Mortgage Experiences of Rural Borrowers in the United States: Insights from the National Survey of Mortgage Originations

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Abstract

To date, research on rural mortgage markets in the United States has been limited by a lack of data on the specific mortgage experiences of borrowers living in rural areas. To fill this data gap, the National Survey of Mortgage Originations (NSMO) conducted a survey that oversampled people who took out mortgages in completely rural counties in 2014. This article shows results from this survey, contrasting the characteristics, experiences, and loan terms of mortgage borrowers in completely rural counties to those of borrowers in metropolitan and other non-metropolitan areas. Completely rural counties are those with no urban cluster or an urban population less than 2,500. We find that borrowers in completely rural counties paid slightly higher interest rates on average and were less satisfied that their mortgage was the one with the best terms to fit their needs than borrowers in other areas. These results persist even after controlling for income, credit quality, and other borrower characteristics. Completely rural borrowers were less likely than other borrowers to be satisfied with the mortgage closing process, the timeliness of disclosures, and the disclosure documents themselves. Finally, compared with borrowers in more urban areas, borrowers in completely rural areas tend to be less confident or less knowledgeable about some details of mortgages, and they are more likely to initiate contact with their lender.

Introduction

There is a widespread belief that lenders and credit markets in rural areas of the United States differ from those in urban areas. The literature on "relationship lending" argues that lending in rural areas differs fundamentally from lending in other areas because rural lenders have greater personal knowledge about their borrowers and local economic conditions.[1] The literature on community banking shows that lenders in rural areas tend to have fewer assets and generally have smaller geographic markets than larger financial institutions (Critchfield et al., 2004). The smaller scale of lending in rural areas could potentially constrain the supply of mortgages, make mortgages more costly to originate, and could adversely affect mortgages taken out by borrowers.[2]

To some degree, federal housing and mortgage policies reflect the distinctive features and challenges of mortgage lending in rural areas. For example, the Housing and Economic Recovery Act of 2008 (HERA) assigned Fannie Mae and Freddie Mac a *Duty to Serve* (DTS) three underserved markets by increasing the liquidity of mortgage investments and improving the distribution of mortgage investment capital to those markets.[3] One of the underserved markets specifically mentioned is the rural market, and another is manufactured housing—which is much more prevalent in rural areas (CFPB, 2014). Similarly, the Consumer Financial Protection Bureau (CFPB) provided exceptions for loans made by small creditors that operate predominantly in rural or underserved areas in several of its mortgage rules.

This article explores the underlying premise of these government policies: that mortgage borrowers in rural areas are potentially "less well-served" than those in other areas. Such an article has been difficult to write in the past because of a lack of data.[4] There are few available data sets containing detailed information on the characteristics of borrowers and their mortgages that are both representative and contain enough borrowers in rural areas to make meaningful comparisons. For example, data reported under the Home Mortgage Disclosure Act (HMDA) provide data on millions of mortgages and thus include many rural loans, but HMDA exempts small lenders and lenders with branches exclusively outside metropolitan areas, making the coverage of rural loans incomplete and potentially unrepresentative.

To fill the need for data on mortgages and mortgage borrowers in rural areas, the Federal Housing Finance Agency (FHFA) and CFPB conducted a special supplemental survey of 1,000 mortgages as part of the National Survey of Mortgage Originations (NSMO) which is based on the National Mortgage Database (NMDB®).[5] The supplemental sample that is the cornerstone of this article covers mortgages originated at any time in 2014 in counties defined as "completely rural." This article uses data for 267 borrowers from the special sample of completely rural mortgages and 6,273 respondents to the regular NSMO survey who took out a mortgage in 2014.[6]

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[1] See, for example, https://www.stlouisfed.org/bank-supervision/2013-community-banking-conference/videos/small-business-lending-and-social-capital-are-rural-relationships-different or https://www.stlouisfed.org/Publications/Regional-Economist/April-2002/Community-Ties-Does-Relationship-Lending-Protect-Small-Banks-When-the-Local-Economy-Stumbles.

[2] See HAC (2012) for a description how mortgage finance in rural communities has evolved over the last decade.

[3] See 12 U.S.C. 4565(a)(1).

NSMO data allow us to compare the expectations, perceptions, knowledge, experience, and satisfaction of respondents in completely rural areas with those respondents in other rural areas, as well as urban areas. The remaining sections of the article summarize the relevant literature; define the three geographical groups used in the analysis; and describe the geographic differences in property, loan, and borrower characteristics, borrowers' experience and knowledge, and borrower's lender and mortgage choice.

Literature

This article bridges two largely distinct literatures, namely, (1) studies of rural housing and mortgage markets, and (2) the literature on borrower perceptions and experiences within the mortgage market.

The first set of studies have described the trends in employment, incomes, and housing market characteristics across the urban-rural divide (HAC, 2012; Mota, 2016; USDA, 2016) along with the effect and prevalence of government-sponsored enterprises in rural markets (Ambrose and Buttimer, 2005; MacDonald, 2001; Vandell, 1997). These studies compared rural and urban housing and mortgage markets at an aggregate level but did not consider differences in the characteristics of borrowers across rural and urban areas.

Because these studies did not consider the differences in characteristics between rural and urban borrowers, they generally find differences in borrower perceptions and experience by income, race and ethnicity, and prior experience with mortgages, rather than across area distinctions. Bucks and Pence (2008) showed that consumers were aware of the general terms of their mortgage (for example, adjustable-rate versus fixed-rate mortgages, number of months of required payment, and required monthly payment amount); they were less aware of details about potential interest rate changes in their adjustable-rate mortgages. Huang et al. (2017) reported that there were common misperceptions among borrowers about mortgage qualification criteria; specifically, borrowers tended to overestimate minimum credit score and down payment requirements. Cai and Shahdad (2015) found that one-third of homebuyers in their sample did not obtain quotes from multiple lenders when shopping for a mortgage. In addition, Cai and Shahdad concluded that borrowers with higher incomes, younger borrowers, and minority borrowers were more likely to obtain multiple lender quotes compared with other borrowers; while lower-income and first-time homebuyers were particularly likely to use family, friends, and co-workers when selecting a lender.

[4] This lack of data has limited the academic and policy research on rural mortgage markets, and both Fannie Mae and Freddie Mac cite lack of data and research on rural mortgage lending as one of the critical issues in rural mortgage markets. See Freddie Mac's "Freddie Mac Duty to Serve Underserved Markets Plan" from December 2017 and Fannie Mae's "Introduction of the Duty to Serve Underserved Markets Plan for the Manufactured Housing, Affordable Housing Preservation, and Rural Housing Markets" from December 2017.

[5] NSMO and NMDB are described in the guest editor's introduction.

[6] While the NSMO data for the regular sample is publicly available, the data for the supplemental NSMO sample is not publicly available for privacy considerations because membership in the supplemental sample conveys information about the location of the borrowers, which is suppressed in the public use NSMO. Out of the 1,000 surveys mailed in the supplemental survey, only 267 were useable records.

Definition of Urban and Rural Areas

We classify U.S. counties into three groups based on the U.S. Department of Agriculture's (USDA) county-level Rural Urban Continuum Code (RUCC) classification from 2013.[7] The first group, which we refer to as "metro" counties, consists of 1,167 counties in Metropolitan Statistical Areas (MSA) (RUCC codes 1, 2, or 3).[8] The second group includes 1,332 counties that are not in metropolitan areas, but have at least one urban cluster of 2,500 or more people (RUCC codes 4, 5, 6, or 7)—many of these counties, which we refer to as "non-metro" counties, are in Micropolitan Statistical Areas.[9] The last group, which we refer to as "completely rural" counties, comprises 644 counties that are designated as "completely rural or less than 2,500 urban population" (RUCC codes 8 or 9). The supplemental NSMO sample used in this article was drawn from mortgages in completely rural counties.

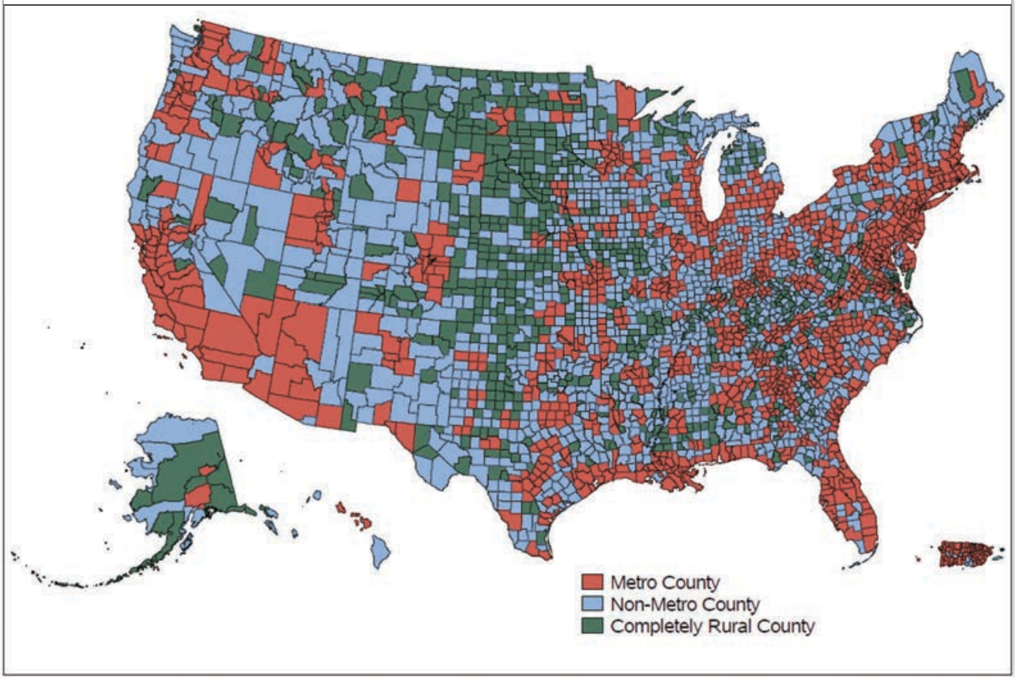
Using this classification, 37 percent are metro counties, 42 percent are non-metro counties, and 21 percent are completely rural counties. Exhibit 1 shows that most counties along the coasts are metro counties.[10] Non-metro counties are spread throughout the country, but the coasts have the lowest share ranging from 33 percent of counties in the Middle Atlantic Census division to 35 percent in the Pacific division. Completely rural counties are primarily located in parts of the Midwestern, Mountain, and Southern states.

Exhibit 2 shows the share of the 2014 population and housing units in each of the three county types according to the Census Bureau's American Community Survey (ACS) 2010–2014 5-Year Estimates.

[7] While there are many definitions of "rural" areas in the literature and government programs, including DTS, this article arises out of the supplemental NSMO sample and is restricted to how the sample was drawn. See USDA documentation at https://www.ers.usda.gov/data-products/rural-urban-continuum-codes/documentation/.
[8] MSAs have at least one urbanized area of 50,000 or more population, plus adjacent territory that has a high degree of social and economic integration with the core as measured by commuting patterns.
[9] Micropolitan Statistical Areas have at least one urban cluster of at least 10,000 but less than 50,000 population, plus adjacent territory that has a high degree of social and economic integration with the core as measured by commuting patterns. For the USDA, "non-metro" would include RUCC codes 8 and 9, but we have broken them out for the purpose of this study.
[10] The Census Bureau divides the country into four regions and nine divisions.

Exhibit 1

Geographic Classification of Counties and County Equivalents



Source: USDA RUCC data, 2013

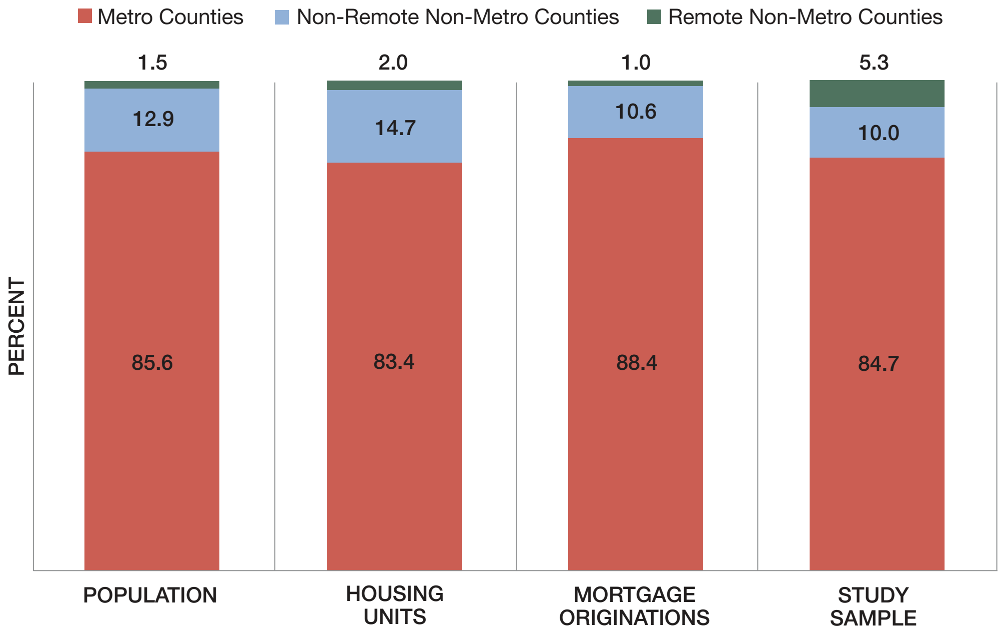
Most people and housing units in the United States—86 percent of people and 85 percent of housing units—were in metro counties in 2014. The remaining population and housing units were primarily located in non-metro counties. Completely rural counties accounted for only 2 percent (4.6 million people) of the U.S. population and 2 percent (2.6 million housing units) of housing units in 2014.

The final bars in exhibit 2 show the share of mortgage originations by geographic location. The share of mortgage originations in metro counties is 88.4 percent, a few percentage points higher than the share of people and housing units in these areas. Furthermore, just 1 percent of originations, or 55,000 loans, were in completely rural counties.[11] This highlights the importance of drawing a supplemental sample of mortgages in completely rural counties in order to obtain more accurate estimates. In particular, about 5 percent of our sample (345 out of 6,540) is for mortgages in completely rural areas, a sample size that is five times larger than a simple random sample of the country would be expected to yield for these areas.[12]

[11] County-type shares of NMDB 2014 originations in the NMDB data are similar to those in HMDA 2014 data, where metro accounts for 89.4 percent of originations, non-metro 9.7 percent, and completely rural 1.0 percent of originations.
[12] Analysis in this article, including the regressions, is based on analytic weights that account for both the sampling weight and the non-response adjustment. For each survey response, the sample weight adjusted for non-response was computed by multiplying the sampling weight and the non-response adjustment. Then, the analytic weight was computed separately for each of the following three groups: (1) mortgages in completely rural counties included in the special supplementary sample (267 mortgages), (2) mortgages in completely rural counties included in the regular sample (78 mortgages), and (3) mortgages in non-metro and metro counties included in the regular sample (6,273 mortgages). The analytic weight for a survey response was computed by multiplying the non-response-adjusted sample weight of that survey response by the total sample size of the group and dividing it by the sum of the non-response-adjusted sample weight of that group. The total number of completely rural mortgages in the analysis sample is 345 (267+78).

Exhibit 2

Population, Housing Unit, Mortgage Originations, and Sample Size by County Type, 2014



Note: Study sample includes a special oversample of mortgages originations in completely rural counties.
Sources: Census Bureau ACS 2010–2014 5-year estimates data for population and housing units by county; NMDB® data for 2014 first-lien mortgage originations; NSMO 2014 data for sample sizes by county

Geographic Differences in Property, Loan, and Borrower Characteristics

The primary data we use are survey responses from the regular quarterly NSMO samples and a special supplemental sample of borrowers in completely rural areas.[13] NSMO data cover a representative sample of first-lien residential mortgages taken out since 2013.

Exhibit 3 shows property and mortgage characteristics for our sample. Because purchasers and refinancers may have different expectations, knowledge, or experience, we present results for all originations, purchase mortgages, and refinance mortgages, separately.

Compared with those in metro areas, properties associated with mortgage originations in completely rural and non-metro areas were less likely to be single-family attached dwellings, and were more likely to be manufactured homes.[14] Manufactured housing is often titled as *chattel* (personal property) even though about three-fifths of manufactured-housing residents own the

[13] The supplemental sample uses the same questionnaire as the regular sample for 2014 mortgages with a few exceptions noted later.
[14] Single-family attached dwellings include townhouses, row houses, villas, apartments, and multi-unit dwellings. In the NSMO survey, mobile and manufactured homes are identified as manufactured housing because all such homes built after 1976 are defined by the HUD as manufactured housing.

Exhibit 3

Property, Mortgage, and Borrower Characteristics by Mortgage and Market Type (1 of 2)

Characteristics	All Mortgages			Purchase Mortgages			Refinance Mortgages		
	Metro (%) (n=5,541)	Non-Metro (%) (n=654)	Completely Rural (%) (n=345)	Metro (%) (n=3,044)	Non-Metro (%) (n=348)	Completely Rural (%) (n=161)	Metro (%) (n=2,497)	Non-Metro (%) (n=306)	Completely Rural (%) (n=184)
Purchase Mortgage Share	55	52	53	NA	NA	NA	NA	NA	NA
Property Type									
Single-Family Detached	83	86	86	82	88	89	84	85	83
Attached	16	7	2	17	8	2	15	5	2
Mobile or Manufactured	1	6	9	1	2	5	1	10	13
Land	0	1	3	0	2	4	0	0	2
Loan Amount									
Less than $50,000	3	10	14	2	8	10	4	12	17
$50,000 to $149,999	35	60	55	34	60	60	38	59	50
$150,000 to $299,999	39	25	27	41	27	29	37	24	25
$300,000 or More	22	5	4	23	5	1	22	5	8
Mortgage Term to Maturity									
30 Years or More	76	65	59	89	82	78	60	47	38
Median Terms (in Years)	30	30	30	30	30	30	30	20	15
Loan-to-Value (LTV) Ratio (Median)	80	80	80	88	90	95	73	74	73
Household Income									
Less than $35,000	6	12	10	6	12	8	7	11	13
$35,000 to $49,999	10	15	21	11	16	20	9	13	21
$50,000 to $74,999	18	23	28	20	21	30	16	24	25
$75,000 to $99,999	18	25	16	18	21	14	19	28	17
$100,000 to $174,999	30	20	20	29	21	21	31	18	20
$175,000 or More	17	7	5	17	8	7	17	5	3
Household Employment									
One or More Full-Time	87	83	81	90	86	86	84	79	75
None Full-Time	13	17	19	10	14	14	16	21	26
Household Type									
Couple	76	78	75	76	75	76	75	81	74
Single	24	22	25	24	25	24	25	19	26
Respondent Race/Ethnicity									
Non-Hispanic White	77	90	92	77	89	94	77	91	91
Hispanic and Non-White	23	10	8	23	11	7	23	9	9

Exhibit 3

Property, Mortgage, and Borrower Characteristics by Mortgage and Market Type (2 of 2)

Characteristics	All Mortgages			Purchase Mortgages			Refinance Mortgages		
	Metro (%) (n=5,541)	Non-Metro (%) (n=654)	Completely Rural (%) (n=345)	Metro (%) (n=3,044)	Non-Metro (%) (n=348)	Completely Rural (%) (n=161)	Metro (%) (n=2,497)	Non-Metro (%) (n=306)	Completely Rural (%) (n=184)
Respondent Age									
35 or Younger	28	29	30	40	39	45	13	17	13
36 to 45	23	24	23	23	24	25	23	24	20
46 to 55	23	19	17	17	16	10	29	23	24
56 to 65	16	17	19	12	14	12	22	21	25
66 or Older	10	11	12	7	8	8	13	15	17
Median	*45*	*45*	*43*	*39*	*39*	*37*	*51*	*49*	*52*
Respondent Education									
Some School	1	2	3	1	2	3	2	1	2
High School	10	21	19	8	13	14	11	29	26
Technical School	5	9	8	4	8	8	5	9	8
Partial College	20	23	21	19	24	21	22	22	22
College Degree	36	29	35	38	33	40	34	25	30
Postgraduate	28	17	14	29	20	14	26	13	13
Respondent Credit Score									
Lower Than 620	5	10	9	4	7	9	6	14	8
620 to 639	4	5	6	4	6	4	4	3	8
640 to 659	6	5	9	5	6	12	7	4	5
660 to 679	6	8	8	6	7	7	7	9	10
680 to 699	8	10	9	8	10	9	8	10	9
700 to 719	8	9	12	8	10	11	7	9	14
720 to 739	10	10	12	11	9	17	10	11	7
740 or Higher	52	43	35	54	46	31	50	40	39
Median	***744***	***725***	***716***	***747***	***729***	***717***	***739***	***720***	***714***

NA = data not available.
Notes: Attached properties include townhouses, row houses, villas, apartments, and multi-unit dwellings. VantageScore® 3.0 credit score ranges from 300 to 850.
Source: NSMO, 2014

land it is sited on (CFPB, 2014). Because chattel loans generally are not identifiable as mortgages in the NMDB credit files, the NSMO sample misses most chattel loans and thus substantially undercounts loans for manufactured housing. We found the percentage of initial purchases for manufactured housing much lower than for resale or any refinancing transactions for the same. Underrepresentation of manufactured housing may not be as severe for refinance mortgages or purchase mortgages by repeat buyers. Homeowners may be able to obtain mortgage refinancing on manufactured housing originally titled as chattel after a title change if the house is on a permanent foundation and especially if they also own the underlying land.[15]

Generally, mortgage loan amount was lowest in completely rural counties and highest in metro counties. In addition, loans with terms of less than 30 years were more common in completely rural areas. This partially reflects the greater share in completely rural areas of manufactured housing loans, which tend to have shorter terms. Nonetheless, these differences in loan terms persist even when manufactured housing are excluded from the samples. Purchase loans in completely rural counties had a higher median loan-to-value (LTV) ratio.[16]

This is partly explained by the slightly higher share of purchasers in completely rural counties that were first-time homebuyers, who tend to have loans with higher LTVs.[17]

NSMO is a representative sample of mortgages, but the survey is answered by a single respondent who may be one of multiple borrowers. Seventy-five percent of mortgage loans involve multiple borrowers. For simplicity, we refer to the respondents as "borrowers." In characterizing borrowers, we focus on age, household type, number of co-borrowers, race and ethnicity, education, employment, income, and credit scores.

Overall, borrowers in completely rural areas had lower incomes, were less likely to be employed full-time, and were more likely to identify as non-Hispanic White. Age differences across areas were small, though purchasers were slightly younger and refinancers were slightly older in completely rural counties than in metro and non-metro areas. Educational levels differed more noticeably with metro borrowers more likely than others to have a graduate degree. Although median credit scores were only slightly lower in completely rural counties than in more populous areas, the share of borrowers with a credit score of at least 740 was much lower in completely rural counties (35 percent) than in non-metro (43 percent) and metro (52 percent) counties.[18]

[15] According to the Manufactured Housing Resource Guide by the National Consumer Law Center, approximately three-quarters of the states have statutes that set forth a procedure to convert a manufactured home from personal to real property and document that conversion. See https://www.nclc.org/images/pdf/manufactured_housing/cfed-titling-homes.pdf.
[16] The LTV ratio is obtained by dividing the mortgage loan amount by the property value, and the difference between 100 percent and the LTV indicates the borrower's share of equity on the property. A typical mortgage will have an LTV of 80 percent, which indicates that the borrower has 20 percent equity in the property.
[17] First-time purchases are purchase mortgages taken out by borrowers who were younger than 55 years of age, who did not have any record of having a prior mortgage in the NMDB data, and who were buying a house they will primarily live in.
[18] VantageScore® 3.0 is the credit scoring model developed jointly by Equifax, Experian, and TransUnion. The NMDB contains VantageScore® 3.0 credit scores that range from 300 to 850. Generally, the higher a borrower's credit score is, the less risky the borrower is assumed to be. See https://your.vantagescore.com/resource/52/understanding-credit-scores.

The smaller share of completely rural borrowers with scores of 740 or greater suggests that loans in completely rural areas were likely to have higher interest rates because the best rates are typically offered to borrowers with scores above 740. To test this conjecture, we examine whether there were statistically significant differences in Freddie Mac's Primary Mortgage Market Survey (PMMS®) spread across the analysis groups (metro, non-metro, and completely rural).[19] We consider both the observed difference in PMMS spreads as well as an adjusted difference based on a regression model that accounts for borrowers, property, and loan attributes:

$$PMMS\_Spread_{i,c} = \alpha + \rho_{CR}\, CR_c + \rho_{NM}\, NM_c + \beta X_i + \varepsilon_{i,c}$$

The equation models the PMMS spread of the loan originated to borrower i in analysis group c ($PMMS\_Spread_{i,c}$) on indicator variables of whether analysis group c is completely rural (CR_c) or non-metro (NM_c), as well as a vector of borrower, property, and loan attributes (X_i). The coefficient estimates for ρ_{CR} and ρ_{NM} indicate the average difference in the PMMS spread for loans originated in completely rural and non-metro counties relative to metro counties.

Exhibit 4 displays the coefficient estimates and indicators of statistical significance for the sample of all mortgages, and then separately for purchase and refinance mortgages. This exhibit also provides the borrower, property, and loan attributes that are used as control variables for estimating the differences between counties.[20] Borrowers in completely rural counties indeed paid a slightly higher interest rate than borrowers in metro areas,[21] and the spread over the PMMS rate for borrowers in completely rural counties was 14 basis points higher than metro areas with a statistically significant difference. The results imply that completely rural borrowers paid 16 basis points more than non-metro borrowers. While 14 basis points appears small for the average of completely rural counties, a mortgage of $100,000 with a 4.00 percent rate that moved to 4.14 percent would cause the monthly payment to rise $8.10, or $97.20 per year, and cost the borrower $2,916.00 over the life of the loan. For purchase mortgages, the differences between completely rural and metro areas was 24 basis points and statistically significant, but the refinance mortgages difference was not significant. Notably, in this regression framework, the PMMS spread does not vary significantly with most borrower characteristics, whereas the purchase flag, loan amount, property type, and credit score are statistically significant predictors of the interest rate spread.

Geographic Differences in Borrowers' Experiences and Knowledge

In examining differences in mortgage borrowers' experience and knowledge by geography, we use the framework of the PMMS equation and exhibit 4 to examine borrowers' self-reported satisfaction, knowledge, and lender selection. More specifically, exhibit 5 shows the results of the NSMO asking borrowers how satisfied they were with several aspects of their mortgage and the

[19] Freddie Mac publishes the average PMMS rate by mortgage term on a weekly basis. The PMMS spread is calculated as the difference between the actual note rate of a mortgage and Freddie Mac's PMMS average prime offer note rate for that term at that time. This spread indicates how expensive a mortgage is compared to the average mortgage of similar term taken out in that week. The spread used in this article is unbounded while the spread in the NSMO public use file is bounded for privacy considerations.

[20] Some of the controls, such as race, ethnicity, age and gender, are characteristics that lenders do not or cannot use in loan pricing models. We include them to account indirectly for unmeasured characteristics that may be correlated with these controls.

[21] The R-squared for the models ranged from 0.06070 to 0.08412.

Exhibit 4

Spread Regression

		All Mortgages	Purchase Mortgages	Refinance Mortgages
Average for Metro (M) (Percentage Points)		0.22	0.19	0.27
Controlled Model				
Parameter	**Categories**	**Estimate**	**Estimate**	**Estimate**
	Intercept	0.22***(0.03)	0.15***(0.03)	0.23***(0.03)
	Non-Metro (NM)	– 0.03 (0.03)	– 0.04 (0.04)	– 0.02 (0.04)
	Completely Rural (CR)	0.14***(0.04)	0.23***(0.05)	0.05 (0.05)
	Purchase Mortgage	– 0.06***(0.02)	NA	NA
Property Type:	Mobile or Manufactured	0.10*(0.06)	0.16*(0.10)	0.06 (0.07)
	Attached	0.06**(0.02)	0.02 (0.03)	0.11***(0.03)
	Land	0.06 (0.12)	0.03 (0.03)	NA
Loan Amount:	Less Than $50,000	0.31***(0.04)	0.37***(0.06)	0.27***(0.06)
	$50,000 to $149,999	0.12***(0.02)	0.13***(0.03)	0.11***(0.03)
	$300,000 or More	– 0.15***(0.02)	– 0.11***(0.03)	– 0.19***(0.03)
Reported Household Income:	Less Than $35,000	0.01 (0.04)	0.008 (0.05)	0.02 (0.05)
	$35,000 to $49,999	– 0.03 (0.03)	– 0.05 (0.04)	0.001 (0.05)
	$50,000 to $74,999	– 0.01 (0.03)	– 0.04 (0.03)	0.02 (0.04)
	$100,000 to $174,999	– 0.01 (0.02)	– 0.004 (0.03)	– 0.03 (0.03)
	$175,000 or More	– 0.07**(0.03)	– 0.11***(0.04)	– 0.04 (0.04)
Household Type:	Single	– 0.001 (0.02)	– 0.007 (0.03)	0.006 (0.03)
Respondent Race/Ethnicity:	Hispanic and Non-White	– 0.03 (0.02)	– 0.03 (0.03)	– 0.02 (0.03)
Respondent Age:	35 or Younger	– 0.01 (0.02)	– 0.002 (0.03)	0.008 (0.04)
	46 to 55	– 0.01 (0.02)	0.05 (0.03)	– 0.08**(0.03)
	56 to 65	– 0.05*(0.03)	– 0.02 (0.03)	– 0.08**(0.03)
	66 or Older	– 0.04 (0.03)	0.03 (0.05)	– 0.10**(0.04)
Respondent Education:	Some School	0.03 (0.07)	0.07 (0.10)	0.008 (0.10)
	High School	0.06**(0.03)	0.06 (0.04)	0.06 (0.04)
	Technical School	0.05 (0.04)	0.05 (0.05)	0.06 (0.05)
	Partial College	0.05**(0.02)	0.07**(0.03)	0.04 (0.03)
	Postgraduate	– 0.02 (0.02)	– 0.01 (0.03)	– 0.02 (0.03)
Respondent Credit Score:	Lower Than 620	0.16***(0.03)	0.05 (0.05)	0.24***(0.05)
	620 to 639	0.06 (0.04)	– 0.05 (0.06)	0.19***(0.06)
	640 to 659	0.12***(0.03)	0.04 (0.05)	0.20***(0.05)
	660 to 679	0.08**(0.03)	0.08*(0.05)	0.08*(0.04)
	680 to 699	0.11***(0.03)	0.06 (0.04)	0.18***(0.04)
	700 to 719	0.01 (0.03)	– 0.02 (0.04)	0.03 (0.04)
	720 to 739	0.04 (0.03)	0.04 (0.04)	0.04 (0.04)
Number of Observations		6,540	3,553	2,987
R-Squared		0.07	0.06	0.08

NA = data not available.
** denotes significance at 10-percent level. ** denotes significance at 5-percent level. *** denotes significance at 1-percent level.*
Notes: The controlled difference model has the following covariates for the respondent: age, race/ethnicity, credit score, and education; and household: household type, annual income, mortgage loan amount, and property type. The controlled difference model intercept reflects the percentages for respondents who were 36 to 45 years old, non-Hispanic White, and in a coupled household; who had a college degree or higher, credit score of 740 or higher, annual household income from $75,000 to $99,999, and mortgage loan amount from $150,000 to $299,999; and who lived in a single-family detached house.
Survey question: "What is the interest rate on this mortgage?"
Source: NSMO, 2014

mortgage process.[22] Most borrowers were "very satisfied" with their mortgage and the mortgage process, but borrowers in completely rural counties were less likely be "very satisfied," as most of the completely rural–metro differences in exhibit 5 are negative and statistically significant.

Exhibit 5

Satisfaction of Borrowers with Mortgage and Mortgage Process

	Percent	Controlled Difference Model: County Type Difference (Percentage Point)		
Share "Very Satisfied"	**M**	**NM – M**	**CR – M**	**CR – NM**
All Mortgages				
Best Terms to Fit Needs	78	2	– 8***	– 10***
Lowest Interest Rates Qualified	70	3	– 3	– 6*
Lowest Closing Costs	58	1	– 6**	– 6*
Lender	76	1	0	– 1
Settlement Agent	70	1	– 4	– 5
Application Process	62	0	– 3	– 3
Loan Closing Process	66	0	– 8***	– 9***
Disclosure Documents	65	1	– 8***	– 8***
Timeliness of Documents	64	1	– 9***	– 11***
Purchase Mortgages				
Best Terms to Fit Needs	78	2	– 7**	– 9**
Lowest Interest Rates Qualified	70	– 1	– 8**	– 7*
Lowest Closing Costs	55	– 2	– 5	– 3
Lender	76	– 3	2	5
Settlement Agent	69	2	– 4	– 6
Application Process	61	– 3	– 5	– 2
Loan Closing Process	64	– 1	– 9**	– 8*
Disclosure Documents	63	– 1	– 8**	– 7
Timeliness of Documents	63	1	– 10***	– 12***
Refinance Mortgages				
Best Terms to Fit Needs	78	3	– 10***	– 13***
Lowest Interest Rates Qualified	70	7**	2	– 5
Lowest Closing Costs	61	3	– 7*	– 10**
Lender	76	5**	– 2	– 8*
Settlement Agent	71	0	– 3	– 4
Application Process	63	3	1	– 4
Loan Closing Process	69	1	– 7*	– 9*
Disclosure Documents	66	3	– 7*	– 10**
Timeliness of Documents	66	1	– 8**	– 10**

CR = completely rural counties. M = metro counties. NM = non-metro counties.
** denotes significance at 10-percent level. ** denotes significance at 5-percent level. *** denotes significance at 1-percent level.*
Notes: The controlled difference model has the following covariates for the respondent: age, race/ethnicity, credit score, and education; and household: household type, annual income, mortgage loan amount, and property type. The controlled difference model intercept reflects the percentages for respondents who were 36 to 45 years old, non-Hispanic White, and in a coupled household; who had a college degree or higher, credit score of 740 or higher, annual household income from $75,000 to $99,999, and mortgage loan amount from $150,000 to $299,999; and who lived in a single-family detached house.
Survey questions: "Overall, how satisfied are you that the mortgage you got was one with the following? Overall, how satisfied are you with the following?"
Source: NSMO, 2014

[22] The survey asked borrowers if satisfaction with the mortgage they got was: (1) the best terms to fit their needs, (2) the lowest interest rate for which they qualified, and (3) the lowest closing costs. The survey asked the borrowers about satisfaction with: (1) their lender or broker, (2) their settlement agent, (3) the application process, (4) the loan closing process, (5) the information in the disclosure documents, and (6) timeliness of mortgage disclosure documents.

The share of borrowers in completely rural counties who were "very satisfied" that they received a mortgage with the best terms to fit their needs was 8 and 10 percentage points lower than the shares in metro counties and non-metro counties, respectively. Completely rural borrowers were also 6 percentage points less likely than those in metro areas to report that they were very satisfied they received the lowest closing costs. Completely rural borrowers were 8 to 9 percentage points less likely to be very satisfied with the closing process, disclosure documents, and timeliness of mortgage documents. This pattern largely holds for refinance mortgages, and for both completely rural/metro and completely rural/non–metro comparisons. For purchase mortgages, these differences are less likely to be significant.

The NSMO data offer several measures of borrowers' expectations at the start of the mortgage process and familiarity with aspects of mortgage lending. These include borrowers' indications of how concerned they were about qualifying for a mortgage and how firm an idea they had about the type of mortgage they wanted. The difference in concern about qualifying for a mortgage between metro, non-metro, and completely rural borrowers was virtually nil. Exhibit 6, however, shows that completely rural borrowers were less likely to have a firm idea about the type of mortgage they wanted than borrowers in the other two areas.

The survey measured borrowers' understanding of the mortgage process by asking about their familiarity with their own credit history; available interest rates and mortgage products; and requirements—such as income and down-payment requirements—to obtain a mortgage.

Exhibit 6

Borrower Concern about Qualifying and Idea about Mortgage Wanted

	Percent	Controlled Difference Model: County Type Difference (Percentage Point)		
	M	NM – M	CR – M	CR – NM
All Mortgages				
Not at All Concerned	52	– 1	– 1	– 1
Have Firm Idea	59	0	– 6**	– 6*
Purchase Mortgages				
Not at All Concerned	47	3	1	– 3
Have Firm Idea	54	– 1	– 4	– 3
Refinance Mortgages				
Not at All Concerned	57	– 5*	– 3	2
Have Firm Idea	65	1	– 8**	– 9*

CR = completely rural counties. M = metro counties. NM = non-metro counties.
** denotes significance at 10-percent level. ** denotes significance at 5-percent level.*
Notes: The controlled difference model has the following covariates for the respondent: age, race/ethnicity, credit score, and education; and household: household type, annual income, mortgage loan amount, and property type. The controlled difference model intercept reflects the percentages for respondents who were 36 to 45 years old, non-Hispanic White, and in a coupled household; who had a college degree or higher, credit score of 740 or higher, annual household income from $75,000 to $99,999, and mortgage loan amount from $150,000 to $299,999; and who lived in a single-family detached house.
Survey questions: "When you began the process of getting this mortgage, how concerned were you about qualifying for a mortgage? How firm an idea did you have about the mortgage you wanted?"
Source: NSMO, 2014

Generally, borrowers in completely rural counties were less familiar with aspects of mortgage lending than borrowers in non-metro or metro counties, as shown in exhibit 7. Borrowers were typically very familiar with their credit history with little differences among the areas. Completely rural counties had a smaller fraction of borrowers who were very familiar with interest rates available, the types of mortgages available, the mortgage process, down-payment requirements, and income requirements. Completely rural borrowers and refinancers among them were also less likely to be very familiar with the money required for closing. These results were consistent with the notion that borrowers in completely rural counties have less information or fewer lenders to choose from than borrowers in metro areas.

Exhibit 7

Borrower Familiarity with Aspects of Mortgage Lending

	Percent	Controlled Difference Model		
		County Type Difference (Percentage Point)		
Share "Very Familiar"	M	NM – M	CR – M	CR – NM
All Mortgages				
Credit History or Score	76	2	– 1	– 3
Interest Rates Available	58	1	– 8***	– 9***
Mortgage Types Available	48	– 2	– 9***	– 7**
Mortgage Process	55	0	– 10***	– 11***
Down Payment to Qualify	59	1	– 9***	– 9***
Income Needed to Qualify	57	0	– 8***	– 8**
Money Needed for Closing	51	– 1	– 9***	– 8**
Purchase Mortgages				
Credit History or Score	75	– 1	0	1
Interest Rates Available	54	0	– 8**	– 9*
Mortgage Types Available	45	– 4	– 10***	– 6
Mortgage Process	49	1	– 9**	– 10**
Down Payment to Qualify	60	– 1	– 8**	– 7*
Income Needed to Qualify	54	2	– 6	– 8*
Money Needed for Closing	48	– 4	– 5	– 2
Refinance Mortgages				
Credit History or Score	77	4	– 3	– 7*
Interest Rates Available	64	1	– 8**	– 10**
Mortgage Types Available	51	0	– 8**	– 8*
Mortgage Process	64	– 3	– 13***	– 10**
Down Payment to Qualify	59	0	– 10**	– 10**
Income Needed to Qualify	60	– 3	– 10**	– 7
Money Needed for Closing	55	0	– 13**	– 13**

CR = completely rural counties. M = metro counties. NM = non-metro counties.
** denotes significance at 10-percent level. ** denotes significance at 5-percent level. *** denotes significance at 1-percent level.*
Notes: The controlled difference model has the following covariates for the respondent: age, race/ethnicity, credit score, and education; and household: household type, annual income, mortgage loan amount, and property type. The controlled difference model intercept reflects the percentages for respondents who were 36 to 45 years old, non-Hispanic White, and in a coupled household; who had a college degree or higher, credit score of 740 or higher, annual household income from $75,000 to $99,999, and mortgage loan amount from $150,000 to $299,999; and who lived in a single-family detached house.
Survey question: "When you began the process of getting this mortgage, how familiar were you with each of the following?"
Source: NSMO, 2014

The NSMO also probed borrowers on their knowledge about mortgage concepts by asking them how well they could explain the concepts to someone else. Based on borrowers' responses, the mortgage concepts from the least to the most challenging are:

(1) difference between fixed and adjustable rates,
(2) consequences of not making required payments,
(3) difference between interest rate and annual percentage rate (APR),
(4) amortization of a loan, and
(5) difference between prime and subprime loans.

We classify the first two as simple concepts and the last three as complex concepts.

Overall, borrowers were more knowledgeable about simple concepts than they were about complex concepts as shown in exhibit 8. For the simple concept of adjustable versus fixed-rate mortgages, borrowers in completely rural counties were less likely to say they could explain the

Exhibit 8

Borrowers' Abilities to Explain Aspects of Mortgages

Share Able to Explain "Very Well"	Percent	Controlled Difference Model: County Type Difference (Percentage Point)		
	M	NM – M	CR – M	CR – NM
All Mortgages				
Fixed Versus Adjustable Rate	70	– 1	– 8***	– 7**
Consequence of Not Paying	67	1	– 3	– 3
Amortization of Loan	39	0	– 6**	– 5*
Interest Rate Versus APR	28	0	– 4	– 4
Prime Versus Subprime	22	– 1	– 2	– 1
Purchase Mortgages				
Fixed Versus Adjustable Rate	67	1	– 1	– 2
Consequence of Not Paying	66	2	1	0
Amortization of Loan	36	– 3	– 5	– 3
Interest Rate Versus APR	26	– 3	– 4	– 1
Prime Versus Subprime	20	– 2	0	2
Refinance Mortgages				
Fixed Versus Adjustable Rate	72	– 4	– 17***	– 13***
Consequence of Not Paying	68	– 1	– 9**	– 7
Amortization of Loan	41	2	– 5	– 7
Interest Rate Versus APR	31	4	– 3	– 7*
Prime Versus Subprime	24	2	– 4	– 5

APR = annual percentage rate. CR = completely rural counties. M = metro counties. NM = non-metro counties.
** denotes significance at 10-percent level. ** denotes significance at 5-percent level. *** denotes significance at 1-percent level.*
Notes: The controlled difference model has the following covariates for the respondent: age, race/ethnicity, credit score, and education; and household: household type, annual income, mortgage loan amount, and property type. The controlled difference model intercept reflects the percentages for respondents who were 36 to 45 years old, non-Hispanic White, and in a coupled household; who had a college degree or higher, credit score of 740 or higher, annual household income from $75,000 to $99,999, and mortgage loan amount from $150,000 to $299,999; and who lived in a single-family detached house.
Survey question: "How well could you explain to someone the following?"
Source: NSMO, 2014

differences very well. After adjusting for differences in characteristics of borrowers and loans, the share of borrowers in completely rural counties who could explain the differences very well was 8 percentage points lower than those in metro areas, and 7 percentage points lower than in non-metro counties. Refinancing transactions drove the overall differences, as the share of refinancers in completely rural counties able to explain the difference between adjustable and fixed rates very well was 17 percentage points lower than those in metro areas and 13 percentage points lower than those in non-metro counties. Fewer borrowers reported familiarity with complex mortgage concepts and there were no significant differences among the geographic areas.

The NSMO asked several questions about the shopping and the mortgage application process, namely, whether the borrower:

(1) picked the lender or broker before the loan;
(2) applied directly to a lender (as opposed to through a broker or a builder);
(3) initiated contact with the lender or broker (as opposed to those who were contacted by the lender or broker first, or those were who were put in touch with the lender or broker by a third party);
(4) seriously considered multiple lenders and brokers; and
(5) applied to multiple lenders or brokers.

We interpret the first three items as reflecting how proactive borrowers were with lender selection. The last two items reflect how much borrowers shopped across multiple lenders.

Exhibit 9 shows that most borrowers were proactive with lender selection—they picked the lender before the loan, initiated contact, and applied directly with a lender. With respect to shopping behavior, more than half of borrowers seriously considered applying to multiple lenders, but only one-fourth or fewer applied to more than one lender.

Outside of metro areas, borrowers were more proactive in initiating contact and applying directly to a lender. Completely rural borrowers seeking a loan for home purchase were more proactive than their home-purchase counterparts in metro areas, as they were 13 and 16 percentage points more likely to have applied directly or to have initiated contact, respectively. These borrowers may have fewer options for lenders in their area as solicitation by lenders may be less common in completely rural areas or lenders in those areas may have less competition.

These differences, however, do not translate into differences in the likelihood that a completely rural borrower considered or applied to multiple lenders. Borrowers who refinanced in non-metro counties were more proactive than those in metro areas, but they did not show a different level of engagement with multiple lenders than other areas.

The NSMO asked borrowers how likely they were to: sell their property, move but keep the property, refinance, or pay off the mortgage to have a mortgage-free property in the next couple of years. Borrowers' responses demonstrated their expectations about their property and mortgage. In our analysis, we combined borrowers who were very likely to take an action together with those who were somewhat likely to take that action and referred to these borrowers as generally likely to take that action.

Borrowers were generally very unlikely to take any of these actions, as seen in exhibit 10. Borrowers who refinanced were the most likely to report any of these anticipated actions, with 40

Exhibit 9

Borrowers' Mortgage Shopping and Application Steps

	Percent	Controlled Difference Model: County Type Difference (Percentage Point)		
	M	NM – M	CR – M	CR – NM
All Mortgages				
Picked Lender Before Loan	71	0	4	4
Applied Directly to a Lender	63	9***	10***	1
Borrower Initiated Contact	66	8***	12***	4
Considered Multiple Lenders	52	– 1	0	1
Applied to Multiple Lenders	23	– 2	0	3
Purchase Mortgages				
Picked Lender Before Loan	73	0	3	3
Applied Directly to a Lender	58	9***	13***	4
Borrower Initiated Contact	64	10***	16***	6
Considered Multiple Lenders	55	– 1	3	4
Applied to Multiple Lenders	26	– 5*	1	6
Refinance Mortgages				
Picked Lender Before Loan	68	1	5	4
Applied Directly to a Lender	69	10***	9**	– 1
Borrower Initiated Contact	69	5*	7**	3
Considered Multiple Lenders	49	– 2	– 4	– 2
Applied to Multiple Lenders	19	0	– 1	– 1

CR = completely rural counties. M = metro counties. NM = non-metro counties.
** denotes significance at 10-percent level. ** denotes significance at 5-percent level.*
Notes: The controlled difference model has the following covariates for the respondent: age, race/ethnicity, credit score, and education; and household: household type, annual income, mortgage loan amount, and property type. The controlled difference model intercept reflects the percentages for respondents who were 36 to 45 years old, non-Hispanic White, and in a coupled household; who had a college degree or higher, credit score of 740 or higher, annual household income from $75,000 to $99,999, and mortgage loan amount from $150,000 to $299,999; and who lived in a single-family detached house.
Survey questions: "Which of the following best describes your shopping process? How did you apply for the mortgage? Who initiated first contact between you and the lender/mortgage broker you used for the mortgage you took out? How many different lenders/mortgage brokers did you seriously consider before choosing where to apply for this mortgage? How many different lenders/mortgage brokers did you end up applying to?"
Source: NSMO, 2014

Exhibit 10

Borrowers' Mortgage and Property Expectations (1 of 2)

Share Stating "Likely" to	Percent	Controlled Difference Model: County Type Difference (Percentage Point)		
	M	NM – M	CR – M	CR – NM
All Mortgages				
Sell Property	34	– 3*	– 2	2
Move but Keep Property	23	– 2	– 1	1
Refinance Mortgage	31	– 3*	– 2	1
Have Mortgage-Free Property	22	2	2	0
Purchase Mortgages				
Sell Property	30	0	5	5
Move but Keep Property	23	– 2	4	6
Refinance Mortgage	34	– 1	– 5	– 4
Have Mortgage-Free Property	21	0	2	2

Exhibit 10

Borrowers' Mortgage and Property Expectations (2 of 2)

Share Stating "Likely" to	Percent	Controlled Difference Model: County Type Difference (Percentage Point)		
	M	NM – M	CR – M	CR – NM
Refinance Mortgages				
Sell Property	40	– 7**	– 9**	– 2
Move but Keep Property	23	– 3	– 6*	– 3
Refinance Mortgage	28	– 6**	0	6
Have Mortgage-Free Property	22	4	2	– 1

CR = completely rural counties. M = metro counties. NM = non-metro counties.
** denotes significance at 10-percent level. ** denotes significance at 5-percent level. *** denotes significance at 1-percent level.*
Notes: The controlled difference model has the following covariates for the respondent: age, race/ethnicity, credit score, and education; and household: household type, annual income, mortgage loan amount, and property type. The controlled difference model intercept reflects the percentages for respondents who were 36 to 45 years old, non-Hispanic White, and in a coupled household; who had a college degree or higher, credit score of 740 or higher, annual household income from $75,000 to $99,999, and mortgage loan amount from $150,000 to $299,999; and who lived in a single-family detached house.
Survey question: "How likely is it that in the next couple of years you will do the following?"
Source: NSMO, 2014

percent reporting they might sell the property in the next few years. Refinancers in completely rural counties were 9 percentage points less likely to sell their property in the next few years. Refinance borrowers in non-metro counties were 7 percentage points less likely than borrowers in metro areas to anticipate selling their homes, and were also less likely to report that they expect to refinance again in the next few years compared to both metro and completely rural refinancers.

Geographic Differences in Borrowers' Lender and Mortgage Choice

The detail of the question on how borrowers chose their lenders is an advantage of the NSMO survey. NSMO asked specifically about the importance of seven factors:

(1) reputation of the lender or broker,
(2) having an established banking relationship with the lender or broker,
(3) having a local office or branch of the lender or broker nearby,
(4) recommendation from a friend, relative or co-worker,
(5) recommendation from a real estate agent or builder, and
(6) whether the lender or broker was a friend.

Unfortunately, the survey questions changed from a three-point scale of "very," "somewhat," and "not at all" to a two-point scale of "important" and "not important" in the seventh wave of the survey when the supplemental sample was administered along with mostly 2015 mortgages from the regular sample. Consequently, we examined lender and mortgage choice with a different comparison group than that used in the earlier part of the article. Supplemental sample borrowers (267) were combined with regular sample borrowers who took out their mortgage in 2015 (6,199) to create an analysis file of borrowers who answered the question in the two-point scale. This led to a sample size of 6,466 mortgages with 5,508 (85 percent) in metro, 618 (10 percent) in non-metro, and 340 in completely rural counties shown in exhibits 11 and 12.[23]

[23] These county shares are comparable to the ones for the 2014 sample, reported in exhibit 2.

Borrowers most often identified lender reputation as an important factor for lender selection, followed by having an established banking relationship and a local office or branch. Having an established banking relationship was more important to borrowers in non-metro and completely rural counties than in metro areas, shown in exhibit 11. In contrast, metro borrowers felt the agent or builder recommendation was more important. Differences were even more stark in the importance of an established banking relationship and agent or builder recommendation for purchase mortgages. Furthermore, non-metro borrowers also stated that having a local office or branch was important more frequently than metro borrowers, particularly for refinancers.

Exhibit 11

Importance of Factors in Choosing a Lender

Share Stating Factor "Important"	Percent	Controlled Difference Model: County Type Difference (Percentage Point)		
	M	NM – M	CR – M	CR – NM
All Mortgages				
Reputation	71	– 4*	0	3
Established Bank Relationship	55	9***	9***	0
Local Office or Branch	49	8***	5	– 3
Friend/Relative Recommended	40	– 2	1	3
Agent/Builder Recommended	36	– 6***	– 12***	– 6**
Was a Friend or Relative	14	0	– 3	– 3
Purchase Mortgages				
Reputation	72	– 4	– 4	0
Established Bank Relationship	50	12***	19***	7
Local Office or Branch	55	5*	0	– 5
Friend/Relative Recommended	48	– 1	– 5	– 3
Agent/Builder Recommended	55	– 11***	– 21***	– 10**
Was a Friend or Relative	15	– 1	– 4	– 3
Refinance Mortgages				
Reputation	71	– 3	2	5
Established Bank Relationship	60	7**	0	– 7
Local Office or Branch	44	10***	7*	– 4
Friend/Relative Recommended	32	– 3	6*	9**
Agent/Builder Recommended	17	– 2	– 5*	– 3
Was a Friend or Relative	14	1	– 1	– 3

CR = completely rural counties. M = metro counties. NM = non-metro counties.
** denotes significance at 10-percent level. ** denotes significance at 5-percent level. *** denotes significance at 1-percent level.*
Notes: Given inclusion of 2015 NSMO observations, sample sizes for exhibits 8 and 9 differ from those in remaining tables. Sample sizes for this exhibit are: 5,508 for M, 618 for NM, and 340 for CR. The controlled difference model has the following covariates for the respondent: age, race/ethnicity, credit score, and education; and household: household type, annual income, mortgage loan amount, and property type. The controlled difference model intercept reflects the percentages for respondents who were 36 to 45 years old, non-Hispanic White, and in a coupled household; who had a college degree or higher, credit score of 740 or higher, annual household income from $75,000 to $99,999, and mortgage loan amount from $150,000 to $299,999; and who lived in a single-family detached house.
Survey question: "How important were each of the following in choosing the lender/mortgage broker you used for the mortgage you took out?"
Source: NSMO, 2014-2015

NSMO also asked about the importance of seven factors in deciding on a mortgage:

(1) lower interest rate,
(2) fixed-interest rate for the life of the loan,
(3) lower annual percentage rate (APR),
(4) lower closing fees,
(5) lower monthly payment,
(6) a term of 30 years, and
(7) no mortgage insurance.

Exhibit 12 shows the factors for selecting a mortgage are listed in the order of importance with near universal agreement that getting a lower interest rate was very important. For all mortgages, one difference between borrowers in non-metro areas relative to metro borrowers was their ranking of importance of having a lower monthly payment and not having mortgage insurance. The shares reporting these features as being important for mortgage selection in non-metro counties was between 4 and 6 percentage points lower than in metro counties. Completely rural purchasers were 7 percentage points less likely to indicate that having lower monthly payment was important than metro purchasers. Completely rural purchasers were also 8 to 10 percentage points less likely to indicate that a mortgage term of 30 years was important than non-metro and metro purchasers, respectively.

Exhibit 12

Importance of Factors in Choosing a Mortgage (1 of 2)

	Percent	Controlled Difference Model County Type Difference (Percentage Point)		
Share "Very Familiar"	M	NM – M	CR – M	CR – NM
All Mortgages				
Lower Interest Rate	98	0	0	0
Fixed-Interest Rate	89	1	– 1	– 3
Lower APR	88	– 1	2	3
Lower Closing Fees	84	0	0	1
Lower Monthly Payment	80	– 4**	– 3	1
30-Year Term	61	– 2	– 3	0
No Mortgage Insurance	58	– 6***	– 2	4
Purchase Mortgages				
Lower Interest Rate	97	– 1	0	1
Fixed-Interest Rate	89	0	– 1	– 1
Lower APR	87	0	1	1
Lower Closing Fees	82	1	– 2	– 3
Lower Monthly Payment	81	– 3	– 7**	– 4
30-Year Term	69	– 2	– 10**	– 8*
No Mortgage Insurance	54	– 6*	– 2	5

Exhibit 12

Importance of Factors in Choosing a Mortgage (2 of 2)

	Percent	Controlled Difference Model		
		County Type Difference (Percentage Point)		
Share "Very Familiar"	M	NM – M	CR – M	CR – NM
Refinance Mortgages				
Lower Interest Rate	98	1	0	– 1
Fixed-Interest Rate	90	2	– 1	– 3
Lower APR	88	– 2	3	6*
Lower Closing Fees	85	– 1	3	4
Lower Monthly Payment	80	– 4	1	5
30-Year Term	52	– 3	3	6
No Mortgage Insurance	62	– 6*	– 1	5

APR = annual percentage rate. CR = completely rural counties. M = metro counties. NM = non-metro counties.
** denotes significance at 10-percent level. ** denotes significance at 5-percent level. *** denotes significance at 1-percent level.*
Notes: Given inclusion of 2015 NSMO observations, sample sizes for exhibits 8 and 9 differ from those in remaining tables. Sample sizes for this exhibit are: 5,508 for M, 618 for NM, and 340 for CR. The controlled difference model has the following covariates for the respondent: age, race/ethnicity, credit score, and education; and household: household type, annual income, mortgage loan amount, and property type. The controlled difference model intercept reflects the percentages for respondents who were 36 to 45 years old, non-Hispanic White, and in a coupled household; who had a college degree or higher, credit score of 740 or higher, annual household income from $75,000 to $99,999, and mortgage loan amount from $150,000 to $299,999; and who lived in a single-family detached house.
Survey question: "How important were each of the following in determining the mortgage you took out?"
Sources: NSMO, 2014-2015

Conclusions

Rural credit markets are commonly viewed as differing from those in more populous areas for several reasons, including a greater share of smaller and locally focused lenders. This article offers, to our knowledge, the first comprehensive analysis that contrasts mortgage borrowers' expectations, knowledge, and outcomes in completely rural areas to those of borrowers in metro and non-metro areas. To do so, we take advantage of survey data from the NSMO, including a special sample of mortgage borrowers in completely rural counties.

The comparisons we provide do not paint a simple picture of how borrowers and mortgage markets differ by geographic location, as completely rural borrowers differ from other borrowers on some dimensions but not others. Nonetheless, the results provide some suggestive evidence that completely rural borrowers may have been initially less familiar with the mortgage market conditions, products, and requirements. Completely rural borrowers were significantly less likely than borrowers in metro areas to say they were very familiar with elements of the mortgage process—such as the down-payment requirements—when they began it. There were few significant differences by geographic location, however, in borrowers' self-reported level of concern in qualifying for a mortgage, or in their ability to explain specific mortgage features to someone else at the time of the survey. It is not clear how to reconcile these findings, but one possibility is that completely rural borrowers were less familiar at the outset because they expected to or relied more heavily on the lender to qualify for a loan and to become familiar with the details of getting a mortgage.

Our results may also point to a relatively greater importance of borrower-lender relationships outside of metro areas. For example, borrowers in completely rural and non-metro areas were more likely than those in metro areas to rate having an established relationship as important in choosing their lender. Additionally, completely rural borrowers were similarly satisfied with the lender, settlement agent, and the application process as were borrowers in more populous areas, even though they paid somewhat higher interest rates and were less likely to be very satisfied with the mortgage they obtained, or with the closing process.

We conclude this article with a note of caution. Results presented in this article are for three groups of counties as a whole. Because counties are very heterogeneous in each of the three groups, the results do not necessarily apply to any individual county.

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