
	(0.45)	(0.07)	(0.00)	(0.00)	(0.00)	
Education: High School	1.011	0.884	0.995	0.961	1.099	
5	(0.90)	(0.08)	(0.96)	(0.62)	(0.23)	
Education: Some College	0.912	0.838^{+}	0.988	0.986	1.034	
	(0.34)	(0.01)	(0.90)	(0.86)	(0.67)	
Education: College or Beyond	0.864	0.886	1.198	1.090	1.140	
	(0.13)	(0.09)	(0.07)	(0.28)	(0.10)	
Immigrant	0.670^{*}	1.066	1.703^{*}	1.514*	1.080	
0	(0.00)	(0.29)	(0.00)	(0.00)	(0.29)	
Age: 30-44	0.949	0.848^{*}	0.771^{*}	1.144	1.654^{*}	
8	(0.48)	(0.00)	(0.00)	(0.06)	(0.00)	

Age: 45-59	0.939	0.909	0.945	1.204 [*]	1.478 [*]
	(0.40)	(0.11)	(0.52)	(0.01)	(0.00)
Age: 60 and Above	0.907	1.184 [*]	1.335 [*]	1.338 [*]	0.779^{*}
	(0.21)	(0.01)	(0.00)	(0.00)	(0.00)
Race: Black	2.096 [*]	1.348 [*]	1.086	1.031	1.031
	(0.00)	(0.00)	(0.31)	(0.62)	(0.61)
Race: Hispanic	1.314*	1.248 [*]	1.612*	1.113	1.246 [*]
	(0.00)	(0.00)	(0.00)	(0.13)	(0.00)
Race: Other	1.358*	1.317*	1.535*	1.334 [*]	0.739 [*]
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Income: 25K to 50K	0.939	0.860^{*}	0.761 [*]	0.919	1.515*
	(0.38)	(0.01)	(0.00)	(0.18)	(0.00)
Income: 50K to 75K	0.857	0.852 [*]	0.663 [*]	0.873	1.860^{*}
	(0.05)	(0.01)	(0.00)	(0.06)	(0.00)
Income: 75K to 150K	1.063	0.863 ⁺	0.645 [*]	1.006	2.607 [*]
	(0.45)	(0.02)	(0.00)	(0.93)	(0.00)
Income: 150K or More	1.238 ⁺	1.000	0.885	1.009	3.867 [*]
	(0.05)	(1.00)	(0.40)	(0.92)	(0.00)
Children < 18	0.934	0.924	0.884	0.862*	1.437 [*]
	(0.21)	(0.06)	(0.06)	(0.00)	(0.00)
Homeowner	0.915	0.881 [*]	0.744 [*]	0.857 [*]	5.095^{*}
	(0.11)	(0.00)	(0.00)	(0.00)	(0.00)
Constant	0.149 [*]	0.533 [*]	0.150 [*]	0.226 [*]	0.435 [*]
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Observations	28103	27941	27989	27630	27727
Pseudo R ²	0.071	0.051	0.051	0.018	0.186

Note: The models also account for the month in which the survey was fielded. The table reports the exponentiated coefficients with the standard errors in parentheses. * p < 0.05, * p < 0.01.

Table A.3: Odds Ratio from Logistic Regression, including Zip Code Covariates

	(1) Good Time to Sell	(2) Good Time to Sell	(3) Prices Will Go Up	(4) Prices Will Go Up	(5) Default: Underwater	(6) Default: Underwater	(7) Default: Financial Distress	(8) Default: Financial Distress	(9) Likely Buy	(10) Likely Buy
Default: Distant Connection	0.738"	0.755*	0.998	1.005	1.145 ⁺	1.144	1.241"	1.250*	1.051	1.053
	(0.00)	(0.00)	(0.97)	(0.91)	(0.04)	(0.07)	(0.00)	(0.00)	(0.30)	(0.36)
Default: Recent Connection	0.620"	0.669"	0.867 [*]	0.869 ⁺	1.662"	1.628 [*]	1.642"	1.639"	0.985	1.019
	(0.00)	(0.00)	(0.01)	(0.04)	(0.00)	(0.00)	(0.00)	(0.00)	(0.82)	(0.81)
Percent Homeowners	0.999	1.001	0.994 [*]	0.990"	0.993 [°]	0.992 [*]	0.992"	0.993 [*]	1.013"	1.012 [*]
	(0.54)	(0.60)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)
Median Neighborhood Income (\$1,000s)	1.003+	0.999	1.005"	1.007"	1.007"	1.008"	1.008"	1.005"	0.995"	0.996
	(0.01)	(0.52)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.05)
Median Estimated Home Value (\$10,000s)		1.006" (0.01)		0.997 (0.11)		0.999 (0.82)		1.003 (0.19)		1.001 (0.64)
Percent of Homes Declining in Value		0.990" (0.00)		0.995" (0.00)		0.996 ⁺ (0.02)		0.998 (0.13)		0.999 (0.45)
Constant	0.139"	0.282"	0.665"	0.929	0.164"	0.209"	0.258"	0.314"	0.237"	0.258"
	(0.00)	(0.00)	(0.01)	(0.72)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Observations	26374	18506	26222	18440	26286	18413	25943	18182	26048	18319
Pseudo R ²	0.071	0.086	0.055	0.067	0.054	0.059	0.022	0.024	0.190	0.192

Note: Each regression model includes the full set of demographic covariates reported online in Table A.1. The models also account for the month in which the survey was fielded. The table reports the exponentiated coefficients with the standard errors in parentheses.* p < 0.05, * p < 0.01.