



TECHNICAL REPORT 2

National Survey of Mortgage Originations Technical Documentation

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1. Introduction

The National Mortgage Database (NMDB[®]) program is jointly funded and managed by the Federal Housing Finance Agency (FHFA) and the Consumer Financial Protection Bureau (CFPB). The program is designed to provide a rich source of information about the U.S. mortgage market based on a five percent sample of residential mortgages. It has three primary components:

- (1) the National Mortgage Database (NMDB);
- (2) the National Survey of Mortgage Originations (NSMO); and
- (3) the American Survey of Mortgage Borrowers (ASMB).

The NMDB program enables FHFA to meet the statutory requirements of section 1324(c) of the Federal Housing Enterprises Financial Safety and Soundness Act of 1992, as amended by the Housing and Economic Recovery Act of 2008 (HERA).¹ Specifically, FHFA must, through a monthly survey of the mortgage market, collect data on the characteristics of individual mortgages including those eligible for purchase by Fannie Mae and Freddie Mac and those that are not, and including subprime and nontraditional mortgages. In addition, FHFA must collect information on the creditworthiness of borrowers, including a determination of whether subprime and nontraditional borrowers would have qualified for prime lending.²

For CFPB, the NMDB program supports policymaking and research efforts, and helps identify and understand emerging mortgage and housing market trends. CFPB uses NMDB, among other purposes, in support of the market monitoring called for by the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act), including understanding how mortgage debt affects consumers and for retrospective rule review required by this statute.³

In seeking to meet these objectives, FHFA and CFPB considered using existing databases but determined that none was sufficient and that a new database, NMDB, had to be created.⁴ NMDB is a de-identified loan-level database of closed-end first-lien residential mortgages. NMDB has the following features:

- (1) it is representative of the market as a whole;
- (2) it contains detailed, loan-level information on the terms and performance of mortgages, as well as characteristics of the associated borrowers and properties;
- (3) it is continually updated;
- (4) it has a historical component dating back before the financial crisis of 2008; and
- (5) it provides a sampling frame for NSMO and ASMB.

The core data in NMDB represent a statistically valid 1-in-20 random sample of all closed-end first-lien mortgages in the files of Experian, one of the three national credit bureaus.⁵ When the

¹ Housing and Economic Recovery Act of 2008, Pub. L. 110–289, 122 Stat. 2654 (2008).

² FHFA interprets the NMDB program, including NSMO, as the “survey” required by the Safety and Soundness Act. The statutory requirement is for a monthly survey. Core inputs to NMDB, such as a regular refresh of credit-repository data, occur monthly, though NSMO is conducted quarterly.

³ Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. 111-203, 124 Stat. 1376 (2010).

⁴ For a fuller description of NMDB, including a discussion of existing sources and their limitations, see NMDB Technical Report 1 at www.fhfa.gov/nmdb.

⁵ Experian was chosen through a competitive procurement process to assist in creating NMDB.

NMDB program began, an initial sample was drawn from all mortgage files outstanding at any point from January 1998 through June 2012. Since then the sample has been updated on a quarterly basis with mortgages newly reported to Experian. Mortgages are tracked in NMDB from at least one year prior to origination to one year after termination of the mortgage, whether that termination is through prepayment, adverse termination, or maturity.

NSMO is designed to complement the core NMDB by providing supplementary information related to borrower opinions, expectations, and experiences. This quarterly survey is voluntary, and its target universe is all newly originated closed-end first-lien residential mortgages and their associated borrowers. To achieve this objective, NSMO draws its sample from mortgages that are part of NMDB, whose sample is drawn from the same target universe of new loans.

Beginning with loans originated in 2013, a simple random sample of about 6,000 loans per quarter is drawn from loans newly added to NMDB for NSMO. At present, this represents a sampling rate of roughly 1-in-15 from NMDB (or 1-in-300 from all originations since NMDB itself is a 1-in-20 sample of loans).⁶

The remainder of this technical report is organized as follows. The second through fourth sections of this technical report provides background details on development of NSMO. The second section discusses the development of the survey questionnaire, including the approval granted by the Office of Management and Budget (OMB) as required by the Paperwork Reduction Act. The third section discusses the survey sampling frame and timeline, and the fourth section discusses the logistics of conducting the survey.

The fifth through ninth sections provide analysis and a discussion about the editing process of the survey data. The fifth section presents an analysis of survey responses for the first 21 waves. The sixth section explains how the usable population for analysis is derived, also for the first 21 waves. The seventh section describes the data cleaning, editing, and imputation processes used to refine the usable survey dataset. The eighth section discusses the construction of nonresponse-adjusted sample weights. The ninth section of the document discusses sampling error of the survey.

The tenth section provides an overview of techniques used to preserve respondent anonymity and data security, and the eleventh section describes a public-use data file newly available to the public for analysis.⁷

⁶ As of this writing, NSMO is currently in the field with Wave 25. Data in this document represent Waves 1 through 21.

⁷ There are three Appendices to this document. Appendix A presents the survey cover letters and the NSMO questionnaire used for Waves 19 through 22. Appendix B lists the retired survey questions. Appendix C cites the codebook that shows the changes in questions over the waves and tabulations with un-weighted frequency responses for all questions for the first 21 waves of the survey associated with mortgages originated from 2013 to 2017. These observations represent those included in the public-use data file.

2. Development of the Survey

In reaction to the financial crisis of 2008, Freddie Mac developed several pilot versions of what has now become NSMO. The initial pilot was administered as a mail survey to about 1,500 individuals drawn from data maintained by Experian, one of the three national credit bureaus. The pilot used a sample frame like that currently used by NSMO. The survey response rate was much lower than was hoped, at only 12 percent.

To improve the response rate, Freddie Mac retained the services of Don A. Dillman, of Washington State University, a leading expert in mail survey methods. Dr. Dillman focused on improving the survey response rate by changing the contacting strategy, participation incentives, communication strategy, and questionnaire format. His changes were incorporated into a second pilot survey in February 2011 that sampled new Freddie Mac purchase and refinance loans, and this second pilot survey had a vastly improved response rate of 60 percent.

In the fall of 2012, Freddie Mac conducted a third pilot survey targeting a representative national sample of new 2011 mortgage borrowers drawn from Experian files. The response rate for this survey was about 45 percent.

The improvements instituted in the later pilot surveys confirmed the effectiveness of using credit reporting bureau records as the survey sampling frame as well as the effectiveness of the questionnaire and methodology.

The NSMO questionnaire draws heavily on these pilots and leverages the input of an advisory group of experts from government, non-profit organizations, advocacy groups, trade groups, and academia that Freddie Mac convened when creating their questionnaires. This group played a significant role in ensuring that NSMO provided information of interest to policymakers, researchers, and data analysts.

NSMO focuses on topics such as mortgage shopping behavior, mortgage closing experiences, and other information that cannot be obtained from other sources, such as borrowers' expectations regarding house price appreciation and experiences of critical household financial events (for example, a period of unemployment, large medical expenses, or divorce). Borrowers are only asked a handful of questions about their mortgage terms, just enough to verify that the survey reached the correct person and that said person discussed the correct loan.

By interagency agreement between FHFA and CFPB, FHFA led the production of NSMO.⁸ This included seeking public comments concerning information collection as required by the Paperwork Reduction Act. On April 25, 2013, FHFA published in the *Federal Register* a 60-day Notice of Submission of Information Collection for Approval from the OMB. No comments were received for this notice. Subsequently, on July 1, 2013, FHFA published a 30-day Notice of Submission of Information Collection for Approval from OMB indicating that FHFA had received no comments during the 60-day comment period.

⁸ An interagency agreement between FHFA and CFPB was signed on September 12, 2012, where the costs of the survey and the development of NMDB are to be shared equally between the two agencies.

Following these *Federal Register* notices, OMB reviewed the FHFA application and approved the request in December 2013, assigning NSMO a control number of 2590-0012 with an expiration date of December 31, 2016. In April 2014, FHFA published a revised system of records notification (SORN) in the *Federal Register* extending the system of records entitled “National Mortgage Database Project” to cover NSMO. The second and third revisions of the SORN were published in the *Federal Register* in August 2015 and December 2016 respectively.

After obtaining OMB approval, FHFA modified an existing contract with Experian, which subcontracted the survey administration through a competitive process to Westat, a nationally recognized survey vendor. Fair Credit Reporting Act (FCRA) rules dictate that the survey process must be administered through Experian in order to maintain consumer privacy because it utilizes borrower names and addresses drawn from credit reporting bureau records.⁹

The NMDB team consulted with Experian, Westat, and the Freddie Mac advisory group between December 2013 and February 2014 to finalize the survey questionnaire and supporting materials. The initial survey wave was mailed out in April 2014, and a new wave of the survey has been conducted each quarter since. (See Section 3 for more information about the timeframe for each survey wave.)

In the process of applying for a three-year extension of the OMB control number, FHFA published in the *Federal Register* a 60-day Notice of Submission of Information Collection for Approval from the OMB on September 13, 2016. Two comment letters were received for this notice. Subsequently, on December 28, 2016, FHFA published a 30-day Notice of Submission of Information Collection for Approval from OMB indicating that FHFA had received two comment letters during the 60-day comment period. OMB reviewed the FHFA application and approved the request on April 20, 2017 and extended the collection authority for NSMO through April 30, 2020. As of this writing, FHFA is in the process of applying for an additional three-year extension. FHFA published in the *Federal Register* a 60-day Notice of Submission of Information Collection for Approval from the OMB on December 10, 2019.

⁹ The Fair Credit Reporting Act (FCRA), Public Law No. 91-508, was enacted in 1970 and substantially amended since, to promote accuracy, fairness, and the privacy of personal information assembled by credit reporting agencies (CRAs). The Act's primary protection requires that CRAs follow “reasonable procedures” to protect the confidentiality, accuracy, and relevance of credit information. To do so, the FCRA establishes a framework of requirements for credit report information that include rights of data quality (right to access and correct), data security, use limitations, requirements for data destruction, notice, user participation (consent), and accountability.

3. Detailed Survey Sample Frame

Approximately 6,000 of the closed-end first-lien mortgage loans newly added to NMDB are selected for NSMO following the update of NMDB at the end of each quarter.¹⁰ At present this represents about a 1-in-300 sampling rate from the population of such loans as a whole. Loans are selected at random from mortgages that were newly reported to Experian within a year of origination. Once selected to participate in NSMO, a borrower is ineligible to be selected again.

After the sample is selected, Experian eliminates any potential respondents who: (1) have opted out of previous surveys, (2) are deemed not to have usable addresses or names, or (3) are on a do-not-contact list (a small number). Industry guidance (Metro 2 Industry Standards for Credit Reporting) requires that servicers must supply a billing address for each borrower on a trade line (including mortgages). Experian generally uses these borrower billing addresses as the survey mailing addresses.

Table 1 shows the rules for selecting the borrower(s) and address to which the survey is mailed where there are multiple addresses or borrowers associated with a sample loan. The survey is sent to no more than two borrowers who share a common address.

Number of Borrowers	Same or Different Address	Resulting Survey Recipient
1	Not Applicable	One borrower with Experian’s associated best address
2	Same	Two borrower names with one common best address
2	Different	The one borrower and associated best address with the lowest number of open mortgages
>2	Same	Two borrowers with one common best address that has the highest number of trade lines reported
>2	Different	The one borrower and associated best address with the lowest number of open mortgages

¹⁰ For a fuller description of how loans are selected for NMDB, see NMDB Technical Report 1.

4. Survey Timeline

At the beginning of each quarter, a 1-in-20 sample of mortgage loans newly reported to Experian over the previous quarter is delivered to the NMDB team from Experian. It takes approximately five weeks to identify and combine duplicative records, draw the NSMO sample, process it at Experian, and print the survey materials. At this point, the survey enters the field.

On the first day NSMO is in the field, borrowers of sampled mortgages are sent a cover letter, printed questionnaire, and \$5 cash incentive. The mailing and printed questionnaire details how borrowers can mail back the completed survey or complete the survey online in either English or Spanish using instructions and a unique PIN provided in the questionnaire packet. At first, approximately one third of the overall survey responses were completed online, but that share is approaching 50 percent in recent waves.

At the start of NSMO's second week in the field, borrowers are sent their first reminder letter. If a borrower has not submitted their questionnaire by the middle of NSMO's fifth week in the field, they are sent a second reminder letter, another copy of the printed questionnaire, and an additional \$5 cash incentive. If borrowers still have not replied by the end of NSMO's sixth week in the field, they are sent a third and final reminder letter at the start of NSMO's seventh week in the field. This last letter includes the due date for returning the questionnaire to close the communication loop.

During the first eight weeks of each cycle, Experian maintains a NSMO call center to address any questions by borrowers. This call center also allows borrowers to "opt out" of the survey and future surveys. Both FHFA and CFPB describe the survey on their websites so that borrowers can independently verify the legitimacy of the survey. The agency officials whose signature is on the cover letter (Sandra Thompson at FHFA and Tom Pahl at CFPB) are identified on the websites as senior employees of their respective agencies.

Mail surveys and online responses are accepted and processed until 12 weeks after the mail date, which means that the survey cycle extends about five weeks into the next quarter. After the deadline, responses undergo initial processing by Westat to strip the data of any personally identifiable information such as the names of borrowers or institutions. This takes roughly 25 days, after which the data are delivered to FHFA by Experian.

Once the data arrives at FHFA, it takes approximately eight weeks to complete additional processing of the survey responses, create preliminary sample weights, and assemble a preliminary usable data file. For more information on this process, see Section 7 of this report.

The timeline described above applies to each quarterly data collection and production. Because some loans take longer than six months to be reported to the credit bureaus, a data file fully representative of a calendar year will generally not be available until December of the following year. For example, data on 2019 mortgage originations will only be available towards the end of 2020. As of this writing, the NSMO survey is currently on its 25th wave. Table 2 shows the survey field periods to date. FHFA has received data from Experian up to the 23rd wave as

shown in Table 3 in Section 5. The NMDB team has processed, cleaned and imputed data up to the 21st wave as shown in Tables 4 and 5 in Section 6.

Wave	Survey Field Dates	Calendar Quarter	Surveys Mailed
1	April to June 2014	2014 Quarter 1	15,000
2	June to August 2014	2014 Quarter 2	3,000
3	August to November 2014	2014 Quarter 3	5,992
4	November 2014 to February 2015	2014 Quarter 4	5,795
5	February to May 2015	2015 Quarter 1	5,925
6	May to August 2015	2015 Quarter 2	4,428
7	August to November 2015	2015 Quarter 3	7,352
8	November 2015 to February 2016	2015 Quarter 4	5,913
9	February to May 2016	2016 Quarter 1	5,907
10	May to August 2016	2016 Quarter 2	5,885
11	August to November 2016	2016 Quarter 3	5,904
12	November 2016 to February 2017	2016 Quarter 4	5,919
13	February to May 2017	2017 Quarter 1	5,910
14	May to August 2017	2017 Quarter 2	5,804
15	August to November 2017	2017 Quarter 3	5,809
16	November 2017 to February 2018	2017 Quarter 4	5,707
17	February to May 2018	2018 Quarter 1	5,755
18	April to July 2018	2018 Quarter 2	5,773
19	August to November 2018	2018 Quarter 3	5,759
20	November 2018 to February 2019	2018 Quarter 4	5,770
21	February to May 2019	2019 Quarter 1	5,746
22	May to August 2019	2019 Quarter 2	5,720
23	August to November 2019	2019 Quarter 3	5,737
24	November 2019 to February 2020	2019 Quarter 4	5,676
25	February to May 2020	2020 Quarter 1	5,698
Total			151,884

5. Survey Samples and Returns

As shown in Table 3, NSMO typically samples about 6,000 new mortgage originations each quarter. Over 23 waves for which FHFA has received data from Experian, nearly 31 percent of the surveys mailed to borrowers of sampled mortgages were completed and 65 percent of completed surveys were received by mail. The variation in quarterly sampling methodology and questionnaires are highlighted in this section. Additional details on questionnaire changes are in Appendices B and C.

Wave	Average Sampling Weight	Surveys Mailed	Postal Non-Delivery	Surveys Delivered	Surveys Completed				Opt-Out
					Total	By Mail	Online English	Online Spanish	
1	464.21	15,000	218	14,782	5,793	4,410	1,360	23	169
2	296.14	3,000	37	2,963	1,076	858	214	4	31
3	280.96	5,992	110	5,882	2,073	1,534	524	15	40
4	263.63	5,795	86	5,709	2,020	1,496	514	10	53
5	247.32	5,925	126	5,799	2,089	1,567	520	2	39
6	238.92	4,428	38	4,390	1,489	1,133	353	3	31
7	296.64	7,352	147	7,205	2,494	1,744	744	6	39
8	326.97	5,913	99	5,814	1,899	1,305	587	7	24
9	292.31	5,907	155	5,752	1,824	1,230	584	10	42
10	253.27	5,885	98	5,787	1,765	1,148	607	10	36
11	278.27	5,904	172	5,732	1,733	1,097	627	9	21
12	343.76	5,919	167	5,752	1,778	1,078	687	13	18
13	363.21	5,910	127	5,783	1,885	1,197	675	13	32
14	318.55	5,804	107	5,697	1,681	1,085	588	8	21
15	270.61	5,809	136	5,673	1,537	765	760	12	24
16	305.24	5,707	164	5,543	1,507	757	738	12	26
17	304.31	5,755	112	5,643	1,647	879	762	6	45
18	262.93	5,773	163	5,610	1,536	812	711	13	32
19	266.84	5,759	242	5,517	1,464	760	695	9	29
20	284.5	5,770	206	5,564	1,396	762	627	7	11
21	266.12	5,746	251	5,495	1,511	777	719	15	17
22	213.35	5,720	219	5,501	1,405	757	630	18	29
23	262.92	5,737	235	5,502	1,236	647	579	10	29
Total	303.25	140,510	3415	137,095	42,838	27,798	14,805	235	838
Percent of Mailed Surveys		100.0%	2.4%	97.6%	30.5%	19.8%	10.5%	0.2%	0.6%
Percent of Completed Surveys					100.0%	64.9%	34.6%	0.5%	NA

In 2014, the first year of the survey, a modified version was conducted for the first three waves in April, June, and September. Wave 1 (April) included a sample of 15,000 mortgages. This

was a catch-up period to cover cases originated in 2013 and newly reported to Experian in the archives for June, September and December 2013.

Wave 2 (June) included 3,000 surveys and was for mortgages that were originated in 2013 and newly reported to Experian between January and March 2014. For Wave 3 (August), Westat mailed out 6,000 surveys representing mortgages that were originated in 2013 and reported to Experian between March and June 2014 within a year of origination as well as any mortgages originated in 2014 and reported to Experian between January and June 2014.

The fourth wave, mailed in November 2014, was the first sample that is comparable to subsequent surveys. It was comprised of any mortgage newly reported to Experian in the most recent quarter (July to September 2014) that was reported within a year of origination. It is also the first wave where Experian eliminated potential sample cases deemed to not have legitimate addresses or names prior to mailing. Other than slight changes to two questions, the questionnaire was unchanged from prior waves. This same questionnaire was used for Wave 5.

Initial analysis of data from the first four waves of the survey prompted major revisions to the questionnaire around this time. Examination of responses suggested questions that respondents may have frequently misunderstood or misinterpreted some of the questions.¹¹ This issue was addressed in changes made to the questionnaire for parts of Wave 6 (details below) and all of Wave 7. Users should be aware of these interpretation inconsistencies when using data from the earlier waves.

These revisions were anticipated, so Wave 6 was broken into two parts. Mortgages that were originated in 2014 were mailed on time, following the established schedule and using the original questionnaire; mortgages originated in 2015 were held back to be mailed with the new questionnaire alongside the usual Wave 7 sample.

Wave 7 consisted of three samples drawn independently. The first were those 1,236 respondents selected for Wave 6 with loans originated in 2015. The second were 4,981 respondents with mortgages newly reported to Experian between April and June 2015 (the normal quarterly sample frame). Finally, a special sample of 1,142 borrowers residing in “remote rural” counties as defined using a USDA criterion with 2014 loan originations reporting to Experian within a year of origination was selected.¹² Each subsample was assigned a different sample weight.

All subsequent waves of the survey sent out only the regular sample mailed on-schedule. Minor revisions occurred roughly twice a year and can be tracked in the codebook in Appendix C. One prevailing trend during these waves was a slow but steady decline in the response rate, a problem facing many other surveys like NSMO during this period.

¹¹ A list of retired survey questions is provided in Appendix B. Changes to the language of the questions across waves are provided in Appendix C.

¹² See <http://www.ers.usda.gov/data-products/rural-urban-continuum-codes/documentation.aspx> for the USDA definition of “rural” used for this sample.

During waves 22, 23, 24, and 25, experiments with survey methodology were conducted to address the issue of declining response rate. In wave 22, one half of the usual 6,000 borrowers were randomly selected to receive a \$10 cash incentive with the first mailing instead of the \$5 incentive the other half received. In waves 23 and 24, one half of the borrowers received revised cover and reminder letters while the other half received the originals. (Edits were made to the revised letters between waves 23 and 24 to boost response rates.) In wave 25, all borrowers were sent an initial incentive of \$10. In terms of the second incentive, one random half of the non-respondents are being sent the normal \$5 cash incentive as in previous waves and the other random half are being sent a letter informing them that they will be sent a \$20 incentive upon completion of the survey. Data collected during these experiments will be used to make decisions about the NSMO methodology in 2020.

6. Usable Survey Responses

Returned questionnaires and online responses were evaluated to determine the set of usable responses. Tables 4 summarizes the results of this analysis through the 21 waves which have been completely processed and illustrates the four criteria for rejecting a completed questionnaire.

Survey Wave	Returned	Duplicate or Ineligible	Answered No to Q1	Did Not Finish Survey	Wrong Loan	Usable	Weighted Usable*
1	5,793	84	738	127	216	4,628	6,871,209
2	1,076	15	84	16	38	923	875,467
3	2,073	37	108	36	59	1,833	1,659,752
4	2,020	164	88	46	64	1,658	1,395,466
5	2,089	37	81	46	62	1,863	1,443,963
6	1,489	116	69	29	50	1,225	991,516
7	2,494	65	144	78	98	2,109	2,108,874
8	1,899	42	73	28	59	1,697	1,900,299
9	1,824	38	69	27	37	1,653	1,701,989
10	1,765	59	84	40	58	1,524	1,432,246
11	1,733	41	92	38	38	1,524	1,602,998
12	1,778	58	102	49	50	1,519	1,995,025
13	1,885	48	103	52	54	1,628	2,107,377
14	1,681	50	66	52	44	1,469	1,817,181
15	1,537	30	140	78	33	1,256	1,544,244
16	1,507	27	116	70	26	1,268	1,713,007
17	1,647	25	127	64	34	1,397	1,723,003
18	1,536	18	117	60	34	1,307	1,500,016
19	1,464	23	108	61	31	1,241	1,512,449
20	1,396	22	116	66	25	1,167	1,617,383
21	1,511	29	152	82	23	1,225	1,499,320
Total	40,197	1,028	2,777	1,145	1,133	34,114	39,012,784
Percent of Mailed Surveys	31.1%	0.8%	2.2%	0.9%	0.9%	26.4%	NA

* The weighted usable total excludes the remote rural sample in wave 7.

The first category of unusable surveys comes from respondents whose sample loans were ultimately removed from NMDB after the survey had been executed either because they were deemed to have duplicate trade lines and to not meet the criteria for remaining in NMDB or where the sample loan was determined to be a second and not a first mortgage lien. In some

instances, the survey response itself led to the removal, as margin notes or comments indicated that the loan was a second lien. This was a particular problem in Wave 4 where a significant number of respondents were removed from NMDB for reasons unrelated to the survey.

The second criterion is a “no” response to the first question (Q1). Q1 is used as a screener question to confirm that the survey respondent took out a mortgage during the reporting period (which Experian records suggest that they did). In the first wave, a surprisingly high number of respondents (738) said that they had not taken out a mortgage. An analysis of these responses suggests that many people did not consider a refinance a “new” mortgage. Consequently, in Wave 2, the wording of Q1 was changed to add the phrase “including any mortgage refinances”. With this change, the share of “no” responses to Q1 decreased from 13 percent to 8 percent.

The next exclusion criterion eliminates breakoffs, defined as those for which the respondent did not answer almost all questions from the middle of the survey through the end or answered less than 50 percent of the questions.

The last criterion for exclusion was for respondents who provided information on the wrong loan. The sampling frame was tied to a particular loan associated with the borrower. However, the questionnaire did not refer explicitly to that loan. Instead, respondents who had taken out multiple loans during the reference period were asked to report on the “most recent.” In some instances, this was not the sample loan. This was a particular problem in Wave 1 which, as a “catch up” survey, had a relatively long reference period. Also, some respondents who have refinanced their mortgage report on the original home purchase mortgage rather than the refinance. Finally, in a few instances it appears that the survey went to the wrong person, with answers bearing no resemblance to the sample loan features as characterized by Experian records. In each of these circumstances the survey response was removed from the data set used for analysis.

Given this, the rate of usable responses in each wave is lower than the survey response rates reported earlier. Overall, for the first 21 waves 34,114 usable responses were obtained from 40,197 returned surveys. This resulted in a usable response rate of 26.4% out of the mailed-out questionnaires. The distribution of the usable surveys by mortgage origination year is shown in Table 5.

Survey Wave	Usable	2013	2014	2015	2016	2017	2018	2014 Remote Rural
1	4,628	4,628	0	0	0	0	0	0
2	923	923	0	0	0	0	0	0
3	1,833	512	1,321	0	0	0	0	0
4	1,658	11	1,647	0	0	0	0	0
5	1,863	5	1,858	0	0	0	0	0
6	1,225	0	1,225	0	0	0	0	0
7	2,109	0	192	1,622	0	0	0	295
8	1,697	0	12	1,685	0	0	0	0
9	1,653	0	1	1,652	0	0	0	0
10	1,524	0	0	1,056	468	0	0	0
11	1,524	0	0	155	1,369	0	0	0
12	1,519	0	0	12	1,507	0	0	0
13	1,628	0	0	2	1,626	0	0	0
14	1,469	0	0	0	1,119	350	0	0
15	1,256	0	0	0	179	1,077	0	0
16	1,268	0	0	0	7	1,261	0	0
17	1,397	0	0	0	5	1,392	0	0
18	1,307	0	0	0	0	945	362	0
19	1,241	0	0	0	0	130	1,111	0
20	1,167	0	0	0	0	5	1,162	0
21	1,225	0	0	0	0	3	1,222	0
Total	34,114	6,079	6,256	6,184	6,280	5,163	3,857	295
Percent of Mailed Surveys	26.4%	4.7%	4.8%	4.8%	4.9%	4.0%	3.0%	0.2%

7. Cleaning, Editing, and Imputing Responses

One advantage that NSMO has over other surveys is the availability of credit and administrative data, much of which appears to be quite reliable. These data can be used to assist in the editing and imputation process. Four primary sources of such data are available in processing NSMO:

- (1) credit data from Experian on sample loans;
- (2) data collected by Experian from other data sources on the survey respondents, including loan servicers and data companies;
- (3) information from matches to administrative loan files (Fannie Mae, Freddie Mac, Federal Housing Administration (FHA), Department of Veteran Affairs (VA), Rural Housing Services (RHS), and Federal Home Loan Banks (FHLB)); and
- (4) information for loans that could be matched to Home Mortgage Disclosure Act (HMDA) files (HMDA data through calendar year 2018 are available as of this writing).¹³

The credit and administrative data are used to determine which borrower in the Experian data corresponded to the respondent (and spouse/partner of the respondent) in the survey and to infer the loan the respondent had in mind when answering the survey. These data are also useful in determining if respondents correctly identified their loan as a home purchase loan or a refinance.

The survey responses are first subjected to thorough editing and review after being delivered to FHFA. This initial phase consists of standard editing—correcting numbers reported in the wrong units, changing answers in responses based on margin notes and comments, assigning responses for questions with open-ended “other” responses, dealing with multiple responses to a question that calls for only one response, and deciding how to handle situations where respondents followed the wrong skip pattern.

Tabulations of the raw unweighted—but edited—responses to all the questions in the survey are presented in the tabulations cited in Appendix C. Data are presented for usable observations in Waves 1 through 21 with loan originations between 2013 and 2017. These observations are those included in the public use data file.

After editing and cleaning the survey response data, missing responses are imputed using answers to related questions or statistical models estimated based on credit and administrative data and answers to other questions in the survey. Imputations are designed to replicate the level of inherent inconsistencies between related variables in the actual (non-imputed) responses by the respondents. Actual responses are generally not changed (except in cases where they are

¹³ Merges with most administrative files are conducted behind a firewall at Experian using borrower name, address, date of birth and Social Security number to ensure the highest quality match accuracy (neither FHFA nor CFPB staff ever receive such information). However, merging of the NMDB data with the HMDA data and the FHLB loan files have to rely on variables common to both datasets, including the original loan balance, the opening date of the mortgage and the general location of the property (census tract or state/county) but not property address or borrower name. Unfortunately, mortgage servicers report the billing address of the mortgage borrowers to Experian, but this is not necessarily the property address, particularly for mortgages on non-owner-occupied properties. Those, when converted to a census tract for matching it may be incorrect. Thus, HMDA merges are less accurate than those employing directly identifying information such as name and Social Security number because the latter are less reliant on address.

edited as described above). In order to preserve the original responses, the raw responses are retained with missing responses coded as such. A parallel set of variables (“X” variables) are constructed where all missing responses are imputed, and necessary responses are edited as described above. Each instance in which an X variable differs from original responses is recorded by a shadow variable (“J” variables) that indicates the method and reason why the change was made. Missing responses typically total about 3 to 5 percent of responses for most questions and only in a few instances were more than 10 percent. The X variables are not created when a directly comparable credit or administrative variable is available for all respondents (*e.g.*, loan amount, loan payment, number of co-signers) as comparable credit or administrative variables can be used in lieu of survey responses in analysis. Instead, Z variables are created in their place to indicate whether the respondents answered the question.

The initial set of imputations are based on inferences drawn from patterns of response. Patterns of missing responses sometimes provides an indication of how the respondent would have answered if they had taken the time to fill out all answers of a group. For example, one question reads, “how important were each of the following...” and provides choices of important or not important. Some respondents only mark “important” for the choices important to them. Other respondents might only mark choices that are not important. When all answers are in a group with only one side answered, the other answers are imputed as the opposite choice. For example, when a respondent only marks choices that are important, the missing questions were imputed as not important.

The survey skips do not always work for every respondent and the lead-in question gets missed by some respondents. The answers to the lead-in question were often imputed based on actual answers to the follow-up questions. For example, one question reads, “how many different lenders/mortgage brokers did you end up applying to” and provides options for one to five. When a respondent chooses one, they skip the next question about reasons they applied to more than one. If the lead-in question was left blank, any yes answer to the follow-up is considered a reason to impute that they applied to more than one lender. All “no” answers to the follow-up questions means that they probably only applied to one lender. When both a lead-in and follow-up question get skipped by the respondent, both are imputed with one of the imputation models.

Once these inferential imputations are taken care of, statistical models are used to impute the remaining missing answers. The most common type of question in NSMO provides a simple yes or no answer. A binomial logistic model provides an estimated probability of a yes answer. For some questions, such as the number of lenders or brokers the respondent seriously considered, the answers are in a logical order. For these types of questions, an ordered logistic model is used to determine the probability of each answer. For other questions the order does not matter, and the answer choices are not related to the previous choice. For these questions, a multinomial logistic model is used, and the reference group is selected to be the most common answer. Again, the model produces a probability of each answer response. A random number is drawn with a different seed for every question and it is then compared to the probability of each response level. When the random number falls below the cumulative probability of an answer, that answer is used as the imputed response. This method injects some randomness to the imputed answers, but the goal is to provide a distribution of imputed answers that mimics the distribution of the answers where no imputation was necessary.

The dependent variable (y_i) in all the models used is a value for the missing answer. The vector of characteristics (x_i) can include information from the credit files or answers to survey questions. Key demographic variables (age, gender, education, ethnicity, and income) are imputed first. For these variables, high quality administrative data are generally available and can be used directly to impute a value for the X variable. For example, lender-reported information provides high quality data on age. Administrative data also provide reliable information on race, income, and interest rate. HMDA data also provide reliable information on race, income, and gender.

The initial statistical imputation models first use all the respondents who provided answers using a standard set of predictors to provide an initial imputation. The models use age, loan amount, credit score, loan type, education and income level. Once the initial imputation values are established, the models are enhanced for any predictor that provides a good fit to the models and these models use actual and imputed values from all respondents. The missing values are imputed statistically using an iterative process where each subsequent run of the model uses the actual responses and the imputed responses from the previous run. Iterating in this way ensures that correlations among the imputed values will better reflect correlations among observations where responses were available.

The regression runs always start with key variables first. As with the initial imputations, the first variables imputed are age, loan amount, credit score, loan type, education and income. The next level covered by the models imputes marital status, race, and ethnicity. The process then moves on to other questions and often follows the order of the survey instrument for less consequential questions. Lead-in questions are always imputed before the follow-up question to keep the follow-up imputations consistent with the lead-in question.

As the recursive models run, the coefficient of each predictor variable in each model is tracked and compared with values from the previous runs. The recursive runs are only stopped when the coefficients have settled down with minimal changes in the last few runs. This ensures that the recursive effect on each model has fed into all the predictions of imputed values and stabilized.

To find the best model for each imputation, the last recursive run is selected, and the actual response is subtracted from the predicted value of the response. The difference represents the error term or the portion of the probability of a response that was not explained by the predictive variables. A large matrix of error terms is constructed, and the values are tested for correlation. Error terms with correlation coefficient of over 0.30 get explored as possible indicators of new predictor variables. Each year, new predictors are placed into the recursive model and the results are tested to see if the model improves. With improved models, the recursive runs are restarted until all the beta coefficients settle down again.

The final imputations rely on a further set of quality control checks. Conditional correlation tables of model residuals are constructed to identify any additional significant explanatory variables which may have been left out of individual equations. Further, imputed values of similar related variables are sometimes adjusted to ensure that the covariances among the imputed answers mirror that of the non-imputed responses.

8. Sample Non-Response Weights

There are several ways calculations based on the NSMO raw survey responses may not be representative of the population as a whole. First, as shown earlier in the Table 2, the survey waves do not have the same sampling rates. Second, only about one-third of the sampled borrowers completed the survey. Commonly, in survey sampling, some individuals chosen for the sample are unwilling or unable to participate in the survey. Non-response bias is the bias that results when respondents differ systematically from non-respondents. A common method for mitigating possible non-response bias is to use weights to align the characteristics of respondents and the population more closely. This is known as “non-response weighting.” Such weights are generally calculated from statistical models. Specifically, the non-response weights in NSMO are designed to “blow up” the usable sample (column 7 in Table 3) to the total surveys mailed (column 3 in Table 2) less duplicate and ineligible loans taken out of NMDB (column 3 in Table 3 and a comparable proportion of non-returned surveys not shown in the table).

Often, little is known about survey non-responders, so the statistical models used to construct non-response weights are quite simplistic. Compared with many other surveys, however, NSMO has extensive credit and administrative data on both responding and non-responding borrowers that can be used to estimate non-response weights.

Sample non-response weights are estimated with logistic models separately for each sample wave and within a wave for loans with a single borrower versus those with multiple borrowers. The models estimate the probability of getting a usable response for each wave of the survey. The predictive equations have had pseudo-R-square values ranging from 0.0467 to 0.1654. The models for joint borrowers do better than those for single borrower. The largest pseudo-R-square values were for models estimated on data from Wave 20 joint borrowers. Key predictive variables included are loan amount, borrower age, the income relied upon for underwriting, the combined loan-to-value ratio, an indicator of whether it was a home purchase or refinance loan, and the interest rate spread over the prevailing prime interest rate at origination. The models also control for credit score, for geography using Census Divisions, and for demographic characteristics on family composition, race, ethnicity, gender, and educational attainment.

The model’s predicted probabilities of response were placed into 5 equal groups of 20 percent each. The average of the response rates from each of these five groups was used to calculate a response weight as the inverse of these five average rates. Once within-wave sample non-response weights are estimated, they are multiplied by the wave sample weight to provide an overall weight.

Table 6 demonstrates the effect of differential sampling weights for the first 21 waves. Column one shows the distribution among various demographic and loan categories of the raw survey responses. Column two provides the distribution using estimated overall weights. Finally, column three shows the average overall weight for each category.

Table 6. Overall Weights, 2013 - 2017 Originations (Waves 1-21)			
	Unweighted Percentage	Weighted Percentage	Average Weight
Loan Category			
Purchase	48.4%	49.6%	1,169
Refinance	51.6%	50.4%	1,112
	100.0%	100.0%	
Loan Size			
Less than \$50,000	2.6%	2.6%	1,106
\$50,000 to \$99,999	14.2%	14.2%	1,139
\$100,000 to \$149,999	20.2%	20.4%	1,147
\$150,000 to \$199,999	17.6%	17.7%	1,142
\$200,000 to \$249,999	13.1%	12.9%	1,123
\$250,000 to \$299,999	9.8%	9.5%	1,112
\$300,000 to \$349,999	6.6%	6.6%	1,128
\$350,000 to \$399,999	4.9%	4.8%	1,115
\$400,000 or more	10.9%	11.4%	1,197
	100.0%	100.0%	
Mortgage Term to Maturity			
Less than 15 Years	4.2%	3.7%	1,004
15 Years	16.6%	15.3%	1,050
Between 15 and 30 Years	6.4%	6.4%	1,043
30 Years or More	72.8%	74.6%	1,168
	100.0%	100.0%	
Loan to Value (LTV) Ratio			
Less than 75%	37.9%	35.1%	1,055
75% to 79%	11.4%	11.1%	1,109
80%	9.7%	9.3%	1,095
81% to 89%	10.0%	10.1%	1,155
90% or More	31.0%	34.4%	1,264
	100.0%	100.0%	
Respondent Credit Score			
Lower than 620	4.1%	5.8%	1,592
620 to 639	3.3%	4.3%	1,494
640 to 659	5.0%	6.2%	1,431
660 to 679	5.7%	6.6%	1,323
680 to 699	6.4%	7.2%	1,278
700 to 719	7.5%	8.2%	1,246
720 to 739	9.4%	10.0%	1,209
740 or Higher	58.6%	51.8%	1,006
	100.0%	100.0%	

9. Sampling Error

Errors in survey values can stem from several sources. Sampling error—the variability expected in estimates based on a sample instead of a census—is often an important source of error. For NSMO, estimates of statistics that apply to most mortgages may be measured with reasonable precision, but sampling variability will generally be greater for estimates for less-common types of loans or mortgage features.

Other errors occur because borrowers who respond to the survey or to a particular question are not random. Imputation and sample non-response weights correct for some of this error but not all. Other errors occur when respondents interpret a question differently than intended by the survey or other respondents. As noted above, for some questions this problem was serious enough to call into question the use of the variable.

Analyses of these data with software that assumes the data are from a simple random sample will under-estimate the standard errors (statistical precision) of the estimates. Users are encouraged to use analytic procedures (so-called “survey” procedures in most major statistical analysis packages) that take into account the effect of the differential sampling and non-response adjustment weights on the estimates.

10. Security and Privacy Measures

The most important way NMDB protects its sampled borrowers is by keeping all personally identifiable information (PII) behind Experian's firewalls. No Social Security numbers, names, addresses, or institution names ever arrive at FHFA.

The use of a sample in the full NMDB also substantially reduces the privacy risk associated with any data collection. By contrast, a universal registry can present challenges for privacy since it is known that a particular loan must be in the dataset. However, for a 1-in-20 sample, the odds are 95 out of 100 that a particular loan is not in the database. In addition, the sample used is large enough to support almost all types of statistically valid analyses but small enough to manage logistically, thus dramatically reducing both contract and computing costs.

All survey responses for NSMO received by Westat are purged of any information related to the name of the borrower, address of the borrower, or name of any financial institution before leaving Westat. This is done to maintain the de-identified, confidential nature of the data and to ensure that the survey responses cannot be connected to a name or address. Borrowers are informed that their participation in the survey is voluntary and that their responses will be kept strictly confidential.

As a final security measure, NMDB and the full NSMO file are accessible only to federal employees, and even then, only after those employees have signed an agreement not to use the data to identify any individuals. Users of the data are also prohibited from removing any data from our secure servers that could possibly be used to identify individuals.

Data released to the public undergoes even stricter scrutiny than data available only to federal employees. More information about measures taken to protect publicly available data can be found in the next section of this report.

11. Public Use File

On November 8, 2018, FHFA and CFPB released the first NSMO public use file based on the first 15 quarterly waves of the survey. On February 20, 2020, an update was released based on waves 16 through 21. This updated file contains data for 29,962 sample mortgages originated from 2013 through 2017 based on 5,000 to 6,000 usable surveys per year.¹⁴

To ensure that the public use file adequately protects privacy, FHFA entered into an agreement with the U.S. Census Bureau to conduct an independent third-party assessment of the proposed public use file to determine whether personally identifiable information (PII) can be re-identified from the NSMO public use data set by matching against other publicly available data sets. On October 5, 2018, the Census Bureau submitted a memorandum to FHFA stating that the NSMO public use data and the methods used to protect privacy in that data met the Census Bureau's privacy standard for public release. The same method was used for the current public data release.

The public use file excludes virtually all geographic variables, and this exclusion is the primary method used to protect privacy. Specifically, the public use file excludes geographical information such as Census region, Census division, state, county, city, zip code, and Census tract. It only includes a flag indicating whether the property associated with the mortgage was in a metropolitan area tract designated as low-to-moderate income (LMI) for Community Reinvestment Act (CRA) purposes, non-CRA-LMI metropolitan tract, or in a non-metropolitan area.

The public use file contains around 300 survey data elements on mortgage shopping behavior, mortgage closing experience as well as borrower perception, opinion, and outlook about their mortgages. It also contains over 100 supplementary data elements about the sample mortgages and borrowers, such as the loan amount (in \$50,000 categories), loan-to-value ratio, debt-to-income ratio, origination and quarterly VantageScore[®] 3.0 credit scores of borrowers, and quarterly performance status of the mortgages through September 28, 2019.

¹⁴ The NSMO public use file does not include 295 "remote rural" special sample loans originated in 2014 because they were sampled differently.

Appendix A. NSMO Letters and Questionnaire, Waves 19 to 22

This appendix shows the National Survey of Mortgage Originations (NSMO) cover letters and survey questionnaire (or instrument) that was mailed to the borrowers associated with the sampled mortgages during Waves 19 through 22. All the questionnaires used in Waves 1 through 24 are available on www.fhfa.gov/nsmodata.



Para leer esta carta en español por favor vea el dorso.

1234567 101
<FIRST NAME1> <LAST NAME1>
<FIRST NAME2> <LAST NAME2>
<ADDRESS>
<CITY> <STATE> <ZIP>

February 4, 2019

We are writing to ask for your help with an important national survey to learn about borrowers' experiences in getting a mortgage. Whether you took out a **new mortgage or refinanced an existing loan**, we want to hear about your experience. Learning directly from borrowers will help us improve lending practices and the mortgage process for future borrowers.

Our agencies, the Federal Housing Finance Agency and the Consumer Financial Protection Bureau, are working together on behalf of all consumers to ensure access to consumer financial products and services and that these markets are fair, transparent, and competitive.

We want to make it as easy as possible for you to answer this survey. You can complete the paper copy* enclosed, or complete the survey online. The online version may be easier to complete because it skips questions that do not apply to you. Online responses also are processed more quickly making it less likely that you will receive follow-up reminders to complete this survey.

To complete the survey online:

GO TO www.NSMOSurvey.com

LOG IN with your unique survey PIN #: <123 456 789>

The survey will take **about 20 minutes** to complete and we enclosed a small token of appreciation for your time and help. If you have any questions, please call toll free **1-855-339-7877** or visit our websites: **www.fhfa.gov/nsmo** or **www.consumerfinance.gov**.

Respectfully,

A handwritten signature in black ink, appearing to read 'Sandra Thompson'.

Sandra Thompson
Deputy Director of Housing, Mission, and Goals
Federal Housing Finance Agency

A handwritten signature in black ink, appearing to read 'David M. Silberman'.

David M. Silberman
Associate Director for Research, Markets, and Regulations
Consumer Financial Protection Bureau

* This survey is voluntary. The code numbers on the survey are there to aid in processing and keep track of returned surveys. No names or other identifying information is ever included in the data. To ensure your survey is returned to us, please use the postage-paid return envelope enclosed. You are not asked for any identifying information, so please do not identify yourself in any way on the envelope or questionnaire.



To read this letter in English, please turn over to the other side.

1234567 101
 <FIRST NAME1> <LAST NAME1>
 <FIRST NAME2> <LAST NAME2>
 <ADDRESS>
 <CITY> <STATE> <ZIP>

4 de febrero de 2019

Estimado Señor, Señora, o Señorita:

Le escribimos de parte de la Agencia Federal del Financiamiento de la Vivienda (o sea FHFA, por sus siglas en inglés) y la Oficina de Protección al Consumidor (CFPB, por sus siglas en inglés) para solicitar su cooperación con una encuesta nacional sobre la experiencia de los consumidores al obtener una hipoteca. Las dos agencias trabajamos en conjunto para garantizar que los consumidores tengan acceso equitativo, transparente, y competitivo a productos y servicios financieros.

Si usted obtuvo una hipoteca o refinanció una hipoteca anteriormente, nos interesa saber como estuvo su experiencia. Su participación nos ayudará a entender de manera más directa cuales son las prácticas del préstamo y los procesos hipotecarios. Esta información nos ayudará a mejorar las experiencias de otros consumidores.

Por lo tanto, para participar en esta encuesta lo puede hacer en la manera que le resulte lo más fácil y conveniente. Puede llenar las preguntas de la encuesta por escrito en el cuestionario* que aquí se adjunta o puede completar una encuesta electrónica por internet. Quizá sea más fácil por internet ya que en forma electrónica usted no tendrá que contestar preguntas que no le correspondan a su situación. Además, la información electrónica se procesa rápidamente y, por lo tanto, será menos probable que usted reciba recordatorios para completar la encuesta. De cualquier manera le agradecemos su participación.

Para completar la encuesta por internet
VAYA a www.NSMOSurvey.com
INICIE la sesión ingresando su número único (PIN): <123 456 789>

Completar la encuesta le tomará alrededor **de 20 minutos**. Adjunto a esta correspondencia hay una pequeña muestra de nuestro agradecimiento por el tiempo y ayuda que nos proporciona. Si tiene preguntas por favor no dude en llamar a nuestra línea directa y gratuita: **1-855-339-7877** o visítenos en nuestras páginas web **www.fhfa.gov/nsmo** o **www.consumerfinance.gov**.

Atentamente,

Sandra Thompson
 Directora, Adjunta para la Vivienda, Misión y Metas
 La Agencia Federal de Financiamiento de la Vivienda

David M. Silberman
 Director Asociado de Investigación, Mercados, y Regulación
 Oficina de Protección al Consumidor

*Su participación en esta encuesta es voluntaria. Los códigos numéricos en la encuesta únicamente se utilizan para el proceso de las encuestas. Su información, ya sea datos con su nombre o información personal, es completamente confidencial. En mandar su respuesta, por favor use el sobre adjunto. Las estampillas postales ya están pagadas. Su respuesta es anonimada. Por favor no escriba su nombre en el sobre o el cuestionario.



Para leer esta carta en español por favor vea el dorso.

1234567 101
 <FIRST NAME1> <LAST NAME1>
 <FIRST NAME2> <LAST NAME2>
 <ADDRESS>
 <CITY> <STATE> <ZIP>

February 11, 2019

Last week we sent you a request for help with a study we are conducting to better understand the experiences people have when obtaining a home mortgage. Whether you took out a **new mortgage or refinanced an existing loan**, your experience is important to us.


If you have already responded, we thank you for your help. If you have not yet had time to respond, we hope that you will do so soon.


If you no longer have the paper copy, you can complete the survey online. The online version may be easier because it skips questions that do not apply to you. Online responses also are processed more quickly making it less likely that you will receive follow-up reminders to complete this survey.

To complete the survey online:
 GO TO www.NSMOSurvey.com
 LOG IN with your unique survey PIN #: <123 456 789>

The survey should take **about 20 minutes** to complete. If you have any questions, please call toll free **1-855-339-7877** or visit one of our websites: www.fhfa.gov/nsmo or www.consumerfinance.gov.

We look forward to receiving your questionnaire.


 Sandra Thompson
 Deputy Director of Housing, Mission, and Goals
 Federal Housing Finance Agency


 David M. Silberman
 Associate Director for Research, Markets, and Regulations
 Consumer Financial Protection Bureau



To read this letter in English, please turn over to the other side.

1234567 101
 <FIRST NAME1> <LAST NAME1>
 <FIRST NAME2> <LAST NAME2>
 <ADDRESS>
 <CITY> <STATE> <ZIP>

11 de febrero de 2019

Estimado Señor, Señora, o Señorita:

La semana pasada, le enviamos una carta solicitando su participación en una encuesta relacionada a un estudio que estamos realizando. La encuesta nos ayudará a lograr un mejor entendimiento sobre las experiencias de los consumidores al obtener o refinanciar una hipoteca. Su participación en la encuesta es importante para nuestro estudio.

Si ya ha contestado y enviado su respuesta, le agradecemos su asistencia. Si no ha tenido tiempo para responder a la encuesta, le agradeceríamos si lo pudiera hacer lo más pronto posible.

Si ya no tiene la encuesta en forma impresa, puede completarla en forma electrónica por el internet. Las respuestas por internet se procesan con mayor rapidez, y, por lo tanto, será menos probable que Ud. reciba recordatorios para completar la encuesta. Al igual, por forma electrónica, Ud. no tendrá que contestar preguntas que no le correspondan a su situación.

De cualquiera forma le agradecemos su participación.

Para completar la encuesta por internet
VAYA a www.NSMOSurvey.com
INICIE la sesión ingresando su número único (PIN): <123 456 789>

Completar la encuesta tardará **unos 20 minutos**. Si tiene cualquier pregunta, favor de llamarnos a nuestra línea directa y gratuita al **1-855-339-7877** o visite una de nuestras páginas Web (en la red) al **www.fhfa.gov/nsmo** o **www.consumerfinance.gov**.

Gracias de antemano por considerar esta solicitud.

Atentamente,

Sandra Thompson
 Directora, Adjunta para la Vivienda, Misión y Metas
 La Agencia Federal de Financiamiento de la Vivienda

David M. Silberman
 Director Asociado de Investigación, Mercados, y Regulación
 Oficina de Protección al Consumidor



Para leer esta carta en español por favor vea el dorso.

1234567 101
 <FIRST NAME1> <LAST NAME1>
 <FIRST NAME2> <LAST NAME2>
 <ADDRESS>
 <CITY> <STATE> <ZIP>

March 7, 2019

A few weeks ago, we wrote to ask for your help with a study we are conducting to better understand the experiences of consumers taking out new mortgages. Whether you took out a **new mortgage or refinanced an existing mortgage**, your experience is important to us.

We are writing to you again because of the importance of this study. Please share your experiences and any problems you may have encountered in obtaining your mortgage.

Enclosed is another questionnaire* and envelope for your convenience and a small token of appreciation for your time and help.

The online version may be easier to complete because it skips questions that do not apply to you. Online responses also are processed more quickly making it less likely that you will receive follow-up reminders to complete this survey.

To complete the survey online:
GO TO www.NSMOSurvey.com
LOG IN with your unique survey PIN #: <123 456 789>

The survey should take **about 20 minutes** to complete. If you have any questions, please call toll free **1-855-339-7877** or visit one of our websites: **www.fhfa.gov/nsmo** or **www.consumerfinance.gov**.

Thank you in advance for considering our request. We look forward to receiving your questionnaire.

Sandra Thompson
 Deputy Director of Housing, Mission, and Goals
 Federal Housing Finance Agency

David M. Silberman
 Associate Director for Research, Markets, and Regulations
 Consumer Financial Protection Bureau

* This survey is voluntary. The code numbers on the survey are there to aid in processing and keep track of returned surveys. No names or other identifying information is ever included in the data. To ensure your survey is returned to us, please use the postage-paid return envelope enclosed. You are not asked for any identifying information, so please do not identify yourself in any way on the envelope or questionnaire.



To read this letter in English, please turn over to the other side.

1234567 101
 <FIRST NAME1> <LAST NAME1>
 <FIRST NAME2> <LAST NAME2>
 <ADDRESS>
 <CITY> <STATE> <ZIP>

7 de marzo de 2019

Estimado Señor, Señora, o Señorita:

Hace unas semanas le enviamos una carta solicitando su participación en una encuesta relacionada a un estudio que estamos llevando a cabo. Esta encuesta nos ayudará a lograr un mejor entendimiento sobre las experiencias de los consumidores al obtener o refinanciar una hipoteca.

Le escribimos nuevamente para dar hincapié a la importancia de su participación en el estudio. Por favor comparta sus experiencias y cualquier problema o reto que enfrentó al obtener su hipoteca.

Para su conveniencia adjuntando está una copia del cuestionario* original con un sobre de envió. Adjunto también está una pequeña muestra de nuestro agradecimiento por su tiempo y ayuda.

Quizá completar la encuesta por internet le resulte más fácil, ya que en forma electrónica usted no tendrá que contestar preguntas que no le correspondan a su situación. Además, la información electrónica se procesa con mayor rapidez y, por lo tanto, será menos probable que Ud. reciba recordatorios para completar la encuesta. De cualquier forma le agradecemos su participación.

Para completar la encuesta por internet
VAYA a www.NSMOSurvey.com
INICIE la sesión ingresando su número único (PIN): <123 456 789>

Completar la encuesta tardará **unos 20 minutos**. Si tiene cualquier pregunta, favor de llamarnos a nuestra línea directa y gratuita al 1-855-339-7877 o visite una de nuestras páginas Web (en la red) al www.fhfa.gov/nsmo o www.consumerfinance.gov.

Muchas gracias por su consideración. Estaremos esperando su respuesta.

Atentamente,

Sandra Thompson
 Directora, Adjunta para la Vivienda, Misión y Metas
 La Agencia Federal de Financiamiento de la Vivienda

David M. Silberman
 Director Asociado de Investigación, Mercados, y Regulación
 Oficina de Protección al Consumidor

*Su participación en esta encuesta es voluntaria. Los códigos numéricos en la encuesta únicamente se utilizan para el proceso de las encuestas. Su información, ya sea datos con su nombre o información personal, es completamente confidencial. En mandar su respuesta, por favor use el sobre adjunto. Las estampillas postales ya están pagadas. Su respuesta es anonimada. Por favor no escriba su nombre en el sobre o el cuestionario.



Para leer esta carta en español por favor vea el dorso.

1234567 101
 <FIRST NAME1> <LAST NAME1>
 <FIRST NAME2> <LAST NAME2>
 <ADDRESS>
 <CITY> <STATE> <ZIP>

March 18, 2019

The research study about which we first wrote to you in February will be drawing to a close this month. This study is critical to better understand the factors that affect the home mortgage market.

In two weeks we will begin analysis of all of the responses we have received. The results from this study are particularly important in helping to make housing affordable and achieving stability in the mortgage markets throughout the country.

If you have not yet responded, please do so by **April 1, 2019**.

If you misplaced the questionnaire please complete the survey online:
GO TO www.NSMOSurvey.com
LOG IN with your unique survey PIN #: <123 456 789>

The survey should take **about 20 minutes** to complete. Thank you for considering our request. If you have any questions, please call toll free **1-855-339-7877** or visit one of our websites: **www.fhfa.gov/nsmo** or **www.consumerfinance.gov**.

We look forward to receiving your questionnaire.

Sandra Thompson
 Deputy Director of Housing, Mission, and Goals
 Federal Housing Finance Agency

David M. Silberman
 Associate Director for Research, Markets, and Regulations
 Consumer Financial Protection Bureau



To read this letter in English, please turn over to the other side.

1234567 101
 <FIRST NAME1> <LAST NAME1>
 <FIRST NAME2> <LAST NAME2>
 <ADDRESS>
 <CITY> <STATE> <ZIP>

18 de marzo de 2019

Estimado Señor, Señora, o Señorita:

El pasado febrero Ud. habrá recibido correspondencia acerca de una encuesta relacionada con un estudio sobre las prácticas hipotecarias. Este estudio es fundamental para nuestro entendimiento de los factores que influyen a los mercados hipotecarios y para asegurar la protección al consumidor.

Esta etapa del estudio ya está por terminar a fines de este mes. En las próximas semanas empezaremos el análisis de las respuestas que ya hemos recibido. Los resultados de este estudio son sumamente importantes para fomentar un sector de vivienda con costos razonables y estabilidad en los mercados hipotecarios.

Si Ud. aún no ha respondido a la encuesta, favor de completarla para el **abril 1 de 2019**.

Si perdió el cuestionario por favor complete la encuesta por el internet.
VAYA a www.NSMOSurvey.com
INICIE la sesión ingresando su número único (PIN): <123 456 789>

Completar la encuesta dura **unos 20 minutos**. Gracias por su asistencia. Si tiene cualquier pregunta llámenos a nuestra línea directa y gratuita: **1-855-339-7877** o visítenos en la red del internet al **www.fhfa.gov/nsmo** o **www.consumerfinance.gov**.

Atentamente,

Sandra Thompson
 Directora, Adjunta para la Vivienda, Misión y Metas
 La Agencia Federal de Financiamiento de la Vivienda

David M. Silberman
 Director Asociado de Investigación, Mercados, y Regulación
 Oficina de Protección al Consumidor

Tell us about your recent mortgage experience

A nationwide survey of mortgage borrowers throughout the United States



Learning directly from borrowers, like you, about your experiences will help us improve lending practices and the mortgage process for future borrowers.

The Federal Housing Finance Agency and the Consumer Financial Protection Bureau are working together on your behalf to improve the safety of the U.S. housing finance system and ensure all consumers have access to financial products and services.

We want to make it as easy as possible for you to complete this survey. You can mail back the paper survey in the enclosed business reply envelope OR complete the survey online. The online version of the questionnaire may be easier to complete, because it skips any questions that do not apply to you. Online responses are also processed more quickly making it less likely that you will receive reminders to complete this survey. The online questionnaire can be completed in either English or Spanish as explained below.

To complete the survey online

GO TO www.NSMOSurvey.com

LOG IN with your unique survey PIN # found in the accompanying letter

Esta encuesta está disponible en español en línea

Visite al sitio web www.NSMOSurvey.com

Inicie la sesión con su número PIN único de la encuesta que se encuentra en la carta adjunta.

You can find more information on our websites - www.fhfa.gov/nsmo and www.consumerfinance.gov

We are interested in learning about your experience purchasing or refinancing either a personal home or a home for someone else, including rental property.

We look forward to hearing from you.

Privacy Act Notice: In accordance with the Privacy Act, as amended (5 U.S.C. § 552a), the following notice is provided. The information requested on this Survey is collected pursuant to 12 U.S.C. 4544 for the purposes of gathering information for the National Mortgage Database. Routine uses which may be made of the collected information can be found in the Federal Housing Finance Agency's System of Records Notice (SORN) FHFA-21 National Mortgage Database. Providing the requested information is voluntary. Submission of the survey authorizes FHFA to collect the information provided and to disclose it as set forth in the referenced SORN.

Paperwork Reduction Act Statement: Notwithstanding any other provision of the law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of information subject to the requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control Number.

OMB No. 2590-0012
Expires 4/30/2020

1. Did you, in the last couple of years, take out or co-sign for a mortgage loan including a purchase or any refinance/modification of an existing mortgage?

- Yes
- No → Skip to 72 on page 7

2. When did you take out this mortgage? If you took out or co-signed for more than one mortgage, please refer to your experience with the most recent refinance, modification, or new mortgage.

/
month year

3. Did we mail this survey to the address of the property you financed with this mortgage?

- Yes No

4. Who signed or co-signed for this mortgage?

Mark all that apply.

- I signed
- Spouse/partner including a former spouse/partner
- Parents
- Children
- Other relatives
- Other (e.g. friend, business partner)

→ If you co-signed this loan with others, take into account all co-signers as best you can when answering the survey. If no co-signers, answer based on your own situation.

5. When you began the process of getting this mortgage, how familiar were you (and any co-signers) with each of the following?

	Very	Somewhat	Not At All
The mortgage interest rates available at that time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The different types of mortgages available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The mortgage process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The down payment needed to qualify for a mortgage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The income needed to qualify for a mortgage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Your credit history or credit score	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The money needed at closing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. When you began the process of getting this mortgage, how concerned were you about qualifying for a mortgage?

- Very Somewhat Not at all

7. How firm an idea did you have about the mortgage you wanted?

- Firm idea Some idea Little idea

8. How much did you use each of the following sources to get information about mortgages or mortgage lenders?

	A Lot	A Little	Not At All
Your mortgage lender/broker	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other mortgage lenders/brokers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Real estate agents or builders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Material in the mail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Websites that provide information on getting a mortgage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Newspaper/TV/Radio	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Friends/relatives/co-workers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bankers, credit unions or financial planners	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Housing counselors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify) <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9. Which one of the following best describes your shopping process?

- I picked the loan type first, and then I picked the mortgage lender/broker
- I picked the mortgage lender/broker first, and then I picked the loan type

10. Which one of the following best describes how you applied for this mortgage?

- Directly to a lender, such as a bank or credit union
- Through a mortgage broker who works with multiple lenders to get you a loan
- Through a builder who arranged financing
- Other (specify)

11. How many different mortgage lenders/brokers did you seriously consider before choosing where to apply for this mortgage?

- 1 2 3 4 5 or more



12. How many different mortgage lenders/brokers did you end up applying to?

- 1 2 3 4 5 or more

13. Did you apply to more than one mortgage lender/broker for any of the following reasons?

	Yes	No
Searching for better loan terms	<input type="checkbox"/>	<input type="checkbox"/>
Concern over qualifying for a loan	<input type="checkbox"/>	<input type="checkbox"/>
Information learned from the "Loan Estimate"	<input type="checkbox"/>	<input type="checkbox"/>
Turned down on earlier application	<input type="checkbox"/>	<input type="checkbox"/>

14. How important were each of the following in choosing the mortgage lender/broker you used for the mortgage you took out?

	Important	Not Important
Having an established banking relationship	<input type="checkbox"/>	<input type="checkbox"/>
Having a local office or branch nearby	<input type="checkbox"/>	<input type="checkbox"/>
Used previously to get a mortgage	<input type="checkbox"/>	<input type="checkbox"/>
Mortgage lender/broker is a personal friend or relative	<input type="checkbox"/>	<input type="checkbox"/>
Paperless online mortgage process	<input type="checkbox"/>	<input type="checkbox"/>
Recommendation from a friend/relative/co-worker	<input type="checkbox"/>	<input type="checkbox"/>
Recommendation from a real estate agent/home builder	<input type="checkbox"/>	<input type="checkbox"/>
Reputation of mortgage lender/broker	<input type="checkbox"/>	<input type="checkbox"/>
Spoke my primary language, which is not English	<input type="checkbox"/>	<input type="checkbox"/>
Could provide documents in my primary language, which is not English	<input type="checkbox"/>	<input type="checkbox"/>

15. Who initiated the first contact between you and the mortgage lender/broker you used for the mortgage you took out?

- I (or one of my co-signers) did
- The mortgage lender/broker did
- We were put in contact by a third party (such as a real estate agent or home builder)

16. How open were you to suggestions from your mortgage lender/broker about mortgages with different features or terms?

- Very Somewhat Not at all

17. How important were each of the following in determining the mortgage you took out?

	Important	Not Important
Lower interest rate	<input type="checkbox"/>	<input type="checkbox"/>
Lower APR (Annual Percentage Rate)	<input type="checkbox"/>	<input type="checkbox"/>
Lower closing fees	<input type="checkbox"/>	<input type="checkbox"/>
Lower down payment	<input type="checkbox"/>	<input type="checkbox"/>
Lower monthly payment	<input type="checkbox"/>	<input type="checkbox"/>
An interest rate fixed for the life of the loan	<input type="checkbox"/>	<input type="checkbox"/>
A term of 30 years	<input type="checkbox"/>	<input type="checkbox"/>
No mortgage insurance	<input type="checkbox"/>	<input type="checkbox"/>

18. Your lender may have given you a booklet "Your home loan toolkit: A step-by-step guide," do you remember receiving a copy?

- Yes
 No
 Don't know } Skip to 20

19. Did the "Your home loan toolkit" booklet lead you to ask additional questions about your mortgage terms?

- Yes No

20. In the process of getting this mortgage from your mortgage lender/broker, did you...

	Yes	No
Have to add another co-signer to qualify	<input type="checkbox"/>	<input type="checkbox"/>
Resolve credit report errors or problems	<input type="checkbox"/>	<input type="checkbox"/>
Answer follow-up requests for more information about income or assets	<input type="checkbox"/>	<input type="checkbox"/>
Have more than one appraisal	<input type="checkbox"/>	<input type="checkbox"/>
Redo/refile paperwork due to processing delays	<input type="checkbox"/>	<input type="checkbox"/>
Delay or postpone closing date	<input type="checkbox"/>	<input type="checkbox"/>
Have your "Loan Estimate" revised to reflect changes in your loan terms	<input type="checkbox"/>	<input type="checkbox"/>
Check other sources to confirm that terms of this mortgage were reasonable	<input type="checkbox"/>	<input type="checkbox"/>
Get documents in your primary language, which is not English	<input type="checkbox"/>	<input type="checkbox"/>
Have the lender/broker translate in your primary language, which is not English	<input type="checkbox"/>	<input type="checkbox"/>

21. Was the "Loan Estimate" you received from your mortgage lender/broker...

	Yes	No
Easy to understand	<input type="checkbox"/>	<input type="checkbox"/>
Valuable information	<input type="checkbox"/>	<input type="checkbox"/>



22. Did the "Loan Estimate" lead you to...

	Yes	No
Ask questions of your mortgage lender/broker	<input type="checkbox"/>	<input type="checkbox"/>
Seek a change in your loan or closing	<input type="checkbox"/>	<input type="checkbox"/>
Apply to a different mortgage lender/broker	<input type="checkbox"/>	<input type="checkbox"/>

23. During the application process were you told about mortgages with any of the following?

	Yes	No
An interest rate that is fixed for the life of the loan	<input type="checkbox"/>	<input type="checkbox"/>
An interest rate that could change over the life of the loan	<input type="checkbox"/>	<input type="checkbox"/>
A term of less than 30 years	<input type="checkbox"/>	<input type="checkbox"/>
A higher interest rate in return for lower closing costs	<input type="checkbox"/>	<input type="checkbox"/>
A lower interest rate in return for paying higher closing costs (<i>discount points</i>)	<input type="checkbox"/>	<input type="checkbox"/>
Interest-only monthly payments	<input type="checkbox"/>	<input type="checkbox"/>
An escrow account for taxes and/or homeowner insurance	<input type="checkbox"/>	<input type="checkbox"/>
A prepayment penalty (<i>fee if the mortgage is paid off early</i>)	<input type="checkbox"/>	<input type="checkbox"/>
Reduced documentation or "easy" approval	<input type="checkbox"/>	<input type="checkbox"/>
An FHA, VA, USDA or Rural Housing loan	<input type="checkbox"/>	<input type="checkbox"/>

24. In selecting your settlement/closing agent did you use someone...

	Yes	No
Selected/recommended by the mortgage lender/broker, or real estate agent	<input type="checkbox"/>	<input type="checkbox"/>
You used previously	<input type="checkbox"/>	<input type="checkbox"/>
Found shopping around	<input type="checkbox"/>	<input type="checkbox"/>

Did not have a settlement/closing agent

25. Do you have title insurance on this mortgage?

- Yes
 - No
 - Don't know
- } Skip to 27

26. Which one best describes how you picked the title insurance?

- Reissued previous title insurance
- Used title insurance recommended by mortgage lender/broker or settlement agent
- Shopped around

27. Overall, how satisfied are you that the mortgage you got was the one with the...

	Very	Somewhat	Not At All
Best terms to fit your needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lowest interest rate for which you could qualify	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lowest closing costs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

28. Overall, how satisfied are you with the...

	Very	Somewhat	Not At All
Mortgage lender/broker you used	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Application process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Documentation process required for the loan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Loan closing process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Information in mortgage disclosure documents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Timeliness of mortgage disclosure documents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Settlement agent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

29. Did you take a course about home-buying or talk to a professional housing counselor?

- Yes
- No → Skip to 33 on page 4

30. Was your home-buying course or counseling...

	Yes	No
In person, one-on-one	<input type="checkbox"/>	<input type="checkbox"/>
In person, in a group	<input type="checkbox"/>	<input type="checkbox"/>
Over the phone	<input type="checkbox"/>	<input type="checkbox"/>
Online	<input type="checkbox"/>	<input type="checkbox"/>
Required	<input type="checkbox"/>	<input type="checkbox"/>

31. How many hours was your home-buying course or counseling?

- Less than 3 hours
- 3 – 6 hours
- 7 – 12 hours
- More than 12 hours

32. Overall, how helpful was your home-buying course or counseling?

- Very
- Somewhat
- Not at all



33. Which one of these reasons best describes this most recent mortgage?

- To buy a property
- To refinance or modify an earlier mortgage
- To add/remove a co-borrower
- To finance a construction loan
- To take out a new loan on a mortgage-free property
- Some other purpose (specify)

Skip to 37

34. Did you do the following before or after you made an offer on this house or property?

	Before Offer	After Offer	Did Not Do
Contacted a lender to explore mortgage options	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Got a pre-approval or pre-qualification from a lender	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Decided on the type of loan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Made a decision on which lender to use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Submitted an official loan application	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

35. What percent down payment did you make on this property?

- 0%
- Less than 3%
- 3% to less than 5%
- 5% to less than 10%
- 10% to less than 20%
- 20% to less than 30%
- 30% or more

36. Did you use any of the following sources of funds to purchase this property?

	Used	Not Used
Proceeds from the sale of another property	<input type="checkbox"/>	<input type="checkbox"/>
Savings, retirement account, inheritance, or other assets	<input type="checkbox"/>	<input type="checkbox"/>
Assistance or loan from a nonprofit or government agency	<input type="checkbox"/>	<input type="checkbox"/>
A second lien, home equity loan, or home equity line of credit (HELOC)	<input type="checkbox"/>	<input type="checkbox"/>
Gift or loan from family or friend	<input type="checkbox"/>	<input type="checkbox"/>
Seller contribution	<input type="checkbox"/>	<input type="checkbox"/>

Skip to 41

37. How important were the following in your decision to refinance, modify or obtain a new mortgage?

	Important	Not Important
Change to a fixed-rate loan	<input type="checkbox"/>	<input type="checkbox"/>
Get a lower interest rate	<input type="checkbox"/>	<input type="checkbox"/>
Get a lower monthly payment	<input type="checkbox"/>	<input type="checkbox"/>
Consolidate or pay down other debt	<input type="checkbox"/>	<input type="checkbox"/>
Repay the loan more quickly	<input type="checkbox"/>	<input type="checkbox"/>
Take out cash	<input type="checkbox"/>	<input type="checkbox"/>

38. Approximately how much was owed, in total, on the old mortgage(s) and loan(s) you refinanced?

\$.00

Zero (the property was mortgage-free)

39. How did the total amount of your new mortgage(s) compare to the total of the old mortgage(s) and loan(s) you paid off?

- New amount is lower
- New amount is about the same
- New amount is higher
- Property was mortgage-free

40. Did you use the money you got from this new mortgage for any of the following?

	Yes	No
College expenses	<input type="checkbox"/>	<input type="checkbox"/>
Auto or other major purchase	<input type="checkbox"/>	<input type="checkbox"/>
Buy out co-borrower, e.g. ex-spouse	<input type="checkbox"/>	<input type="checkbox"/>
Pay off other bills or debts	<input type="checkbox"/>	<input type="checkbox"/>
Home repairs or new construction	<input type="checkbox"/>	<input type="checkbox"/>
Savings	<input type="checkbox"/>	<input type="checkbox"/>
Closing costs of new mortgage	<input type="checkbox"/>	<input type="checkbox"/>
Business or investment	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>

Did not get money from refinancing

This Mortgage

41. When you took out this most recent mortgage or refinance, what was the dollar amount you borrowed?

\$.00 Don't know



42. What is the monthly payment, including the amount paid to escrow for taxes and insurance?

\$.00 Don't know

43. What is the interest rate on this mortgage?

% Don't know

44. Is this an adjustable-rate mortgage (one that allows the interest rate to change over the life of the loan)?

- Yes
- No
- Don't know

45. Which one of the following best describes how you decided on the interest rate of your mortgage?

- Paid higher closing costs to get lower interest rate
- Paid lower closing costs with a higher interest rate
- Got a balance between closing costs and interest rate

46. Does this mortgage have...

	Yes	No	Don't Know
A prepayment penalty (<i>fee if the mortgage is paid off early</i>)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
An escrow account for taxes and/or homeowner insurance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A balloon payment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interest-only payments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Private mortgage insurance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

47. At any time after you made your final loan application did any of the following change?

	Higher	Same	Lower
Monthly payment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interest rate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other fees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Amount of money needed to close loan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

48. The "Closing Disclosure" statement you received at closing shows the loan closing costs and other closing costs separately. What were the loan closing costs you paid on this loan?

\$.00 Don't know

49. How were the total closing costs (loan costs and other costs) for this loan paid?

	Yes	No	Don't Know
By me or a co-signer with a check or wire transfer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Added to the mortgage amount	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
By mortgage lender/broker	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
By seller/builder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Loan had no closing costs

50. Were the loan costs you paid similar to what you had expected to pay based on the Loan Estimates or Closing Disclosures you received?

- Yes
- No

51. Did you seek input about your closing documents from any of the following people?

	Yes	No
Mortgage lender/broker	<input type="checkbox"/>	<input type="checkbox"/>
Settlement/closing agent	<input type="checkbox"/>	<input type="checkbox"/>
Real estate agent	<input type="checkbox"/>	<input type="checkbox"/>
Personal attorney	<input type="checkbox"/>	<input type="checkbox"/>
Title insurance agent	<input type="checkbox"/>	<input type="checkbox"/>
Trusted friend or relative who is not a co-signer on the mortgage	<input type="checkbox"/>	<input type="checkbox"/>
Housing counselor	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>

52. Did you face any of the following at your loan closing?

	Yes	No
Loan documents not ready at closing	<input type="checkbox"/>	<input type="checkbox"/>
Closing did not occur as originally scheduled	<input type="checkbox"/>	<input type="checkbox"/>
Three-day rule required re-disclosure	<input type="checkbox"/>	<input type="checkbox"/>
Mortgage terms different at closing than expected, e.g. interest rate, monthly payment	<input type="checkbox"/>	<input type="checkbox"/>
More cash needed at closing than expected, e.g. escrow, unexpected fees	<input type="checkbox"/>	<input type="checkbox"/>
Less cash needed at closing than expected	<input type="checkbox"/>	<input type="checkbox"/>
Asked to sign blank documents at closing	<input type="checkbox"/>	<input type="checkbox"/>
Asked to sign pre-dated or post-dated documents at closing	<input type="checkbox"/>	<input type="checkbox"/>
Felt rushed at closing or not given time to read documents	<input type="checkbox"/>	<input type="checkbox"/>

45692



This Mortgaged Property

53. Is there any additional problem you encountered while getting this mortgage that you'd like to tell us about?

54. At the same time you took out this mortgage, did you also take out another loan on the property you financed with this mortgage (a second lien, home equity loan, or a home equity line of credit (HELOC))?

- Yes
 No → Skip to 56

55. What was the amount of this loan?

\$.00
 Don't know

56. How well could you explain to someone the...

	Very	Somewhat	Not At All
Process of taking out a mortgage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Difference between a fixed- and an adjustable-rate mortgage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Difference between a prime and subprime loan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Difference between a mortgage's interest rate and its APR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Amortization of a loan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Consequences of not making required mortgage payments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Difference between lender's and owner's title insurance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Relationship between discount points and interest rate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reason payments into an escrow account can change	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

57. When did you first become the owner of this property?

/
 month / year

58. What was the purchase price of this property, or if you built it, the construction and land cost?

\$.00 Don't know

59. Which one of the following best describes how you acquired this property?

- Purchased an existing home
- Purchased a newly-built home from a builder
- Had or purchased land and built a house
- Received as a gift or inheritance
- Other (specify)

60. Which one of the following best describes this property?

- Single-family detached house
- Mobile home or manufactured home
- Townhouse, row house, or villa
- 2-unit, 3-unit, or 4-unit dwelling
- Apartment (or condo/co-op) in apartment building
- Unit in a partly commercial structure
- Other (specify)

61. Does this mortgage cover more than one unit?

- Yes No

62. About how much do you think this property is worth in terms of what you could sell it for now?

\$.00 Don't know

63. Do you rent out all or any portion of this property?

- Yes
 No → Skip to 65 on page 7

64. How much rent do you receive annually?

\$.00 per year

45692



65. Besides you, the mortgage co-signers, and renters, does anyone else help pay the expenses for this property?

- Yes
- No

66. Which of the following best describes how you use this property?

- Primary residence (*where you spend the majority of your time*)
 - It will be my primary residence soon
 - Seasonal or second home
 - Home for other relatives
 - Rental or investment property
 - Other (specify) _____
- } Skip to 68

67. If primary residence, when did you move into this property?

____ / ____
month / year

68. In the last couple years, how have the following changed in the neighborhood where this property is located?

	Significant Increase	Little/No Change	Significant Decrease
Number of homes for sale	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Number of vacant homes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Number of homes for rent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Number of foreclosures or short sales	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
House prices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overall desirability of living there	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

69. What do you think will happen to the prices of homes in this neighborhood over the next couple of years?

- Increase a lot
- Increase a little
- Remain about the same
- Decrease a little
- Decrease a lot

70. In the next couple of years, how do you expect the overall desirability of living in this neighborhood to change?

- Become more desirable
- Stay about the same
- Become less desirable

71. How likely is it that in the next couple of years you will...

	Very	Somewhat	Not At All
Sell this property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Move but keep this property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Refinance the mortgage on this property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pay off this mortgage and own the property mortgage-free	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Your Household

72. What is your current marital status?

- Married
- Separated
- Never married
- Divorced
- Widowed

73. Do you have a partner who shares the decision-making and responsibilities of running your household but is not your legal spouse?

- Yes
- No

Please answer the following questions for you and your spouse or partner, if applicable.

74. Age at last birthday:

You	Spouse/ Partner
____ years	____ years

75. Sex:

	You	Spouse/ Partner
Male	<input type="checkbox"/>	<input type="checkbox"/>
Female	<input type="checkbox"/>	<input type="checkbox"/>

76. Highest level of education achieved:

	You	Spouse/ Partner
Some schooling	<input type="checkbox"/>	<input type="checkbox"/>
High school graduate	<input type="checkbox"/>	<input type="checkbox"/>
Technical school	<input type="checkbox"/>	<input type="checkbox"/>
Some college	<input type="checkbox"/>	<input type="checkbox"/>
College graduate	<input type="checkbox"/>	<input type="checkbox"/>
Postgraduate studies	<input type="checkbox"/>	<input type="checkbox"/>



77. Hispanic or Latino:

	You	Spouse/ Partner
Yes	<input type="checkbox"/>	<input type="checkbox"/>
No	<input type="checkbox"/>	<input type="checkbox"/>

78. Race: Mark all that apply.

	You	Spouse/ Partner
White	<input type="checkbox"/>	<input type="checkbox"/>
Black or African American	<input type="checkbox"/>	<input type="checkbox"/>
American Indian or Alaska Native	<input type="checkbox"/>	<input type="checkbox"/>
Asian	<input type="checkbox"/>	<input type="checkbox"/>
Native Hawaiian or Pacific Islander	<input type="checkbox"/>	<input type="checkbox"/>

79. Current work status: Mark all that apply.

	You	Spouse/ Partner
Self-employed full time	<input type="checkbox"/>	<input type="checkbox"/>
Self-employed part time	<input type="checkbox"/>	<input type="checkbox"/>
Employed full time	<input type="checkbox"/>	<input type="checkbox"/>
Employed part time	<input type="checkbox"/>	<input type="checkbox"/>
Retired	<input type="checkbox"/>	<input type="checkbox"/>
Unemployed, temporarily laid-off or on leave	<input type="checkbox"/>	<input type="checkbox"/>
Not working for pay (<i>student, homemaker, disabled</i>)	<input type="checkbox"/>	<input type="checkbox"/>

80. Ever served on active duty in the U.S. Armed Forces, Reserves or National Guard?

	You	Spouse/ Partner
Never served in the military	<input type="checkbox"/>	<input type="checkbox"/>
Only on active duty for training in the Reserves or National Guard	<input type="checkbox"/>	<input type="checkbox"/>
Now on active duty	<input type="checkbox"/>	<input type="checkbox"/>
On active duty in the past, but not now	<input type="checkbox"/>	<input type="checkbox"/>

81. Besides you (and your spouse/partner) who else lives in your household? Mark all that apply.

- Children/grandchildren under age 18
- Children/grandchildren age 18 – 22
- Children/grandchildren age 23 or older
- Parents of you or your spouse or partner
- Other relatives like siblings or cousins
- Non-relative

- No one else

82. Do you speak a language other than English at home?

Yes No

83. Approximately how much is your total annual household income from all sources (wages, salaries, tips, interest, child support, investment income, retirement, social security, and alimony)?

- Less than \$35,000
- \$35,000 to \$49,999
- \$50,000 to \$74,999
- \$75,000 to \$99,999
- \$100,000 to \$174,999
- \$175,000 or more

84. How does this total annual household income compare to what it is in a "normal" year?

- Higher than normal
- Normal
- Lower than normal

85. Does your total annual household income include any of the following sources?

	Yes	No
Wages or salary	<input type="checkbox"/>	<input type="checkbox"/>
Business or self-employment	<input type="checkbox"/>	<input type="checkbox"/>
Interest or dividends	<input type="checkbox"/>	<input type="checkbox"/>
Alimony or child support	<input type="checkbox"/>	<input type="checkbox"/>
Social Security, pension or other retirement benefits	<input type="checkbox"/>	<input type="checkbox"/>

86. Does anyone in your household have any of the following?

	Yes	No
401(k), 403(b), IRA, or pension plan	<input type="checkbox"/>	<input type="checkbox"/>
Stocks, bonds, or mutual funds (<i>not in retirement accounts or pension plans</i>)	<input type="checkbox"/>	<input type="checkbox"/>
Certificates of deposit	<input type="checkbox"/>	<input type="checkbox"/>
Investment real estate	<input type="checkbox"/>	<input type="checkbox"/>

87. Which one of the following statements best describes the amount of financial risk you are willing to take when you save or make investments?

- Take substantial financial risks expecting to earn substantial returns
- Take above-average financial risks expecting to earn above-average returns
- Take average financial risks expecting to earn average returns
- Not willing to take any financial risks



88. Do you agree or disagree with the following statements?

	Agree	Disagree
Owning a home is a good financial investment	<input type="checkbox"/>	<input type="checkbox"/>
Most mortgage lenders generally treat borrowers well	<input type="checkbox"/>	<input type="checkbox"/>
Most mortgage lenders would offer me roughly the same rates and fees	<input type="checkbox"/>	<input type="checkbox"/>
Late payments will lower my credit rating	<input type="checkbox"/>	<input type="checkbox"/>
Lenders shouldn't care about any late payments, only whether loans are fully repaid	<input type="checkbox"/>	<input type="checkbox"/>
It is okay to default or stop making mortgage payments if it is in the borrower's financial interest	<input type="checkbox"/>	<input type="checkbox"/>
I would consider counseling or taking a course about managing my finances if I faced financial difficulties	<input type="checkbox"/>	<input type="checkbox"/>

89. In the last couple of years, have any of the following happened to you?

	Yes	No
Separated, divorced or partner left	<input type="checkbox"/>	<input type="checkbox"/>
Married, remarried or new partner	<input type="checkbox"/>	<input type="checkbox"/>
Death of a household member	<input type="checkbox"/>	<input type="checkbox"/>
Addition to your household (not including spouse/partner)	<input type="checkbox"/>	<input type="checkbox"/>
Person leaving your household (not including spouse/partner)	<input type="checkbox"/>	<input type="checkbox"/>
Disability or serious illness of household member	<input type="checkbox"/>	<input type="checkbox"/>
Disaster affecting a property you own	<input type="checkbox"/>	<input type="checkbox"/>
Disaster affecting your (or your spouse/partner's) work	<input type="checkbox"/>	<input type="checkbox"/>
Moved within the area (less than 50 miles)	<input type="checkbox"/>	<input type="checkbox"/>
Moved to a new area (50 miles or more)	<input type="checkbox"/>	<input type="checkbox"/>

90. In the last couple of years, have any of the following happened to you (or your spouse/partner)?

	Yes	No
Layoff, unemployment, or reduced hours of work	<input type="checkbox"/>	<input type="checkbox"/>
Retirement	<input type="checkbox"/>	<input type="checkbox"/>
Promotion	<input type="checkbox"/>	<input type="checkbox"/>
Starting a new job	<input type="checkbox"/>	<input type="checkbox"/>
Starting a second job	<input type="checkbox"/>	<input type="checkbox"/>
Business failure	<input type="checkbox"/>	<input type="checkbox"/>
A personal financial crisis	<input type="checkbox"/>	<input type="checkbox"/>

91. In the last couple years, how have the following changed for you (and your spouse/partner)?

	Significant Increase	Little/No Change	Significant Decrease
Household income	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Housing expenses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Non-housing expenses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

92. In the next couple of years, how do you expect the following to change for you (and your spouse/partner)?

	Significant Increase	Little/No Change	Significant Decrease
Household income	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Housing expenses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Non-housing expenses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

93. How likely is it that in the next couple of years you (or your spouse/partner) will face...

	Very	Somewhat	Not At All
Retirement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Difficulties making your mortgage payments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A layoff, unemployment, or forced reduction in hours	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Some other personal financial crisis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

94. If your household faced an unexpected personal financial crisis in the next couple of years, how likely is it you could...

	Very	Somewhat	Not At All
Pay your bills for the next 3 months without borrowing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Get significant financial help from family or friends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Borrow a significant amount from a bank or credit union	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Significantly increase your income	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



The Federal Housing Finance Agency and the Consumer Financial Protection Bureau thank you for completing this survey.

*We have provided the space below if you wish to share additional comments or further explain any of your answers. **Please do not put your name or address on the questionnaire.***

Please use the enclosed business reply envelope to return your completed questionnaire.

**FHFA
1600 Research Blvd, RC B16
Rockville, MD 20850**

For any questions about the survey or online access you can call toll free 1-855-339-7877.

45692



Appendix B. Retired NSMO Questions

This appendix lists the NSMO questions that were retired after Waves 6, 10, 14, and 18.

Questions Retired after Wave 6

13. How important were each of the following in choosing the lender/broker you used for the mortgage you took out?

Lender is a community bank or credit union

Recommendation from a lending website

- Very
- Somewhat
- Not At All

19. In the process of getting your mortgage from your lender/broker, did you...

Add a co-signer

- Yes
- No

36. Many mortgages have discount points paid to the lender to get a lower interest rate. Did you pay any discount points?

- Yes
- No

37. (If Yes in Q36) How many discount points did you pay?

38. Some lenders charge origination points to cover the cost of preparing a mortgage for closing. These are often expressed as a percentage of the loan amount. Did you pay any origination points?

- Yes
- No

39. (If Yes in Q38) How many origination points did you pay?

40. Does your mortgage have any of the following features?

Owner's title insurance

Credit life/debt suspension/debt cancellation insurance

- Yes
- No
- Don't Know

51. Which statement best describes the approach you took to purchase your house or property?

- Had a pre-approval or pre-qualification from a lender before I made the purchase
- Shopped for a mortgage after making the purchase offer
- Shopped for house and mortgage at the same time

53. (If Yes to Q52) How much money from the sale of this other property was used to purchase your property?

64. (If multiple units in Q63) How many separate living units does your mortgage cover?

70. Is anyone who currently lives in the property a co-signer on your mortgage?

- Yes
- No

75. Ever owned other residential properties besides this one:

You

Spouse/Partner

- Yes
- No

81. Besides you (and your spouse/partner), does anyone else live in your household or use your house as a permanent address?

- Yes
- No

82. (If Yes to Q81) How many of the other household members are 18 years of age or younger?

83. (If Yes to Q81) How many of the other household members are older than 18?

84. (If Yes to Q81) Do any of the other household members help pay for household expenses?

- Yes
- No

Questions Retired after Wave 10

3. Including you, how many people signed or cosigned for this mortgage?

- 1
- 2
- 3
- 4 or more

19. In the process of getting this mortgage from your lender/broker, did you...

End up with better mortgage terms than you were originally offered

- Yes
- No

49. Did you compare the final loan costs to the final Good Faith Estimate you received from your lender?

- Yes
- No

50. Did you find any significant differences between the two?
- Yes
 - No

Questions Retired after Wave 14

45. When was the interest rate set/locked on this loan?
- At application
 - Between application and closing
 - Around closing

Questions Retired after Wave 18

14. How important were each of the following in choosing the lender/mortgage broker you used for the mortgage you took out?
- Lender/mortgage broker operates online
- Important
 - Not Important
45. At the time of application, did the lender give you the option to set/lock the interest rate so that it would not change before closing?
- Yes
 - No
 - Don't Know
52. Did you face any unpleasant "surprises" at your loan closing?
- Yes
 - No

Appendix C. NSMO Public Use File Codebook and Tabulations

Because the codebook and tabulations contain a large number of pages, a separate document is available on www.fhfa.gov/nsmodata.

