

2023 Mortgage Market Activity and Trends

This is another in an occasional series of publications from the Consumer Financial Protection Bureau's Office of Research. These publications are intended to further the CFPB's objective of providing an evidence-based perspective on consumer financial markets, consumer behavior, and regulations to inform the public discourse. *See* 12 U.S.C. §5493(d).

Table of contents

Table of contents.....	3
1. Introduction	4
2. Mortgage applications and originations	7
3. Mortgage outcomes by demographic groups and loan types	18
3.1 Distribution of home loans	18
3.2 Mortgage characteristics of home loans	22
3.3 Denial rates.....	36
4. Monthly mortgage trends and activities.....	40
5. Trends in interest rates and mortgage payment burdens	56
6. Lending institutions	62
7. Conclusion.....	77
APPENDIX A: Underlying data	79

1. Introduction

This report provides an overview of residential mortgage lending in 2023 based on the data collected under the Home Mortgage Disclosure Act (HMDA). HMDA is a data collection, reporting, and disclosure statute enacted in 1975. HMDA data are used to assist in determining whether financial institutions are serving the housing credit needs of their local communities; facilitate public entities' distribution of funds to local communities to attract private investment; and help identify possible discriminatory lending patterns and enforce antidiscrimination statutes.¹ Institutions covered by HMDA are required to collect and report specified information about each mortgage application acted upon and mortgage purchased. The data include the disposition of each application for mortgage credit; the type, purpose, and characteristics of each home mortgage application or purchased loan; the census-tract designations of the properties; loan pricing information; demographic and other information about loan applicants, such as their race, ethnicity, sex, age, and income; and information about loan sales.²

The 2023 HMDA data³ are the sixth year of data that incorporate amendments made to HMDA by the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (DFA). On July 11, 2024, the Consumer Financial Protection Bureau (CFPB) published a static application-level 2023 HMDA data file that consolidates data from individual reporters, called the “Snapshot National Loan-Level Data.”⁴ The data file is modified to protect applicant and borrower privacy.⁵ The data file reflects 2023 mortgage data as of May 1, 2024 and is used for the analysis in this report. Though this static file will not change, the CFPB will also provide an updated file separately to reflect any later resubmissions or late submissions. The results using the updated file may differ from those reported in this report, although the CFPB expects them to be largely consistent.

* This report was authored by Feng Liu, Young Jo, Noah Cohen-Harding, and Isabelle Caldwell (CFPB Office of Research).

¹ For a brief history of HMDA, see Federal Financial Institutions Examination Council, “History of HMDA,” available at www.ffiec.gov/hmda/history2.htm (last modified Sept. 06, 2018).

² See *Filing instructions guide for HMDA data collected in 2022* (November 2020), available at <https://s3.amazonaws.com/cfpb-hmda-public/prod/help/2022-hmda-fig.pdf> for a full list of items reported under HMDA for 2022.

³ The 2023 HMDA data cover mortgage applications acted upon and mortgages purchased during the 2023 calendar year and reported in 2024. Similarly, the 2018, 2019, 2020, 2021 and 2022 HMDA data refer to applications acted upon, and mortgages purchased during the calendar years of 2018, 2019, 2020, 2021, and 2022, respectively.

⁴ See <https://ffiec.cfpb.gov/data-publication/snapshot-national-loan-level-dataset/2023>.

⁵ For more information concerning these modifications and the CFPB's analyses under the balancing test it adopted to protect applicant and borrower privacy while also fulfilling HMDA's disclosure purposes, see Disclosure of Loan-Level HMDA Data 84 FR 649 (Jan. 31, 2019).

In 2023, we continued to observe a decline in applications and originations across all loan types. On the other hand, the mortgage interest rates rose further in 2023. The monthly average interest rates for 30-year fixed-rate closed-end conventional conforming loans originated to prime borrowers secured by first-lien principal residence increased from 6.238 in January to 7.169 by December of 2023. The rising interest rate was accompanied by an increase in the discount points and the total loan costs borrowers pay. Moreover, the rising interest rate led to higher monthly mortgage payments, potentially shifting the composition of home purchase borrowers to higher income borrowers. Some of the key findings are:⁶

- **The total number of applications and originations dropped significantly in 2023.** The number of applications and originations continued their downward trend in 2023, with the number of applications decreasing by about 4.3 million or 30.3 percent and originations decreasing by 2.7 million or 32.2 percent from 2022. The origination volume in 2023 stood only at about 37.9 percent of its recent peak in 2021.
- **Refinance originations dropped by more than half since 2022, and home purchase originations dropped by less than one third.** Lenders reported approximately 3.2 million closed-end site-built one-to-four family (single-family) home purchase originations in 2023, a 21.3 percent decrease from 4.1 million originations in 2022. The closed-end site-built single-family refinance originations fell from 2.2 million in 2022 to 796,000 in 2023, which was a reduction of 64.2 percent. Most of the refinance originations left in the market were a small number of cash-out refinance loans.
- **More than half of all borrowers paid discount points, a 12.7 percent increase from 2022.** Among the first lien closed-end home purchase loans secured by a single-family principal residence and not for commercial/business purpose, about 56.6 percent of loans paid some discount points in 2023, which was a 12.7 percent increase from 2022. The median discount points paid for home purchase loans were \$3,000 and that for refinance loans were \$3,902 in 2023, which were a 26.6 percent and a 35.6 percent increase from a year ago. This report does not analyze the impact of paying discount points on interest rate reductions or total loan costs.
- **Total loan costs, which include origination fees and discount points, also increased between 2022 and 2023, with faster increases for Hispanic white and Black borrowers.** The median total loan costs for home purchase loans in 2023 was \$6,684, up by 12.2 percent from \$5,954 in 2022. The median total loan costs for refinance loans reached \$7,329 in 2023, compared to \$4,979 in 2022—a 47.2 percent

⁶ This report is based on the analysis of the static consolidated application-level 2018, 2019, 2020, 2021, 2022, and 2023 HMDA data files. Some data points used in this article were modified or withheld in the public HMDA data.

increase. Notably, Hispanic white and Black borrowers experienced faster increases in the median total loan costs for home purchase loans in 2023 compared to 2022 than Asian and non-Hispanic white borrowers.

- **Rising interest rates throughout 2023 drove higher monthly mortgage payments.** The average monthly payment excluding taxes and insurance for borrowers taking out a conventional conforming 30-year fixed-rate mortgage rose from \$2,045 in December 2022 to \$2,295 in December 2023—a 12.2 percent increase in the span of one year. The increase in monthly payment was driven almost entirely by the rise in mortgage interest rates.
- **Despite the increase in the average monthly mortgage payment amount, the average debt-to-income ratio (DTI) and the share of home purchase applications denied due to high DTI have not significantly changed year-over-year.** The average DTI of home purchase borrowers and the share of home purchase borrowers denied due to high DTI remained elevated in 2023 but the upward trend that was observed in 2022 appears to have stabilized. This likely reflects the compositional shift of home purchase borrowers towards higher-income and away from lower-income borrowers.
- **Non-depository institutions continued to increase their share of closed-end originations.** Among non-depository institutions, independent mortgage companies originated significantly more loans than mortgage companies affiliated with depository institutions. In 2023, independent mortgage companies originated 61.9 percent (about 1.7 million) of all closed-end home purchase loans and 64.3 percent (about 355,000) of all closed-end refinance loans.

2. Mortgage applications and originations

In 2023, a total of 5,113 financial institutions—banks, savings associations, credit unions, and non-depository mortgage lenders—reported data on approximately 10 million applications and 5.7 million originations under HMDA. In contrast, in 2022, 4,460 financial institutions reported data on 14.3 million applications and 8.4 million originations under HMDA. Compared to 2022, the number of reporters increased by 653, or about 14.6 percent. The increase in the number of reporters is likely due to a decrease in the reporting volume threshold.⁷ On the other hand, despite the increase in the number of reporting institutions, the total number of applications and originations dropped significantly in 2023. The total number of reported applications decreased by about 4.3 million or 30.3 percent and the number of originations decreased by 2.7 million or 32.2 percent.⁸

The bottom rows of Tables 1A, 1B, 1C, 1D, and 1E, present the total number of records, including total applications, originations, purchased loans, and requests for approvals reported each year from 2018 to 2023. The top panels of the tables break down the total records by types of transactions: closed-end excluding reverse mortgages, open-end lines of credit excluding reverse mortgages (HELOCs⁹), or reverse mortgages. Within closed-end transactions, we further divide by property type: a site-built single-family unit, manufactured home, or multifamily transactions. We also categorize by loan purpose: Table 1A covers home purchase, Table 1B refinance, Table 1C home improvement, Table 1D other purpose, and Table 1E the totals for all loan purposes. The closed-end site-built single-family originations are then disaggregated by lien status (*e.g.*, first lien, junior lien) and occupancy types (*e.g.*, principal residence, second

⁷ On September 23, 2022, the United States District Court for the District of Columbia vacated the 2020 HMDA Rule as to the increased loan-volume reporting threshold for closed-end mortgage loans. As a result of the order, the threshold for reporting data about closed-end mortgage loans is 25, the threshold established by the 2015 HMDA Rule. The CFPB and other Federal financial regulators issued statements indicating that they did not intend to initiate enforcement actions or cite HMDA violations for failures to report closed-end mortgage loan data collected in 2022, 2021, or 2020 for institutions that met Regulation C's other coverage requirements and originated at least 25 closed-end mortgage loans in each of the two preceding calendar years but fewer than 100 closed-end mortgage loans in either or both of the two preceding calendar years. In practice, this means 2023 is the first year since 2019 that institutions originating less than 100 closed-end mortgage loans reported closed-end data.

⁸ Throughout the rest of the report, calculations in the text are based on precise data values. Using rounded numbers from the tables may lead to different values due to rounding errors.

⁹ Open-end lines of credit secured by dwellings (excluding reverse mortgages) are commonly known as home equity lines of credit, or HELOCs. In the rest of the report, where it is applicable, we have used the term HELOC in lieu of open-ended lines of credit excluding reverse mortgage. Beginning with the data collected in 2018, the reporting of HELOCs became mandatory rather than optional.

residence, investment property). Then, the first-lien, principal-residence originations are further disaggregated by whether they are conventional loans or not. Within the conventional loan category, we disaggregate by whether the loan is conforming or jumbo. Within the non-conventional loan category, we disaggregate by loans insured or guaranteed by the Federal Housing Administration (FHA), the Department of Veterans Affairs (VA), or the Department of Agriculture’s Rural Housing Service or Farm Service Agency (RHS/FSA). For manufactured home originations, we disaggregate by whether manufactured home loans are secured by land (non-chattel loans) or not secured by land (chattel loans).¹⁰

Lenders reported approximately 4.4 million closed-end site-built single-family originations in 2023, a 34.2 percent decrease from 6.7 million originations in 2022. This follows 50.9 percent decrease from 2021 to 2022. Lenders also reported around 7.2 million closed-end site-built single-family applications.

In 2023, about 170,000 loans secured by manufactured homes were originated, compared to 189,000 such loans in 2022. About 141,000 manufactured home loans were originated for home purchase, largely similar to 142,000 in 2022. Among them, about 71,000 were secured by both a manufactured home and land, while 63,000 were secured by a manufactured home but not land. In 2023, about 21,000 manufactured home loans were originated for refinance purpose, down by 47.5 percent from 41,000 in 2022.

The HMDA data also include information on loans purchased by reporting institutions during the reporting year, although the purchased loans may have been originated before 2023. Table 1E shows that financial institutions purchased 1.3 million loans from other institutions in 2023, an 18.9 percent decrease from 2022, smaller than the decrease in reported origination volume percentage wise

¹⁰ Manufactured-home lending differs from lending for site-built homes. Furthermore, even among the manufactured home loans, chattel-secured lending differs greatly from those that are not chattel secured. Chattel-secured lending typically carries higher interest rates and shorter terms to maturity. The rest of this article focuses almost entirely on site-built mortgage originations, which constitute most originations. For more information on manufactured housing, see “Manufactured Housing Finance: New insights from the Home Mortgage Disclosure Act,” available at <https://www.consumerfinance.gov/data-research/research-reports/manufactured-housing-finance-new-insights-hmda/>.

TABLE 1A: HOME PURCHASE LOAN APPLICATIONS, ORIGINATIONS, PRE-APPROVALS, AND LOAN PURCHASES (IN THOUSANDS)

	2018	2019	2020	2021	2022	2023
A) Closed-end excluding reverse mortgage						
A.1) SITE BUILT 1-4 FAMILY	5,652	5,837	6,453	6,977	5,852	4,614
A.1.a) Applications						
A.1.b) Originations	4,136	4,307	4,693	5,127	4,129	3,248
A.1.b.i) First lien, principal residence	3,594	3,736	4,101	4,378	3,533	2,798
A.1.b.i.1) Conventional ⁽²⁾	2,410	2,489	2,755	3,097	2,542	1,914
A.1.b.i.1.a) Conforming	2,222	2,311	2,591	2,846	2,344	1,816
A.1.b.i.1.b) Jumbo	188	178	164	251	198	98
A.1.b.i.2) Nonconventional	1,184	1,247	1,346	1,281	991	883
A.1.b.i.2.a) FHA	712	752	796	754	576	554
A.1.b.i.2.b) VA	370	397	426	422	362	297
A.1.b.i.2.c) FSA/RHS	102	98	124	104	54	32
A.1.b.ii) First lien, Second residence	173	178	227	256	148	89
A.1.b.iii) First lien, investment property	286	293	268	399	373	276
A.1.b.iv) Junior lien, all occupancy types	83	100	98	94	74	85
A.2.a) <u>MANUFACTURED HOMES:</u> Applications	415	445	505	542	557	565
A.2.b) <u>MANUFACTURED HOMES:</u> Originations	125	128	137	148	142	141
A.2.b.i) Manufactured home loans secured by land	64	67	71	82	79	71
A.2.b.ii) Manufactured home loans not secured by land	49	52	57	59	56	63
A.2.b.iii) Land secured status unknown	12	10	9	8	7	7
A.3.a) MULTIFAMILY ⁽³⁾ : Applications	28	29	24	32	32	20
A.3.b) MULTIFAMILY: Originations	22	23	19	27	27	16
B.1) Open-end excluding reverse mortgage: Applications	110	98	92	103	127	88
B.2) Open-end excluding reverse mortgage: Originations	60	52	52	58	66	42
C.1) Reverse mortgage: Applications	3	3	3	4	2	3
C.2) Reverse mortgage: Originations	2	2	2	4	2	2
Total applications	6,208	6,412	7,077	7,659	6,570	5,289
Total originations	4,345	4,513	4,904	5,364	4,366	3,449
Purchased loans	1,386	1,396	1,189	1,374	1,143	1,018
Requests for preapproval ⁽⁴⁾	467	445	366	406	475	442
Requests for preapproval that were approved but not acted on	75	74	71	96	129	171
Requests for preapproval that were denied	102	77	58	53	72	62

NOTE: Components may not sum to totals because of rounding. Applications include those withdrawn and those closed for incompleteness. FHA is Federal Housing Administration; VA is U.S. Department of Veterans Affairs; FSA is Farm Service Agency; RHS is Rural Housing Service.

(1) The "Total" columns represent the sum of Home Purchase, Refinance, Home Improvement, and Other Purpose columns. The sum of individual columns may not sum to Total columns because a small number of records reported loan purpose as "NA". For instance, in 2023 HMDA data, a little over 1,200 originations had loan purpose reported as "NA", likely due to reporting errors. In addition, for purchased loans where the origination occurred before January 1, 2018, reporters are allowed to report the loan purpose data point as "NA". About 113,000, 68,000, and 53,000 purchased loans had loan purpose reported as "NA" in 2021, 2022, and 2023 HMDA data respectively.

(2) The sum of conventional conforming and conventional jumbo rows may not sum to the conventional row because a small number of records had an unknown conforming loan status. The conventional conforming loan is a closed-end forward mortgage (i.e., excluding reverse mortgage) transaction whose loan type is reported as conventional and whose loan amount is below the conforming loan limit, making it eligible to be purchased by Fannie Mae or Freddie Mac (collectively known as Government Sponsored Enterprises, or GSEs). The conventional non-conforming or jumbo loan is a closed-end forward mortgage transaction with its loan type

reported as conventional and a loan amount above the conforming loan limit, making it ineligible to be purchased by the GSEs.

(3) A multifamily property consists of site-built five or more units.

(4) Consists of all requests for preapproval. Preapprovals are not related to a specific property and thus are distinct from applications.

SOURCE: Here and in subsequent tables and figures, except as noted, Federal Financial Institutions Examination Council, data reported under the Home Mortgage Disclosure Act (www.ffiec.gov/hmda).

TABLE 1B: REFINANCE LOAN APPLICATIONS, ORIGINATIONS, PRE-APPROVALS, AND LOAN PURCHASES (IN THOUSANDS)

	2018	2019	2020	2021	2022	2023
A) Closed-end excluding reverse mortgage						
A.1) SITE BUILT 1-4 FAMILY	3,708	5,803	13,216	13,097	4,330	1,749
A.1.a) Applications						
A.1.b) Originations	1,880	3,381	8,423	8,280	2,220	796
A.1.b.i) First lien, principal residence	1,605	3,052	7,849	7,605	1,902	553
A.1.b.i.1) Conventional ⁽²⁾	1,245	2,292	6,416	6,309	1,528	350
A.1.b.i.1.a) Conforming	1,180	2,144	6,227	6,066	1,468	341
A.1.b.i.1.b) Jumbo	65	148	189	242	59	10
A.1.b.i.2) Nonconventional	359	760	1,433	1,297	375	203
A.1.b.i.2.a) FHA	188	343	485	514	192	134
A.1.b.i.2.b) VA	170	415	938	774	182	69
A.1.b.i.2.c) FSA/RHS	1	2	10	8	1	0
A.1.b.ii) First lien, Second residence	31	56	159	144	35	8
A.1.b.iii) First lien, investment property	172	203	370	495	211	101
A.1.b.iv) Junior lien, all occupancy types	72	69	45	36	72	134
A.2.a) MANUFACTURED HOMES: Applications	75	77	107	140	91	55
A.2.b) MANUFACTURED HOMES: Originations	34	38	56	75	41	21
A.2.b.i) Manufactured home loans secured by land	26	30	45	64	34	16
A.2.b.ii) Manufactured home loans not secured by land	2	2	4	5	2	2
A.2.b.iii) Land secured status unknown	6	7	7	7	5	4
A.3.a) MULTIFAMILY ⁽³⁾ : Applications	31	33	37	37	32	18
A.3.b) MULTIFAMILY: Originations	25	27	31	32	28	14
B.1) Open-end excluding reverse mortgage: Applications	554	508	416	376	455	384
B.2) Open-end excluding reverse mortgage: Originations	326	299	243	232	289	235
C.1) Reverse mortgage: Applications	49	48	58	75	82	29
C.2) Reverse mortgage: Originations	28	29	39	50	52	18
Total applications	4,418	6,469	13,834	13,725	4,992	2,234
Total originations	2,293	3,774	8,791	8,670	2,630	1,084
Purchased loans	358	674	1,189	1,172	315	146
Requests for preapproval ⁽⁴⁾	<1	<1	<1	<1	<1	<1
Requests for preapproval that were approved but not acted on	<1	<1	<1	<1	<1	<1
Requests for preapproval that were denied	<1	<1	<1	<1	<1	<1

NOTE: Components may not sum to totals because of rounding.

- (1) See Table 1A, note 1.
- (2) See Table 1A, note 2.
- (3) See Table 1A, note 3.
- (4) See Table 1A, note 4.

TABLE 1C: HOME IMPROVEMENT LOAN APPLICATIONS, ORIGINATIONS, PRE-APPROVALS, AND LOAN PURCHASES (IN THOUSANDS)

	2018	2019	2020	2021	2022	2023
A) Closed-end excluding reverse mortgage						
A.1) SITE BUILT 1-4 FAMILY	343	340	289	303	374	357
A.1.a) Applications						
A.1.b) Originations	180	170	142	152	192	173
A.1.b.i) First lien, principal residence	70	66	72	77	57	37
A.1.b.i.1) Conventional ⁽²⁾	60	59	68	73	54	35
A.1.b.i.1.a) Conforming	59	57	67	71	53	35
A.1.b.i.1.b) Jumbo	2	1	1	2	2	1
A.1.b.i.2) Nonconventional	9	7	4	4	3	2
A.1.b.i.2.a) FHA	6	5	2	2	2	2
A.1.b.i.2.b) VA	3	2	2	2	1	<1
A.1.b.i.2.c) FSA/RHS	<1	<1	<1	<1	<1	<1
A.1.b.ii) First lien, Second residence	2	2	2	2	3	1
A.1.b.iii) First lien, investment property	13	14	11	13	12	11
A.1.b.iv) Junior lien, all occupancy types	95	88	57	60	121	124
A.2.a) MANUFACTURED HOMES: Applications	6	6	5	5	7	8
A.2.b) MANUFACTURED HOMES: Originations	3	3	2	2	3	3
A.2.b.i) Manufactured home loans secured by land	2	2	1	2	2	2
A.2.b.ii) Manufactured home loans not secured by land	<1	<1	<1	<1	<1	<1
A.2.b.iii) Land secured status unknown	1	1	1	1	1	1
A.3.a) MULTIFAMILY ⁽³⁾ : Applications	2	2	1	2	2	2
A.3.b) MULTIFAMILY: Originations	2	2	1	1	2	2
B.1) Open-end excluding reverse mortgage: Applications	828	793	619	751	1,089	848
B.2) Open-end excluding reverse mortgage: Originations	384	366	310	390	584	424
C.1) Reverse mortgage: Applications	1	1	1	2	2	2
C.2) Reverse mortgage: Originations	1	1	1	2	1	1
Total applications	1,181	1,143	915	1,063	1,475	1,218
Total originations	570	541	456	547	783	604
Purchased loans	15	8	7	7	10	15
Requests for preapproval ⁽⁴⁾	<1	<1	<1	<1	<1	<1
Requests for preapproval that were approved but not acted on	<1	<1	<1	<1	<1	<1
Requests for preapproval that were denied	<1	<1	<1	<1	<1	<1

NOTE: Components may not sum to totals because of rounding.

- (1) See Table 1A, note 1.
- (2) See Table 1A, note 2.
- (3) See Table 1A, note 3.
- (4) See Table 1A, note 4.

TABLE 1D: OTHER PURPOSE LOAN APPLICATIONS, ORIGINATIONS, PRE-APPROVALS, AND LOAN PURCHASES (IN THOUSANDS)

	2018	2019	2020	2021	2022	2023
A) Closed-end excluding reverse mortgage						
A.1) SITE BUILT 1-4 FAMILY	344	378	303	319	462	519
A.1.a) Applications						
A.1.b) Originations	149	160	121	136	187	207
A.1.b.i) First lien, principal residence	61	70	66	77	72	59
A.1.b.i.1) Conventional ⁽²⁾	57	65	64	75	68	52
A.1.b.i.1.a) Conforming	52	60	58	65	59	49
A.1.b.i.1.b) Jumbo	5	5	6	10	8	3
A.1.b.i.2) Nonconventional	4	5	3	3	4	7
A.1.b.i.2.a) FHA	3	4	2	2	4	6
A.1.b.i.2.b) VA	<1	1	<1	1	<1	1
A.1.b.i.2.c) FSA/RHS	<1	<1	<1	<1	<1	<1
A.1.b.ii) First lien, Second residence	5	5	6	10	9	4
A.1.b.iii) First lien, investment property	11	10	8	11	13	12
A.1.b.iv) Junior lien, all occupancy types	73	75	41	39	93	132
A.2.a) MANUFACTURED HOMES: Applications	7	8	6	6	8	12
A.2.b) MANUFACTURED HOMES: Originations	3	3	2	3	3	5
A.2.b.i) Manufactured home loans secured by land	2	2	1	1	2	3
A.2.b.ii) Manufactured home loans not secured by land	<1	<1	<1	<1	<1	<1
A.2.b.iii) Land secured status unknown	1	1	1	1	1	1
A.3.a) MULTIFAMILY ⁽³⁾ : Applications	1	1	1	1	1	1
A.3.b) MULTIFAMILY: Originations	<1	<1	1	<1	<1	<1
B.1) Open-end excluding reverse mortgage: Applications	763	698	527	532	804	706
B.2) Open-end excluding reverse mortgage: Originations	352	324	264	282	419	338
C.1) Reverse mortgage: Applications	4	3	2	4	6	7
C.2) Reverse mortgage: Originations	3	2	2	3	4	4
Total applications	1,120	1,088	839	861	1,281	1,244
Total originations	508	490	389	424	613	555
Purchased loans	10	11	12	13	21	30
Requests for preapproval ⁽⁴⁾	<1	<1	<1	<1	<1	<1
Requests for preapproval that were approved but not acted on	<1	<1	<1	<1	<1	<1
Requests for preapproval that were denied	<1	<1	<1	<1	<1	<1

NOTE: Components may not sum to totals because of rounding.

- (1) See Table 1A, note 1.
- (2) See Table 1A, note 2.
- (3) See Table 1A, note 3.
- (4) See Table 1A, note 4.

TABLE 1E: TOTAL APPLICATIONS, ORIGINATIONS, PRE-APPROVALS, AND LOAN PURCHASES (IN THOUSANDS)

	2018	2019	2020	2021	2022	2023
A) Closed-end excluding reverse mortgage						
A.1) SITE BUILT 1-4 FAMILY	10,060	12,373	20,262	20,700	11,021	7,240
A.1.a) Applications						
A.1.b) Originations	6,349	8,023	13,380	13,696	6,729	4,425
A.1.b.i) First lien, principal residence	5,330	6,928	12,088	12,137	5,565	3,447
A.1.b.i.1) Conventional ⁽²⁾	3,774	4,907	9,303	9,553	4,192	2,351
A.1.b.i.1.a) Conforming	3,514	4,575	8,942	9,048	3,925	2,240
A.1.b.i.1.b) Jumbo	259	332	360	505	267	111
A.1.b.i.2) Nonconventional	1,556	2,021	2,785	2,584	1,373	1,095
A.1.b.i.2.a) FHA	909	1,106	1,286	1,272	773	696
A.1.b.i.2.b) VA	544	814	1,366	1,199	545	367
A.1.b.i.2.c) FSA/RHS	103	101	133	113	55	32
A.1.b.ii) First lien, Second residence	212	241	394	413	195	103
A.1.b.iii) First lien, investment property	484	522	657	919	610	401
A.1.b.iv) Junior lien, all occupancy types	323	332	240	228	360	475
A.2.a) MANUFACTURED HOMES: Applications	504	536	622	694	663	639
A.2.b) MANUFACTURED HOMES: Originations	165	173	197	228	189	170
A.2.b.i) Manufactured home loans secured by land	94	101	118	148	117	92
A.2.b.ii) Manufactured home loans not secured by land	51	54	61	64	59	65
A.2.b.iii) Land secured status unknown	20	18	18	16	14	13
A.3.a) MULTIFAMILY ⁽³⁾ : Applications	61	65	64	72	68	41
A.3.b) MULTIFAMILY: Originations	50	53	52	61	58	32
B.1) Open-end excluding reverse mortgage: Applications	2,258	2,100	1,655	1,762	2,476	2,027
B.2) Open-end excluding reverse mortgage: Originations	1,124	1,042	869	962	1,358	1,039
C.1) Reverse mortgage: Applications	57	55	64	85	93	40
C.2) Reverse mortgage: Originations	33	35	43	59	59	25
Total applications	12,940	15,129	22,667	23,313	14,322	9,987
Total originations	7,721	9,325	14,541	15,007	8,394	5,692
Purchased loans	2,003	2,266	2,756	2,680	1,558	1,263
Requests for preapproval ⁽⁴⁾	467	445	366	406	475	442
Requests for preapproval that were approved but not acted on	75	74	71	96	129	171
Requests for preapproval that were denied	77	58	53	72	62	77

NOTE: Components may not sum to totals because of rounding.

(1) See Table 1A, note 1.

(2) See Table 1A, note 2.

(3) See Table 1A, note 3.

(4) See Table 1A, note 4.

The significant decline in application and origination volumes in 2023 occurred in both home purchase and refinance lending but was more prominent in refinance. Compared to a year ago, the refinance loans in closed-end site-built single-family originations fell from 2.2 million in 2022 to 796,000 in 2023, which is approximately a 64.2 percent decrease. Refinance applications for site-built single-family properties also decreased from 4.3 million in 2022 to 1.7 million in 2023.

Refinance originations decreased for all types of closed-end mortgages¹¹ secured by first-lien principal residence. The number of refinance loans for conventional conforming and jumbo loans decreased by 77.1 percent in 2023. The number of refinance loans for VA loans decreased by about 62.2 percent, while that for FHA loans decreased by about 30.2 percent.

In 2023, there were 3.2 million home purchase originations, compared with 4.1 million in 2022. This represents a 21.3 percent decrease from 2022, which was a continuation of a decreasing trend from 2021. When limited to the first-lien principal residence, the home purchase loan originations decreased by 20.8 percent, from 3.5 million in 2022 to 2.8 million in 2023. While all the categories saw a decrease in volume, conventional jumbo loans saw the biggest decrease of 50.2 percent and FHA loans saw the smallest decrease at 3.8 percent.

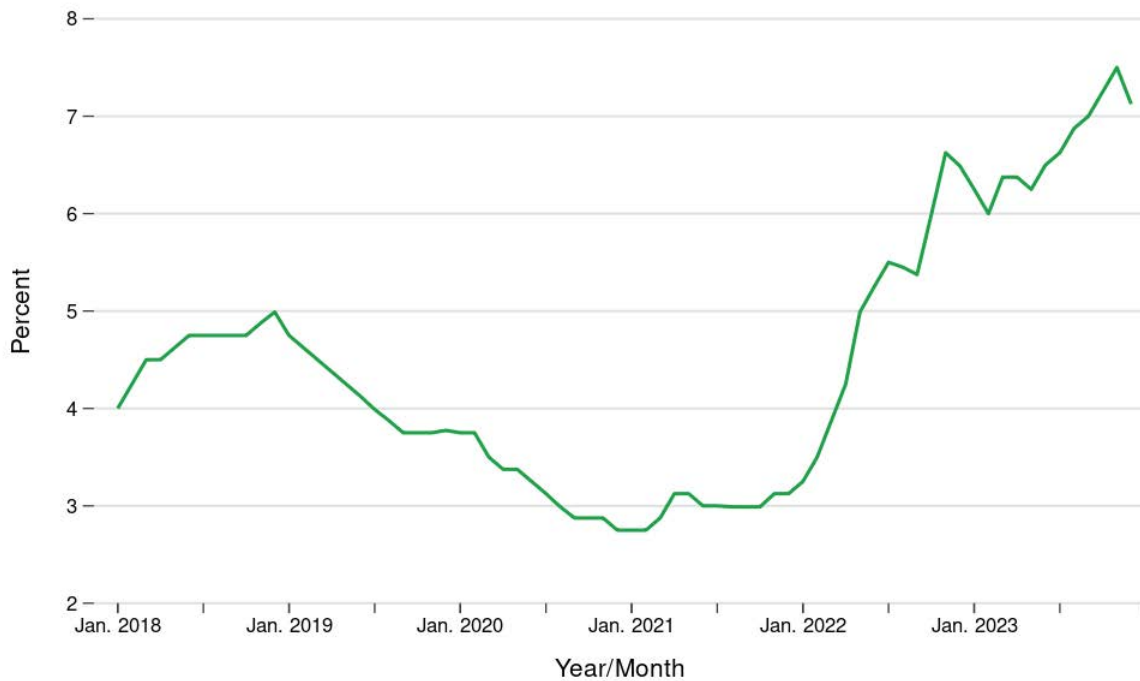
Continuing the trend of the past two years, market interest rates continued to rise, which explains the declines in home purchase and refinance applications and loans. Figure 1 plots the monthly median interest rates for 30-year fixed-rate closed-end (excluding reverse mortgages) conventional conforming loans originated to prime borrowers secured by first-lien principal residence.¹² The median interest rate is computed from originated loans in the 2018-2023 HMDA data and the month is based on the month of the action taken date. As the figure shows, after a short respite near the end of 2022, the mortgage interest rate resumed its rise through much of 2023 until the slight dip near the end of the year. Figure 1 generally aligns with the Freddie Mac Primary Mortgage Market Survey, which covers first-lien prime conventional conforming home purchase mortgages with a combined loan-to-value (CLTV) of 80 percent.¹³

¹¹ Mortgages secured by closed-end site-built single-family first-lien principal residence.

¹² Prime borrowers are defined as borrowers with a credit score of at least 720 and CLTV of around 80 percent (79 percent \leq CLTV < 80 percent).

¹³ See <https://www.freddiemac.com/pmms>.

FIGURE 1: MONTHLY MEDIAN INTEREST RATE OF 30-YEAR FIXED RATE CONVENTIONAL CONFORMING LOANS



NOTE: Monthly median interest rate from HMDA on 30-year fixed-rate, conventional conforming, home purchase, closed-end loans secured by site-built single-family homes to prime borrowers between January 2018 and December 2023. Limited to borrowers with credit score ≥ 720 and $79\% \leq \text{CLTV} \leq 80\%$, for a 1st lien, principal residence. [Underlying data can be found in appendix table A1.](#)

The total number of HELOC originations and applications decreased in 2023 compared to 2022. For example, the total number of HELOC originations fell from 1.4 million in 2022 to 1 million in 2023, which was a 23.5 percent decrease. On the other hand, the number of HELOC reporters increased from 1,150 in 2022 to 1,221 in 2023, and about 29.2 percent of HELOC reporters originated between 100 and 499 HELOCs in 2023, compared to only 23.1 percent in 2022 (Table 5B).¹⁴ Table 5B in Section 6 below gives a more detailed breakdown of the number of HELOC reporters by origination volume.

¹⁴ The numbers are from Table 5B in this year’s and the last year’s report. Note that the HMDA reporting thresholds are based on the origination volumes of the preceding years, while the numbers referred in this sentence are the originations in the current year. It is possible that some financial institutions exceeded the reporting threshold based on past years’ activities but in the current reporting year may have actually originated fewer loans or line of credits than the reporting threshold values. It is also possible that some financial institutions may have voluntarily reported even though they fell below the reporting threshold based on the past activities.

The decrease in HELOC origination volume in 2023, despite the increase in the number of reporters, is in sharp contrast with the increase of HELOC origination volume in 2022. As discussed in the 2022 Mortgage Market report,¹⁵ even after accounting for the increase in the number of open-end reporters from 2021 to 2022 due to the reporting threshold change, the HELOC origination volume grew by 33.3 percent from 2021 to 2022. We surmised then that most of that growth was likely due to some consumers resorting to HELOCs instead of cash-out refinance loans to extract home equity in a high interest rate environment. However, as the interest rate continued to rise in 2023, it appears that the number of home equity extractions using HELOC has also declined.

¹⁵ “2022 Mortgage Market Activity and Trends,” available at <https://www.consumerfinance.gov/data-research/research-reports/data-point-2022-mortgage-market-activity-trends/>.

3. Mortgage outcomes by demographic groups and loan types

The HMDA data are a key resource for policymakers and the public to understand the distribution of mortgage credit across demographic groups. Tables 2 through 4 provide information on loan shares, product usage, certain mortgage/borrower characteristics, pricing information, and denial rates by applicant income, neighborhood income, and applicant race and ethnicity. Tables 2 through 4 focus on closed-end first-lien home purchase and refinance loans secured by site-built one-to-four-family, principal residence properties, which accounted for approximately 58.9 percent of all HMDA originations excluding purchased loans in 2023.

3.1 Distribution of home loans

Tables 2A and 2B present different groups' shares of closed-end (excluding reverse mortgages) site-built one-to-four-family, first lien, principal residence home purchase and refinance loans and how these shares have changed since 2018. While discussing the shares, it is important to note that overall, both the number of home purchase and refinance originations have declined significantly in 2023 from 2022, with the closed-end site-built single-family home purchase originations declining by 21.3 percent and that of refinance originations falling by 64.2 percent. As a result, even though the shares of originations for some groups among all originations increased in 2023, in terms of the absolute number of originations, we have seen a decline across all groups.

Black borrowers' share of home purchase loans increased from 6.8 percent in 2018 to 8.1 percent in 2023, and the share for Hispanic white borrowers increased from 8.9 percent in 2018 to 9.9 percent in 2023. For non-Hispanic white borrowers, their share of home purchase loans was 52.7 percent in 2023, down from 62.0 percent in 2018. On the other hand, Asian borrowers' share of home purchase loans increased from 5.9 percent in 2018 to 7.7 percent in 2023.

Non-Hispanic white borrowers accounted for about 58.1 percent of all refinance loans in 2023, up slightly from 57.3 percent in 2022. Asian borrowers made up the smallest share of refinance loans in 2023 at 2.6 percent, down slightly from their share of 3.6 percent in 2022. Hispanic white borrowers' share of refinance loans also decreased from 7.1 percent in 2022 to 6.5 percent

in 2023. On the other hand, the share of Black borrowers' refinance loans increased to their highest levels since 2018 after a low in 2020. Black borrowers' share of refinance loans increased from 8.1 percent in 2022 to 10.2 percent in 2023.

The share of home purchase loans for low- or moderate-income (LMI) borrowers slightly decreased from 27.8 percent in 2022 to 26 percent in 2023, while high-income borrowers' share slightly increased from 43.8 percent to 45.2 percent¹⁶. On the other hand, refinance loans to LMI borrowers account for about 38.6 percent of refinance loans in 2023, up from 35.16 percent in 2022, whereas high-income borrowers' share decreased from 34.7 percent to 32 percent.

The share of home purchase loans for low- or moderate-income (LMI) neighborhoods increased slightly from 18.5 percent in 2022 to 19.3 percent in 2023, while high-income neighborhoods' share decreased slightly from 36.7 percent to 35.7 percent¹⁷. On the other hand, the share of refinance loans to LMI neighborhoods rose from 17.7 percent in 2022 to 20.3 percent in 2023, whereas high-income neighborhoods' share decreased from 35.6 percent to 30.3 percents.

Taken together, Black, and non-Hispanic white borrowers, borrowers of low- or moderate-income, and borrowers taking out loans secured with properties in LMI neighborhoods accounted for a larger share of refinance loans in 2023, against the backdrop of fast rising interest rates and an overall sharp decline of the refinance volume. Furthermore, just like in 2022, cashout refinance made up overwhelming majority of the refinance volume. Section 4 below breaks down the refinance results by cash-out and non-cash-out categories and sheds light on these issues.

¹⁶ In accordance with the definitions used by the federal bank supervisory agencies to enforce the Community Reinvestment Act, LMI borrowers are defined as those with incomes less than 80 percent of the estimated current area median family income (AMFI). Middle-income borrowers have incomes of at least 80 percent and less than 120 percent of AMFI, and high-income borrowers have incomes of at least 120 percent of AMFI. AMFI is estimated based on the incomes of residents of the metropolitan area or nonmetropolitan portion of the state in which the loan-securing property is located. For AMFI estimates, see Federal Financial Institutions Examination Council (2020), "FFIEC Median Family Income Report," available at <https://www.ffiec.gov/Medianincome.htm>. A very small percentage of records had income reported as zero or negative. They are included in the LMI group.

¹⁷ Definitions for LMI, middle-income, and high-income neighborhoods are identical to those for LMI, middle-income, and high-income borrowers, but are based on the ratio of census-tract median family income to AMFI measured from the census data.

TABLE 2A: DISTRIBUTION OF HOME PURCHASE LOANS, BY BORROWER AND NEIGHBORHOOD CHARACTERISTICS (PERCENT EXCEPT AS NOTED)

	2018	2019	2020	2021	2022	2023
Race/Ethnicity ⁽¹⁾ : Asian	5.9	5.7	5.5	7.1	7.6	7.7
Race/Ethnicity: Black or African American	6.8	7.0	7.3	7.9	8.1	8.1
Race/Ethnicity: Hispanic White	8.9	9.2	9.1	9.2	9.1	9.9
Race/Ethnicity: Non-Hispanic White	62.0	60.3	59.1	55.6	54.4	52.7
Race/Ethnicity: Other Minority ⁽²⁾	0.8	0.8	0.9	1.0	1.0	1.0
Race/Ethnicity: Joint	3.6	3.7	3.9	4.1	4.4	4.8
Race/Ethnicity: Missing	12.0	13.3	14.1	15.1	15.4	15.6
Race/Ethnicity: All	100	100	100	100	100	100
Borrower income ⁽³⁾ : Low or moderate	28.0	28.6	30.4	28.7	27.8	26.0
Borrower income: Middle	26.7	27.2	27.4	27.0	27.3	27.9
Borrower income: High	43.9	43.1	41.2	43.2	43.8	45.2
Borrower income: Income not used or not applicable	1.3	1.2	1.1	1.0	1.0	0.9
Borrower income: All	100	100	100	100	100	100
Neighborhood income ⁽⁴⁾ : Low or moderate	16.5	16.5	16.1	17.1	18.5	19.3
Neighborhood income: Middle	44.2	44.3	44.3	44.3	44.2	44.4
Neighborhood income: High	38.8	38.9	39.3	38.4	36.7	35.7
Neighborhood income: All	100	100	100	100	100	100
Total (in thousands)	3,594	3,736	4,101	4,378	3,533	2798

NOTE: Closed-end (excluding reverse mortgage), first-lien home purchase mortgages secured by site-built, one- to four-family homes used for a principal residence.

(1) Applications are placed in one category for race and ethnicity. The application is designated as "joint" if one applicant was reported as white and the other was reported as one or more minority races or if the application is designated as white with one Hispanic applicant and one non-Hispanic applicant. If there are two applicants and each reports a different minority race, the application is designated as two or more minority races. If an applicant reports two races and one is white, that applicant is categorized under the minority race. Otherwise, the applicant is categorized under the first race reported. "Missing" refers to applications in which the race of the applicant(s) has not been reported or is not applicable or the application is categorized as white, but ethnicity has not been reported.

(2) Consists of applications by American Indians or Alaska Natives, Native Hawaiians or other Pacific Islanders, and borrowers reporting two or more minority races.

(3) The categories for the borrower-income group are as follows: Low- or moderate-income (or LMI) borrowers have income that is less than 80 percent of estimated current area median family income (AMFI), middle-income borrowers have income that is at least 80 percent and less than 120 percent of AMFI, and high-income borrowers have income that is at least 120 percent of AMFI.

(4) The categories for the neighborhood-income group are based on the ratio of census-tract median family income to area median family income published by FFIEC (available at <https://www.ffiec.gov/Medianincome.htm>), and the three categories have the same cutoffs as the borrower-income groups (see note 3).

TABLE 2B: DISTRIBUTION OF REFINANCE LOANS, BY BORROWER AND NEIGHBORHOOD CHARACTERISTICS (PERCENT EXCEPT AS NOTED)

	2018	2019	2020	2021	2022	2023
Race/Ethnicity ⁽¹⁾ : Asian	3.7	5.5	6.7	6.0	3.6	2.6
Race/Ethnicity: Black or African American	6.2	5.3	4.2	5.4	8.1	10.2
Race/Ethnicity: Hispanic White	6.8	6.2	5.3	6.1	7.1	6.5
Race/Ethnicity: Non-Hispanic White	63.1	60.9	61.0	58.3	57.3	58.1
Race/Ethnicity: Other Minority ⁽²⁾	0.9	0.8	0.7	0.8	0.9	1.0
Race/Ethnicity: Joint	2.9	3.3	3.5	3.4	3.0	2.6
Race/Ethnicity: Missing	16.3	18.0	18.5	19.9	20	19.1
Race/Ethnicity: All	100	100	100	100	100	100
Borrower income ⁽³⁾ : Low or moderate	29.0	23.1	18.9	23.9	35.1	38.6
Borrower income: Middle	25.2	22.1	21.8	23.2	26.6	26.9
Borrower income: High	41.3	43.5	45.1	42.0	34.7	32.0
Borrower income: Income not used or not applicable	4.4	11.2	14.2	10.9	3.7	2.5
Borrower income: All	100	100	100	100	100	100
Neighborhood income ⁽⁴⁾ : Low or moderate	16.3	14.0	11.7	13.6	17.7	20.3
Neighborhood income: Middle	45.6	43.0	41.1	42.8	46.2	48.8
Neighborhood income: High	37.7	42.7	47.0	43.5	35.6	30.3
Neighborhood income: All	100	100	100	100	100	100
Total (in thousands)	1,605	3,052	7,849	7,605	1,902	553

NOTE: Closed-end (excluding reverse mortgage), first-lien refinance mortgages secured by site-built, one- to four-family homes used for a principal residence.

(1) See Table 2A, note 1.

(2) See Table 2A, note 2.

(3) See Table 2A, note 3.

(4) See Table 2A, note 4.

3.2 Mortgage characteristics of home loans

In the previous section, we presented the distribution of home purchase and refinance loans by borrower's race and ethnicity, borrower's income, and neighborhood income. In this section, we further examine loan characteristics (loan amounts, interest rates, total loan costs) as well as borrower characteristics (credit scores) by borrower's race and ethnicity, borrower's income, neighborhood income, and loan types. Tables 3A, 3B, 3C, and 3D, show the median loan amount, credit scores of borrowers, interest rates, and total loan costs of home purchase loans for different racial/ethnic groups, borrower income, neighborhood income, and enhanced loan types over time.¹⁸ The sample is limited to closed-end (excluding reverse mortgages) first-lien mortgages for site-built one-to-four-family, principal residences with loan purpose being home purchase. Tables 3E, 3F, 3G, and 3H, present similar information for refinance loans.

The rapid rise of the median loan amounts for home purchase loans before 2022 has slowed down significantly in 2023. The median loan amount has been increasing from \$225,000 in 2018, but remained unchanged year-over-year at \$315,000 in 2023. For some subcategories, the median loan amount has decreased compared to 2022.¹⁹ Among different racial/ethnic groups, in 2023, Asian borrowers continued to take out home purchase loans with the largest median loan amount, with a median of about \$441,000, a decrease from a median loan amount of \$449,000 in 2022. In contrast, the median loan amount of home purchase loans for non-Hispanic white borrowers ranked below the median loan amounts of Hispanic white and Black borrowers, at approximately \$295,000. The median loan amount of home purchase loans for Hispanic white borrowers was \$304,000 in 2023, while the median loan amount of home purchase loans for Black borrowers was \$302,000.

Loan amounts vary by borrower income, neighborhood income, and loan types. In 2023, the median loan amount of home purchase loans for high-income borrowers was \$426,000, more than twice that of LMI borrowers. Similarly, the median loan amount of home purchase loans secured by properties in high-income areas was \$391,000, compared to \$255,000 in LMI neighborhoods. The home purchase jumbo loans have a median loan amount of \$1.2 million in

¹⁸ We report the medians instead of averages in Tables 3A and 3B because medians are more stable and less subject to outliers than averages. In general, the patterns of averages looked similar to the patterns in medians. Combining the transaction types (closed-end, open-end, reverse mortgage), loan types reported under HMDA (conventional, FHA, VA, RHS/FSA), conforming loan status based on the loan amount reported and the conforming loan limits published by the Federal Housing Finance Agency (FHFA), all single family loan application registers data can be grouped into seven categories: 1) Conventional Conforming; 2) Conventional Non-conforming or Jumbo; 3) FHA; 4) VA; 5) RHS/FSA; 6) HELOC; and 7) Reverse Mortgage. These categories are referred to as the "Enhanced Loan Types."

¹⁹ All dollar amounts are reported in nominal terms.

2023. In comparison, the median loan amounts of home purchase loans were \$172,000 for FSA/RHS loans and \$294,000 for FHA loans.

Not only did fewer borrowers take out refinance loans in 2023, for the borrowers who did, their average loan amount also declined from \$232,000 in 2022 to \$214,000 in 2023. Similar to home purchase loans, in 2023, the median loan amount of refinance loans for Asian borrowers was higher than other racial/ethnic groups, at approximately \$341,000, compared to \$206,000 for Black borrowers, \$222,000 for Hispanic white borrowers, and \$200,000 for non-Hispanic white borrowers. Compared to 2022, the median loan amounts for refinance loans decreased across all major racial/ethnic groups. These patterns are consistent with the compositional effects that low- or moderate-income borrowers as well as well loans secured by properties in LMI neighborhoods accounted for higher shares of refinance loans in 2023 with overall refinance loan volume declining.

Credit scores are widely used in mortgage underwriting and pricing. Where applicable, credit scores have been collected and reported in HMDA since 2018.²⁰ Table 3A shows that the median credit scores for closed-end home purchase mortgage loans secured by first-lien principal-residence site-built single-family properties have been increasing from 2018 through 2023, except for a slight decrease for Asian borrowers between 2021 and 2023. But the variations of median credit scores among different groups remain. Black and Hispanic white borrowers continued to have lower median credit scores than other racial/ethnic groups. The median credit score of Black borrowers who took out home purchase loans was 698 in 2023, and the median credit score of Hispanic white home purchase loan borrowers was 720. In comparison, the median credit scores of non-Hispanic white and Asian home purchase loan borrowers in 2023 were 754 and 763, respectively.

High-income home purchase borrowers have higher median credit scores than middle-income and LMI borrowers, and borrowers taking out home purchase loans secured by properties in high-income neighborhoods have higher median credits scores than borrowers in middle-income and LMI neighborhoods as well. In terms of loan types, the median credit score for home purchase jumbo loan borrowers was 776 in 2023 and the median credit score of conventional conforming home purchase loan borrowers was 762, while the median credit score of FHA home purchase loan borrowers was 673.

Consistent with the trend from 2022, the median credit scores of refinance loan borrowers are lower than those of home purchase loan borrowers in 2023. Prior to 2022, refinance loan

²⁰ To protect applicant and borrower privacy, credit score is excluded from the application-level HMDA data made available to the public.

borrowers generally had higher median credit scores than home purchase loan borrowers. The recent trend is likely due to the compositional effects mentioned above.

The median credit score of Black borrowers who refinanced in 2023 was 679, and the median credit score of Hispanic white refinance borrowers was 701. In comparison, the median credit scores of non-Hispanic white and Asian borrowers who refinanced in 2023 were 713 and 737, respectively. These all represented significant decreases from 2022, making 2023 the second year in a row where median credit scores among refinance loan borrowers decreased. The median credit score for jumbo refinance loan borrowers was 760 in 2023, compared to 736 for conventional conforming refinance loan borrowers. The median credit score of VA refinance loan borrowers declined from 2022 to 2023 and those of FHA and FSA/RHS refinance loan borrowers increased from 2022 to 2023.

The mortgage interest rate increased sharply during 2023. As a result, the median interest rate for home purchase loans secured by first-lien principal-residence site-built single-family properties was 6.500 in 2023, compared to 4.990 percent in 2022.

The variations in interest rates across different racial/ethnic groups and loan types remained in 2023. At 6.625 percent Hispanic white and non-Hispanic white borrowers paid the highest median interest rates for home purchase loans. The median interest rate for Asian borrowers was 6.375 percent and that for Black borrowers was 6.500 percent. Overall, all racial/ethnic groups saw a large increase in the median interest rate for home purchase loans in 2023. Conventional conforming loans had higher median interest rates than any other enhanced loan types, at 6.625 percent. On the other hand, jumbo and VA loans had the lowest median interest rate at 6.250 percent.

Total loan costs, a data point collected and reported under HMDA since 2018, represent the sum of origination fees that the lender charges, charges for the services that borrowers cannot shop for (e.g., appraisal fees or credit report fees), and charges for services borrowers can shop for such as settlement agent or title insurance fees.²¹ Discount points if paid, another data point collected and reported under HMDA beginning in 2018, is also included as a part of the total loan costs.

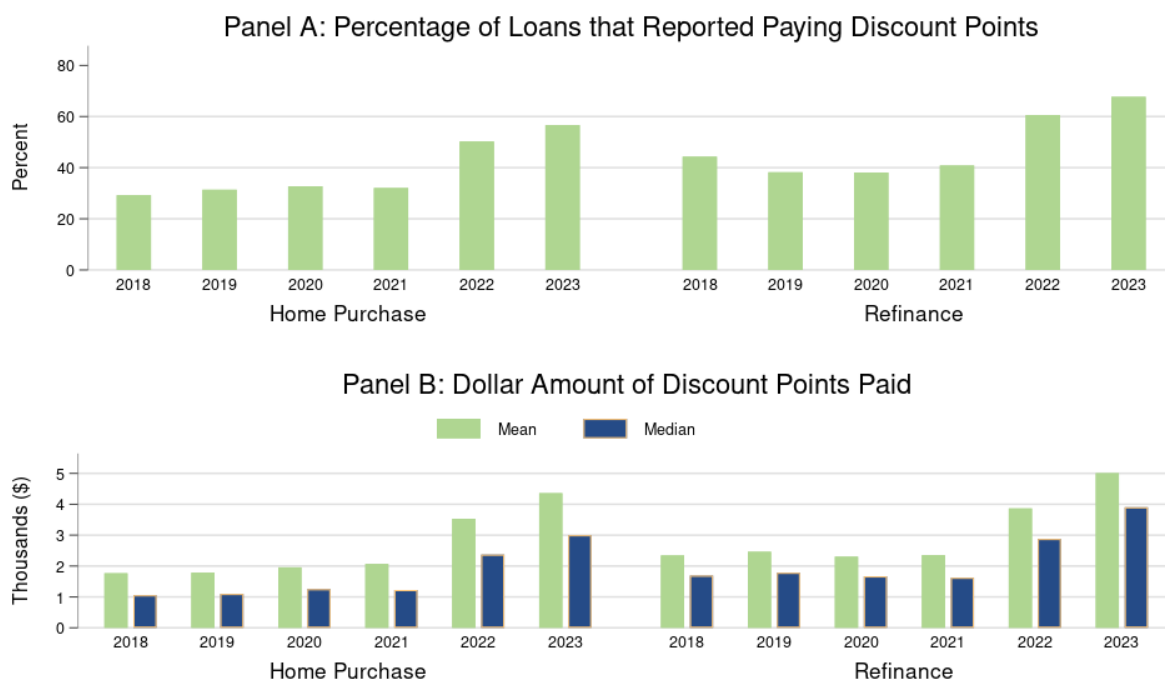
²¹ The total loan costs collected under HMDA only applies to originated loans that are subject to specified requirements in Regulation Z. It is limited to “buyer-paid” portions of the total loan costs on the TILA-RESPA Integrated Disclosure Rule (TRID) Closing Disclosure of applicable loans. In other words, under the HMDA reporting requirements, it includes the charges by the lenders as well as the charges by the third-party service providers in connection with obtaining the loan to the extent those are paid by a borrower rather than by a seller or other third party.

The median total loan costs for home purchase loans in 2023 was \$6,684, up by 12.3 percent from \$5,954 in 2022. The median total loan costs for refinance loans reached \$7,329 in 2023, compared to \$4,979 in 2022, representing a 47.2 percent increase.

Panel A of Figure 2 shows that a higher percentage of borrowers reported paying discount points in 2023 than in any other year since this data point was reported in HMDA. The sharp increase in the share of loans paying discount points started in 2022 and continued in 2023. For example, among first lien closed-end home purchase loans secured by single-family principal residence and not for commercial/business purpose, about 56.6 percent of loans paid some discount points in 2023. In contrast, the share of home purchase loans with positive discount points ranged from 29.2 percent in 2018 to 32.7 percent in 2021. Similarly, among first lien closed-end refinance loans secured by single-family principal residence and not for commercial/business purpose, the share of loans with positive discount points ranged from 38.1 percent in 2020 to 44.3 percent in 2018. In 2022, the share increased sharply to 60.6 percent and continued its upward trend in 2023 at 67.7 percent.

Borrowers who paid discount points also paid much more in dollar amounts compared to previous years. More specifically, as shown in Panel B of Figure 2, the median discount points paid for home purchases loans were about \$3,000 in 2023, while that in 2022 was \$2,370, \$1,225 in 2021, \$1,252 in 2020, \$1,098 in 2019 and \$1,054 in 2018. Similarly, a large increase was also observed in refinance loans. The median discount points paid for refinance loans were about \$3,902 in 2023, compared to \$2,878 in 2022, \$1,619 in 2021, \$1,667 in 2020, \$1,782 in 2019 and \$1,690 in 2018.

FIGURE 2: DISCOUNT POINTS



NOTE: Limited closed-end loans secured by site-built single-family homes, 1st lien principal residence, not for business or commercial purpose. [Underlying data can be found in appendix table A2.](#)

In 2023, the median Hispanic white borrower for home purchase loans paid \$9,080 in total loan costs, the highest median among all racial/ethnic groups, as in previous years. The next highest median total loan costs of home purchase loans were \$8,464 for Black borrowers, also similar to the patterns observed in previous years. In comparison, the median total loan costs of home purchase loans were \$5,911 for non-Hispanic white borrowers and \$6,625 for Asian borrowers. Notably, Hispanic white and Black borrowers also experienced higher increases in median total loan costs in 2023 relative to 2022 compared to Asian and non-Hispanic white borrowers, with an annual increase of 15.1 percent for Hispanic white borrowers and 12 percent for Black borrowers, compared to 8 percent for Asian borrowers and 10.5 percent for non-Hispanic white borrowers.

The median total loan costs of home purchase loans were higher for high-income borrowers (\$7,315) and middle-income borrowers (\$7,104) than LMI borrowers (\$5,521).²² On the other hand, the median total loan costs of home purchase loans were \$6,721 for loans secured by

²² Just as other statistics presented in this table, the discussion here does not control for differences in loan amount that may vary across income groups.

properties in LMI neighborhoods, \$6,552 for loans in middle-income neighborhoods and \$6,814 for loans in high-income neighborhoods.

Among various enhanced loan types for home purchase loans, FHA loans had the highest median total loan costs, at \$11,368, likely reflecting the required upfront mortgage insurance premium which could be a significant part of the total loan costs of FHA loans.²³ The median total loan costs were \$7,530 for VA home purchase loans. To the extent that Black and Hispanic white borrowers are more likely to take out FHA loans than Asian and non-Hispanic white borrowers, the high total loan costs of FHA loans could be contributing to higher median total loan costs for Black and Hispanic white borrowers as observed above.

The median total loan costs for refinance loans in 2023 was \$7,329. The median Black borrower who refinanced in 2023 paid \$8,462 in total loan costs, the highest median among all racial/ethnic groups for refinance loans. The next highest median total loan costs were \$7,715 for Hispanic white refinance loan borrowers. The median total loan costs of refinance loans were \$6,589 for non-Hispanic white borrowers and \$6,611 for Asian borrowers. Asian borrowers experienced the largest annual percentage increase in median total loan costs among all major racial/ethnic groups, with the growth rate of 50.6 percent.

The median total loan costs of refinance loans were lower for LMI borrowers (\$6,450) in comparison with middle-income borrowers (\$8,202) and high-income borrowers (\$8,380). Similarly, the median total loan costs of refinance loans were lower for loans secured by properties in LMI neighborhoods (\$7,116) than those in middle-income (\$7,340) or high-income neighborhoods (\$7,504). The pattern of median total loan costs for refinance loans by enhanced loan types was consistent with the pattern for home purchase loans, with FHA refinance loans having the highest loan costs.

²³ In the time period examined in this report, FHA charged an upfront mortgage insurance premium of 175 Basis Points (bps) (1.75%) of base loan amounts with the exception of a few limited programs and products, such as Hawaiian Home Lands and Indian Lands Programs. See FHA Single Family Housing Policy Handbook 4000.1 for more details. Such upfront mortgage insurance premium is included in the Closing Disclosure as one of the services that borrowers cannot shop for. If the upfront mortgage insurance premium is “borrower-paid,” it should be included as part of the Total Loan Costs that institutions report to HMDA.

TABLE 3A: MEDIAN LOAN AMOUNTS (THOUSANDS OF DOLLARS) OF HOME PURCHASE LOANS, BY BORROWER AND NEIGHBORHOOD CHARACTERISTICS AND ENHANCED LOAN TYPE

	2018	2019	2020	2021	2022	2023
Race/Ethnicity ⁽¹⁾ : Asian	333	340	362	414	449	441
Race/Ethnicity: Black or African American	204	217	236	264	297	302
Race/Ethnicity: Hispanic White	209	221	241	272	300	304
Race/Ethnicity: Non-Hispanic White	216	227	247	274	295	295
Race/Ethnicity: Other Minority ⁽²⁾	224	234	254	278	299	302
Race/Ethnicity: Joint	278	291	315	353	381	374
Race/Ethnicity: Missing	253	262	280	313	338	335
Borrower income ⁽³⁾ : Low or moderate	150	161	180	195	202	201
Borrower income: Middle	212	225	248	276	300	300
Borrower income: High	309	321	350	394	429	426
Borrower income: Income not used or not applicable	238	261	276	319	358	348
Neighborhood income ⁽⁴⁾ : Low or moderate	178	189	208	235	250	255
Neighborhood income: Middle	201	213	232	260	290	295
Neighborhood income: High	283	294	314	355	392	391
Enhanced Loan Type ⁽⁵⁾ : Conventional conforming	228	239	261	290	311	311
Enhanced Loan Type: Jumbo	745	785	891	948	1,017	1,151
Enhanced Loan Type: FHA	191	206	221	241	268	294
Enhanced Loan Type: VA	246	258	285	316	340	341
Enhanced Loan Type: FSA/RHS	137	145	162	172	172	172
Overall	225	237	256	289	315	315

NOTE: Closed-end (excluding reverse mortgages) home purchase first-lien mortgages secured by site-built one-to-four-family, principal-residence properties.

(1) See Table 2A, note 1.

(2) See Table 2A, note 2.

(3) See Table 2A, note 3.

(4) See Table 2A, note 4.

(5) The conventional conforming loan is a closed-end forward mortgage (*i.e.*, excluding reverse mortgages) transaction whose loan type is reported as conventional and whose loan amount is below the conforming loan limit, making it eligible to be purchased by Fannie Mae or Freddie Mac (collectively known as Government Sponsored Enterprises, or GSEs). The conventional non-conforming, or jumbo loan is a closed-end forward mortgage transaction with its loan type reported as conventional and a loan amount above the conforming loan limit, making it ineligible to be purchased by the GSEs. The FHA, VA, and RHS/FSA loans follow the definition of loan types under HMDA and are restricted to closed-end loans excluding reverse mortgages.

TABLE 3B: MEDIAN CREDIT SCORES OF HOME PURCHASE LOANS, BY BORROWER AND NEIGHBORHOOD CHARACTERISTICS AND ENHANCED LOAN TYPE

	2018	2019	2020	2021	2022	2023
Race/Ethnicity ⁽¹⁾ : Asian	755	757	761	764	762	763
Race/Ethnicity: Black or African American	682	683	690	691	695	698
Race/Ethnicity: Hispanic White	703	705	712	716	718	720
Race/Ethnicity: Non-Hispanic White	741	744	748	750	751	754
Race/Ethnicity: Other Minority ⁽²⁾	711	712	717	718	720	722
Race/Ethnicity: Joint	726	727	735	738	739	738
Race/Ethnicity: Missing	739	740	743	744	744	746
Borrower income ⁽³⁾ : Low or moderate	718	721	727	727	730	734
Borrower income: Middle	724	725	732	733	735	736
Borrower income: High	749	751	755	756	756	756
Borrower income: Income not used or not applicable	748	755	754	756	758	762
Neighborhood income ⁽⁴⁾ : Low or moderate	713	715	722	724	724	726
Neighborhood income: Middle	726	727	733	735	738	741
Neighborhood income: High	751	752	755	757	758	760
Enhanced Loan Type ⁽⁵⁾ : Conventional conforming	754	757	760	759	758	762
Enhanced Loan Type: Jumbo	774	775	779	776	775	776
Enhanced Loan Type: FHA	664	663	669	664	664	673
Enhanced Loan Type: VA	710	712	720	719	721	727
Enhanced Loan Type: FSA/RHS	692	691	693	689	691	696
Overall	734	736	741	743	744	745

NOTE: Closed-end (excluding reverse mortgages) home purchase first-lien mortgages secured by site-built one-to-four-family, principal-residence properties.

(1) See Table 2A, note 1.

(2) See Table 2A, note 2.

(3) See Table 2A, note 3.

(4) See Table 2A, note 4.

(5) See Table 3A, note 5.

TABLE 3C: MEDIAN INTEREST RATES OF HOME PURCHASE LOANS, BY BORROWER AND NEIGHBORHOOD CHARACTERISTICS AND ENHANCED LOAN TYPE

	2018	2019	2020	2021	2022	2023
Race/Ethnicity ⁽¹⁾ : Asian	4.500	3.886	3.000	2.875	4.625	6.375
Race/Ethnicity: Black or African American	4.875	4.250	3.250	3.125	5.000	6.500
Race/Ethnicity: Hispanic White	4.875	4.250	3.250	3.125	5.125	6.625
Race/Ethnicity: Non-Hispanic White	4.625	4.125	3.125	3.000	4.990	6.625
Race/Ethnicity: Other Minority ⁽²⁾	4.750	4.125	3.125	3.000	5.000	6.500
Race/Ethnicity: Joint	4.625	4.125	3.125	3.000	4.875	6.500
Race/Ethnicity: Missing	4.625	4.000	3.125	2.990	4.875	6.500
Borrower income ⁽³⁾ : Low or moderate	4.750	4.250	3.125	3.000	4.990	6.500
Borrower income: Middle	4.750	4.125	3.125	3.000	5.000	6.500
Borrower income: High	4.625	4.000	3.125	2.990	4.875	6.500
Borrower income: Income not used or not applicable	4.500	3.990	3.000	2.990	4.750	6.500
Neighborhood income ⁽⁴⁾ : Low or moderate	4.750	4.250	3.250	3.125	5.125	6.625
Neighborhood income: Middle	4.750	4.125	3.125	3.000	5.000	6.624
Neighborhood income: High	4.625	4.000	3.125	2.990	4.843	6.500
Enhanced Loan Type ⁽⁵⁾ : Conventional conforming	4.750	4.125	3.125	3.000	4.990	6.625
Enhanced Loan Type: Jumbo	4.350	3.875	3.125	2.875	4.215	6.250
Enhanced Loan Type: FHA	4.875	4.250	3.250	3.125	5.125	6.500
Enhanced Loan Type: VA	4.500	3.990	3.000	2.750	4.750	6.250
Enhanced Loan Type: FSA/RHS	4.750	4.125	3.125	3.000	4.875	6.500
Overall	4.750	4.125	3.125	3.000	4.990	6.500

NOTE: Closed-end (excluding reverse mortgages) home purchase first-lien mortgages secured by site-built one-to-four-family, principal-residence properties.

(1) See Table 2A, note 1.

(2) See Table 2A, note 2.

(3) See Table 2A, note 3.

(4) See Table 2A, note 4.

(5) See Table 3A, note 5.

TABLE 3D: MEDIAN TOTAL LOAN COSTS (DOLLARS) OF HOME PURCHASE LOANS, BY BORROWER AND NEIGHBORHOOD CHARACTERISTICS AND ENHANCED LOAN TYPE

	2018	2019	2020	2021	2022	2023
Race/Ethnicity ⁽¹⁾ : Asian	4,638	4,702	4,892	5,095	6,131	6,625
Race/Ethnicity: Black or African American	5,235	5,457	5,980	6,186	7,558	8,464
Race/Ethnicity: Hispanic White	5,564	5,765	6,208	6,282	7,889	9,080
Race/Ethnicity: Non-Hispanic White	4,010	4,122	4,344	4,462	5,348	5,911
Race/Ethnicity: Other Minority ⁽²⁾	4,842	5,085	5,468	5,485	6,712	7,570
Race/Ethnicity: Joint	4,918	5,015	5,238	5,331	6,648	7,589
Race/Ethnicity: Missing	4,548	4,738	4,975	5,151	6,434	7,221
Borrower income ⁽³⁾ : Low or moderate	3,879	4,051	4,376	4,425	5,128	5,521
Borrower income: Middle	4,407	4,598	4,901	4,980	6,195	7,104
Borrower income: High	4,619	4,716	4,916	5,148	6,450	7,315
Borrower income: Income not used or not applicable	3,418	3,565	3,569	4,047	4,948	5,395
Neighborhood income ⁽⁴⁾ : Low or moderate	4,336	4,526	4,859	4,952	5,957	6,721
Neighborhood income: Middle	4,212	4,370	4,637	4,767	5,812	6,552
Neighborhood income: High	4,463	4,565	4,790	4,995	6,114	6,814
Enhanced Loan Type ⁽⁵⁾ : Conventional conforming	3,607	3,717	3,920	4,096	4,957	5,433
Enhanced Loan Type: Jumbo	5,718	5,781	6,232	6,992	7,855	8,337
Enhanced Loan Type: FHA	6,963	7,336	8,052	8,427	10,056	11,368
Enhanced Loan Type: VA	5,352	5,332	6,233	6,830	7,917	7,530
Enhanced Loan Type: FSA/RHS	4,348	4,551	4,989	5,183	5,796	6,257
Overall	4,332	4,475	4,736	4,889	5,954	6,684

NOTE: Closed-end (excluding reverse mortgages) home purchase first-lien mortgages secured by site-built one-to-four-family, principal-residence properties.

(1) See Table 2A, note 1.

(2) See Table 2A, note 2.

(3) See Table 2A, note 3.

(4) See Table 2A, note 4.

(5) See Table 3A, note 5.

TABLE 3E: MEDIAN LOAN AMOUNTS (THOSANDS OF DOLLARS) OF REFINANCE LOANS, BY BORROWER AND NEIGHBORHOOD CHARACTERISTICS AND ENHANCED LOAN TYPE

	2018	2019	2020	2021	2022	2023
Race/Ethnicity ⁽¹⁾ : Asian	317	387	359	355	370	341
Race/Ethnicity: Black or African American	177	222	235	221	216	206
Race/Ethnicity: Hispanic White	196	244	250	243	238	222
Race/Ethnicity: Non-Hispanic White	187	239	246	232	220	200
Race/Ethnicity: Other Minority ⁽²⁾	202	250	261	245	237	221
Race/Ethnicity: Joint	246	304	303	294	288	270
Race/Ethnicity: Missing	206	263	272	259	250	237
Borrower income ⁽³⁾ : Low or moderate	136	170	180	174	168	153
Borrower income: Middle	186	224	235	229	236	225
Borrower income: High	271	328	319	319	336	322
Borrower income: Income not used or not applicable	183	257	252	235	225	276
Neighborhood income ⁽⁴⁾ : Low or moderate	154	200	212	199	183	173
Neighborhood income: Middle	174	220	227	217	212	202
Neighborhood income: High	251	307	302	297	300	276
Enhanced Loan Type ⁽⁵⁾ : Conventional conforming	184	240	256	240	220	190
Enhanced Loan Type: Jumbo	760	840	882	937	1,099	1,212
Enhanced Loan Type: FHA	182	219	218	208	215	217
Enhanced Loan Type: VA	228	269	271	261	285	288
Enhanced Loan Type: FSA/RHS	128	174	167	159	136	88
Overall	196	250	259	245	232	214

NOTE: Closed-end (excluding reverse mortgage) refinance first-lien mortgages secured by site-built one-to-four-family, principal-residence properties.

(1) See Table 2A, note 1.

(2) See Table 2A, note 2.

(3) See Table 2A, note 3.

(4) See Table 2A, note 4.

(5) See Table 3A, note 5.

TABLE 3F: MEDIAN CREDIT SCORES OF REFINANCE LOANS, BY BORROWER AND NEIGHBORHOOD CHARACTERISTICS AND ENHANCED LOAN TYPE

	2018	2019	2020	2021	2022	2023
Race/Ethnicity ⁽¹⁾ : Asian	744	763	779	776	755	737
Race/Ethnicity: Black or African American	690	698	726	719	692	679
Race/Ethnicity: Hispanic White	707	719	744	737	712	701
Race/Ethnicity: Non-Hispanic White	730	749	769	763	734	713
Race/Ethnicity: Other Minority ⁽²⁾	707	720	749	739	710	692
Race/Ethnicity: Joint	716	740	763	756	722	697
Race/Ethnicity: Missing	720	740	765	757	721	694
Borrower income ⁽³⁾ : Low or moderate	718	730	763	756	722	703
Borrower income: Middle	720	742	766	757	720	697
Borrower income: High	732	754	771	765	737	714
Borrower income: Income not used or not applicable	702	704	731	724	723	690
Neighborhood income ⁽⁴⁾ : Low or moderate	710	726	754	745	711	693
Neighborhood income: Middle	720	737	761	753	721	701
Neighborhood income: High	735	754	773	768	741	718
Enhanced Loan Type ⁽⁵⁾ : Conventional conforming	736	755	771	764	738	736
Enhanced Loan Type: Jumbo	761	772	778	776	768	760
Enhanced Loan Type: FHA	659	663	669	661	645	651
Enhanced Loan Type: VA	692	706	736	730	692	676
Enhanced Loan Type: FSA/RHS	696	701	714	706	684	705
Overall	724	744	766	759	727	704

NOTE: Closed-end (excluding reverse mortgage) refinance first-lien mortgages secured by site-built one-to-four-family, principal-residence properties.

(1) See Table 2A, note 1.

(2) See Table 2A, note 2.

(3) See Table 2A, note 3.

(4) See Table 2A, note 4.

(5) See Table 3A, note 5.

TABLE 3G: MEDIAN INTEREST RATES OF REFINANCE LOANS, BY BORROWER AND NEIGHBORHOOD CHARACTERISTICS AND ENHANCED LOAN TYPE

	2018	2019	2020	2021	2022	2023
Race/Ethnicity ⁽¹⁾ : Asian	4.375	3.750	2.875	2.625	3.375	6.500
Race/Ethnicity: Black or African American	4.625	3.990	3.000	2.875	4.000	6.375
Race/Ethnicity: Hispanic White	4.750	3.990	3.000	2.875	3.875	6.620
Race/Ethnicity: Non-Hispanic White	4.625	3.875	3.000	2.875	3.750	6.500
Race/Ethnicity: Other Minority ⁽²⁾	4.625	3.900	2.999	2.875	3.875	6.490
Race/Ethnicity: Joint	4.500	3.875	2.990	2.750	3.750	6.500
Race/Ethnicity: Missing	4.500	3.875	2.990	2.750	3.750	6.375
Borrower income ⁽³⁾ : Low or moderate	4.625	4.000	3.125	2.875	3.875	6.500
Borrower income: Middle	4.625	3.990	3.000	2.875	3.875	6.500
Borrower income: High	4.500	3.875	2.999	2.750	3.750	6.500
Borrower income: Income not used or not applicable	4.250	3.625	2.875	2.500	3.125	6.000
Neighborhood income ⁽⁴⁾ : Low or moderate	4.625	3.990	3.000	2.875	3.990	6.500
Neighborhood income: Middle	4.625	3.875	3.000	2.875	3.875	6.500
Neighborhood income: High	4.500	3.875	2.990	2.750	3.625	6.500
Enhanced Loan Type ⁽⁵⁾ : Conventional conforming	4.625	3.875	3.000	2.875	3.750	6.625
Enhanced Loan Type: Jumbo	4.250	3.625	3.125	2.875	3.250	6.500
Enhanced Loan Type: FHA	4.625	3.990	3.134	2.875	4.490	6.250
Enhanced Loan Type: VA	4.375	3.625	2.750	2.375	3.750	6.250
Enhanced Loan Type: FSA/RHS	3.880	3.625	3.000	2.750	3.060	6.938
Overall	4.625	3.875	3.000	2.875	3.750	6.500

NOTE: Closed-end (excluding reverse mortgage) refinance first-lien mortgages secured by site-built one-to-four-family, principal-residence properties.

(1) See Table 2A, note 1.

(2) See Table 2A, note 2.

(3) See Table 2A, note 3.

(4) See Table 2A, note 4.

(5) See Table 3A, note 5.

TABLE 3H: MEDIAN TOTAL LOAN COSTS (DOLLARS) OF REFINANCE LOANS, BY BORROWER AND NEIGHBORHOOD CHARACTERISTICS AND ENHANCED LOAN TYPE

	2018	2019	2020	2021	2022	2023
Race/Ethnicity ⁽¹⁾ : Asian	3,478	3,176	2,992	3,030	4,389	6,611
Race/Ethnicity: Black or African American	4,323	4,224	3,836	3,857	6,016	8,462
Race/Ethnicity: Hispanic White	3,974	4,125	3,932	3,879	5,527	7,715
Race/Ethnicity: Non-Hispanic White	3,444	3,378	3,204	3,214	4,539	6,589
Race/Ethnicity: Other Minority ⁽²⁾	4,196	4,098	3,722	3,735	5,732	8,219
Race/Ethnicity: Joint	3,918	3,609	3,419	3,428	5,242	8,192
Race/Ethnicity: Missing	4,175	4,080	3,554	3,525	5,743	8,837
Borrower income ⁽³⁾ : Low or moderate	3,551	3,671	3,306	3,286	4,729	6,450
Borrower income: Middle	3,726	3,621	3,278	3,313	5,311	8,202
Borrower income: High	3,743	3,525	3,316	3,387	5,258	8,380
Borrower income: Income not used or not applicable	3,275	3,305	3,357	3,286	3,696	4,540
Neighborhood income ⁽⁴⁾ : Low or moderate	3,741	3,737	3,443	3,454	5,097	7,116
Neighborhood income: Middle	3,643	3,593	3,319	3,337	4,989	7,340
Neighborhood income: High	3,662	3,474	3,272	3,299	4,897	7,504
Enhanced Loan Type ⁽⁵⁾ : Conventional conforming	3,192	3,231	3,184	3,181	4,300	5,051
Enhanced Loan Type: Jumbo	4,257	3,809	4,110	4,566	5,774	8,296
Enhanced Loan Type: FHA	6,573	6,712	5,716	5,589	9,500	11,727
Enhanced Loan Type: VA	5,937	3,528	3,114	3,168	8,265	11,476
Enhanced Loan Type: FSA/RHS	4,055	4,399	4,440	4,544	5,032	6,639
Overall	3,664	3,556	3,310	3,336	4,979	7,329

NOTE: Closed-end (excluding reverse mortgage) refinance first-lien mortgages secured by site-built one-to-four-family, principal-residence properties.

(1) See Table 2A, note 1.

(2) See Table 2A, note 2.

(3) See Table 2A, note 3.

(4) See Table 2A, note 4.

(5) See Table 3A, note 5.

3.3 Denial rates

The overall denial rate for home purchase applications for all applicants was 9.4 percent in 2023, higher than that in 2022 (9.1 percent).²⁴ About 13.7 percent of FSA/RHS applications (excluding withdrawn or incomplete applications) for home purchase loans were denied in 2023, followed by applications for FHA loans which had a denial rate of 13.6 percent. The conventional conforming home purchase applications had a denial rate of 7.9 percent in 2023, the lowest among all enhanced loan types.

The denial rates for refinance applications were higher than those for home purchase loans. The overall denial rate on applications for refinance loans was 32.7 percent in 2023, a steep increase from 24.7 percent in 2022 and 14.2 percent in 2021. The applications for conventional conforming refinance loans were the least likely to be denied (27.6 percent).

As in past years, Black and Hispanic white borrowers had notably higher denial rates in 2023 than non-Hispanic white and Asian borrowers. Among home purchase applications, the denial rates were 17.1 percent for Black applicants and 12.7 percent for Hispanic white applicants in 2023, both of which were higher than 2022 denial rates. In contrast, the denial rates of home purchase applications were 9.7 percent for Asian applicants and 6.8 percent for non-Hispanic white applicants.

Within each enhanced loan type except FHA loans, Black and Hispanic white applicants for home purchase loans had higher denial rates than non-Hispanic white or Asian applicants. For example, the denial rate of home purchase loan applications for conventional conforming loans was 16.7 percent for Black applicants and 12 percent for Hispanic white applicants. In contrast, the denial rate of home purchase loan applications for conventional conforming loans was 5.8 percent for non-Hispanic white applicants. On the other hand, for FHA home purchase applications, the denial rate of Asian applicants was higher than that of Hispanic white applicants but lower than that of Black applicants.

Consistent with denials for home purchase loans, Black and Hispanic white applicants were also more likely to be denied for refinance applications. In 2023, about 43.5 percent of Black applicants and 36.9 percent of Hispanic white applicants applying for refinance loans were denied, compared to denial rates of 32.9 percent for Asian applicants and 27 percent for non-Hispanic white applicants. The disparities in refinance denial rate were smaller among FHA and

²⁴ Denial rates are calculated as the number of denied loan applications divided by the total number of applications, excluding withdrawn applications and application files closed for incompleteness.

VA loan applications compared with conventional conforming and jumbo loan applications. For example, the denial rates for conventional conforming refinance applications were at 40.7 percent, 34.6 percent, 28.5 percent, and 22 percent for Black, Hispanic white, Asian, and non-Hispanic white applicants, respectively. In contrast, the denial rates for FHA refinance applications were 48.7 percent, 42 percent, 48 percent, and 36.2 percent for Black, Hispanic white, Asian, and non-Hispanic white applicants, respectively.

TABLE 4A: HOME PURCHASE LOAN DENIAL RATES BY APPLICANT'S RACE AND ETHNICITY (PERCENT), ALL LOAN TYPES

	2018	2019	2020	2021	2022	2023
All applicants	9.8	8.9	9.3	8.3	9.1	9.4
Asian	10.2	9.1	9.7	7.9	9.6	9.7
Black or African American	17.4	15.9	18.1	15.3	16.8	17.1
Hispanic White	13.1	11.6	12.5	10.6	12.0	12.7
Non-Hispanic White	7.9	7.0	6.9	6.3	6.7	6.8
Other Minority ⁽¹⁾	14.3	13.0	13.7	12.4	13.8	14.0
Joint	8.4	7.5	7.9	6.5	6.8	7.1
Missing	12.4	11.1	11.5	10.4	11.4	11.3

TABLE 4B: REFINANCE LOAN DENIAL RATES BY APPLICANT'S RACE AND ETHNICITY (PERCENT), ALL LOAN TYPES

	2018	2019	2020	2021	2022	2023
All applicants	29.1	19.2	13.2	14.2	24.7	32.7
Asian	28.0	16.0	12.1	12.3	22.9	32.9
Black or African American	44.3	32.9	23.2	23.6	35.8	43.5
Hispanic White	32.1	23.0	17.6	17.6	27.6	36.9
Non-Hispanic White	25.1	16.4	11.0	11.8	20.2	27.0
Other Minority ⁽¹⁾	42.2	30.4	21.2	22.0	35.4	45.4
Joint	25.5	15.7	11.0	11.0	19.1	29.1
Missing	34.3	22.7	16.3	17.8	30.6	38.8

NOTE: Closed-end (excluding reverse mortgage) home purchase or refinance first-lien mortgages secured by site-built single-family, principal-residence properties.

(1) See Table 2A, note 1.

TABLE 4C: HOME PURCHASE LOAN DENIAL RATES, BY CONVENTIONAL LOAN TYPE AND APPLICANT'S RACE AND ETHNICITY (PERCENT)

	Conforming 2018	Conforming 2019	Conforming 2020	Conforming 2021	Conforming 2022	Conforming 2023	Jumbo 2018	Jumbo 2019	Jumbo 2020	Jumbo 2021	Jumbo 2022	Jumbo 2023
All applicants	8.2	7.4	7.6	7.1	7.6	7.9	11.0	10.5	11.0	8.2	9.5	10.5
Asian	9.1	8.1	8.7	7.4	8.9	8.8	12.4	11.8	11.3	8.1	10.6	11.2
Black or African American	16.9	15.9	17.0	15.7	16.2	16.7	19.0	19.1	21.1	16.8	20.0	21.0
Hispanic White	11.9	10.6	11.0	9.7	10.9	12.0	17.2	16.9	18.1	12.7	15.0	15.6
Non-Hispanic White	6.5	5.8	5.8	5.4	5.6	5.8	9.9	9.5	10.1	7.4	8.0	9.2
Other Minority ⁽¹⁾	13.4	12.8	12.6	12.1	13.0	13.7	13.1	16.5	18.3	13.9	18.6	17.7
Joint	7.0	6.4	6.2	5.5	5.6	5.8	9.0	8.3	8.4	6.4	7.1	8.5
Missing	10.8	9.3	9.7	9.1	9.7	9.6	11.7	11.2	11.9	9.3	10.8	11.5

TABLE 4D: REFINANCE LOAN DENIAL RATES, BY CONVENTIONAL LOAN TYPE AND APPLICANT'S RACE AND ETHNICITY (PERCENT)

	Conforming 2018	Conforming 2019	Conforming 2020	Conforming 2021	Conforming 2022	Conforming 2023	Jumbo 2018	Jumbo 2019	Jumbo 2020	Jumbo 2021	Jumbo 2022	Jumbo 2023
All applicants	24.7	16.5	12.0	13.0	21.2	27.6	27.6	18.8	18.5	13.6	17.8	28.5
Asian	25.1	14.5	11.5	11.9	21.4	28.5	27.8	16.2	17.3	11.5	17.3	30.5
Black or African American	39.8	33.5	25.4	23.9	32.2	40.7	41.3	35.1	30.2	22.7	31.2	48.4
Hispanic White	30.0	22.5	17.2	17.1	25.5	34.6	36.4	28.4	29.2	19.3	25.9	36.8
Non-Hispanic White	20.9	13.8	9.9	10.5	16.9	22.0	25.9	18.2	17.7	12.7	16.0	25.6
Other Minority ⁽¹⁾	37.0	28.4	20.9	21.4	32.0	43.0	41.2	31.7	27.8	21.9	23.4	34.3
Joint	21.3	13.5	9.9	9.9	16.3	24.5	23.7	15.9	15.7	11.1	13.3	24.0
Missing	30.3	19.7	15.2	16.6	27.2	35.0	31.1	20.7	20.1	16.6	21.2	30.8

NOTE: Closed-end (excluding reverse mortgage) home purchase or refinance first-lien mortgages secured by site-built single-family, principal-residence properties.

(1) See Table 2A, note 1.

TABLE 4E: HOME PURCHASE LOAN DENIAL RATES, BY NON-CONVENTIONAL⁽¹⁾ LOAN TYPE AND APPLICANT'S RACE AND ETHNICITY (PERCENT)

	FHA 2018	FHA 2019	FHA 2020	FHA 2021	FHA 2022	FHA 2023	VA 2018	VA 2019	VA 2020	VA 2021	VA 2022	VA 2023	FSA/ RHS 2018	FSA/ RHS 2019	FSA/ RHS 2020	FSA/ RHS 2021	FSA/ RHS 2022	FSA/ RHS 2023
All applicants	13.9	12.4	14.1	12.4	14.4	13.6	9.8	8.7	8.6	7.9	8.9	9.1	14.1	12.6	10.3	10.0	13.2	13.7
Asian	15.8	14.7	16.3	14.2	16.7	15.9	9.4	8.5	8.6	8.4	9.5	9.6	17.9	14.4	13.0	13.7	16.8	16.7
Black or African American	18.6	16.8	20.7	16.1	18.5	18.6	14.8	13.3	13.9	12.0	13.6	13.9	21.1	19.8	16.7	14.8	19.7	20.4
Hispanic White	14.4	12.6	14.4	11.9	13.9	13.9	11.7	10.3	10.0	8.9	10.3	10.3	18.9	16.6	13.9	13.1	16.7	17.1
Non-Hispanic White	11.3	9.8	10.1	9.8	11.1	10.0	8.4	7.3	7.0	6.4	7.1	7.2	12.3	11.0	8.6	8.5	11.5	12.1
Other Minority ⁽²⁾	16.6	13.8	16.6	14.4	15.7	16.0	12.8	11.5	11.3	9.8	12.2	11.2	16.3	16.1	12.6	10.6	16.6	16.8
Joint	11.6	9.8	12.6	9.9	10.8	9.8	8.1	7.3	7.7	6.5	7.0	7.4	15.8	14.2	12.3	10.8	14.6	13.5
Missing	17.7	16.4	17.4	15.6	17.9	16.4	11.3	9.9	9.5	9.1	10.1	10.2	21.4	17.5	14.7	14.1	17.0	16.9

TABLE 4F: REFINANCE LOAN DENIAL RATES, BY NON-CONVENTIONAL⁽¹⁾ LOAN TYPE AND APPLICANT'S RACE AND ETHNICITY (PERCENT)

	FHA 2018	FHA 2019	FHA 2020	FHA 2021	FHA 2022	FHA 2023	VA 2018	VA 2019	VA 2020	VA 2021	VA 2022	VA 2023	FSA/ RHS 2018	FSA/ RHS 2019	FSA/ RHS 2020	FSA/ RHS 2021	FSA/ RHS 2022	FSA/ RHS 2023
All applicants	43.8	30.2	22.2	23.6	40.6	41.2	36.4	21.8	13.9	16.7	30.8	37.0	39.7	27.7	18.6	16.8	30.8	54.4
Asian	48.4	30.2	23.7	23.8	43.8	48.0	36.4	22.4	13.2	14.6	31.6	44.6	63.6	33.3	23.0	25.5	25.0	(-)
Black or African American	52.6	35.5	24.4	25.3	45.0	48.7	46.0	29.3	17.8	21.4	36.7	40.2	41.8	36.0	25.8	23.0	38.6	42.9
Hispanic White	39.0	25.5	21.6	21.9	38.0	42.0	34.8	20.4	13.6	15.7	30.2	40.1	36.8	25.0	18.7	16.9	29.2	100
Non-Hispanic White	40.3	27.9	20.2	21.9	36.7	36.2	33.8	19.8	12.6	15.0	28.2	34.5	37.5	25.9	16.9	15.9	28.7	48.5
Other Minority ⁽²⁾	52.5	36.0	25.7	25.5	45.6	47.4	48.8	31.2	18.9	22.0	39.8	48.8	35.5	28.2	22.4	22.3	34.8	100
Joint	36.8	21.9	17.4	17.2	32.5	35.8	32.0	18.7	12.0	13.3	24.7	34.4	38.8	27.2	17.4	17.8	21.9	100
Missing	48.5	35.2	25.8	26.9	45.5	45.2	36.9	22.7	15.6	18.6	32.4	38.0	56.4	38.0	27.0	17.8	40.0	75.0

NOTE: Closed-end (excluding reverse mortgage) home purchase or refinance first-lien mortgages secured by site-built single-family, principal-residence properties. For a description of how borrowers are categorized by race and ethnicity, see Table 2, note 1.

(1) Nonconventional loans are those insured by the FHA or backed by guarantees from the VA, the FSA, or the RHS.

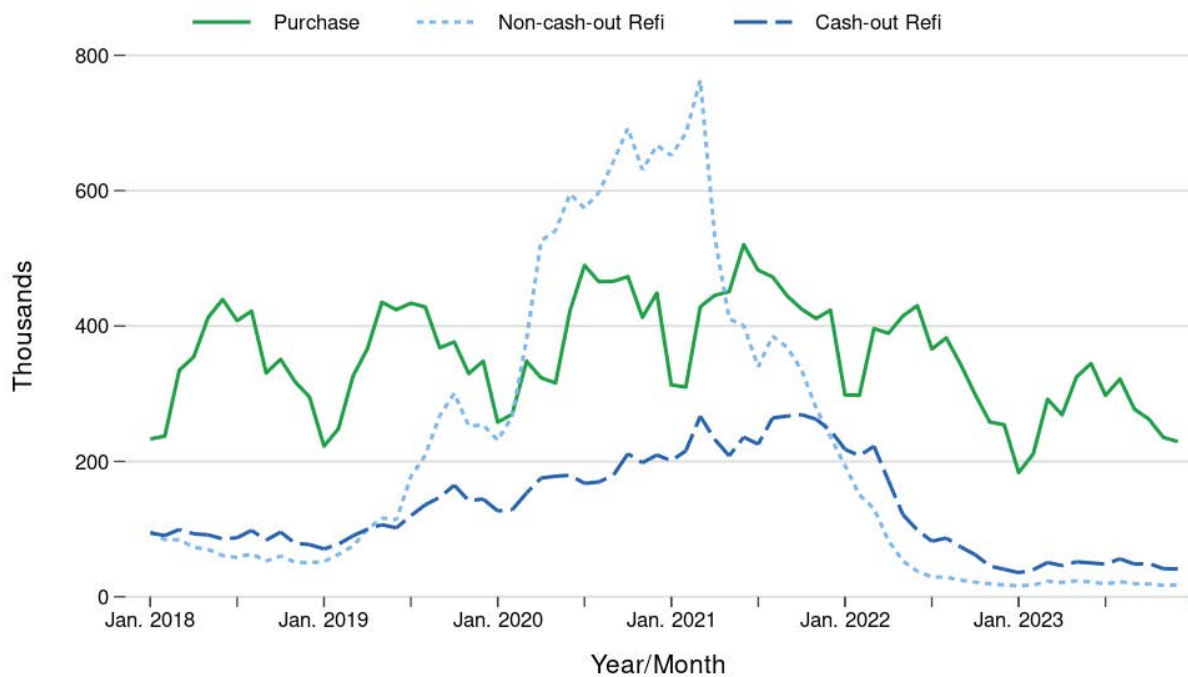
(2) See Table 2A, note 1.

4. Monthly mortgage trends and activities

The discussion and tables in previous chapters provide historical comparisons on an annual basis. In this chapter, we show the monthly trends of mortgage activities from 2018 to 2023. In doing so, we rely on the action taken date that was collected and reported under HMDA. We note that the action taken date is a data field not available in the publicly released version of the modified HMDA data.

Figure 3A plots the number of originations for closed-end mortgage loans secured by site-built single-family homes in each month between January 2018 and December 2023, separated by three loan purposes: home purchase, cash-out refinance, and non-cash-out refinance. We break out the refinance activity into cash-out and non-cash-out refinance to provide further details. By the end of 2023, home purchase loan originations were down, and the small refinance origination volume left in the market was mostly composed of cash-out refinance loans. This coincided with the increase in market interest rates, as noted in Figure 1.

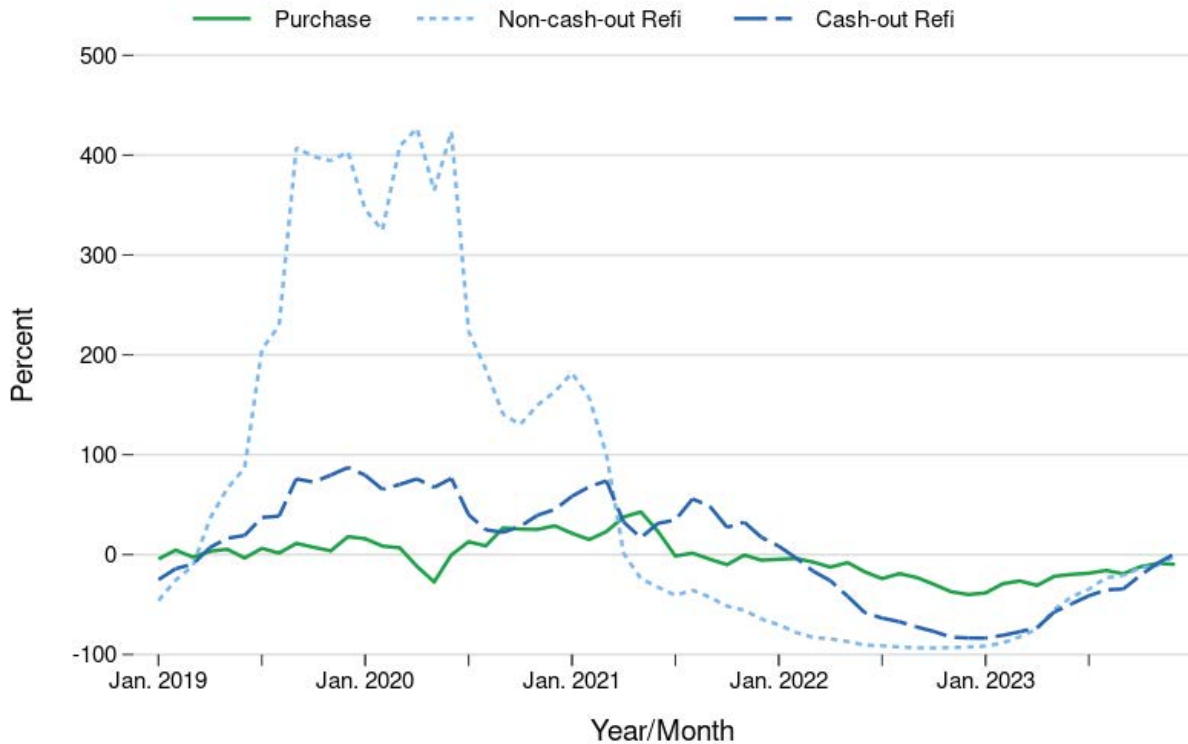
FIGURE 3A: NUMBER OF CLOSED-END MORTGAGE ORIGINATIONS BY LOAN PURPOSE



NOTE: Monthly originations of closed-end loans secured by site-built single-family homes between January 2018 and December 2023. [Underlying data can be found in appendix table A3.](#)

The home purchase origination volume clearly displays a strong seasonal pattern, as home sales typically fluctuate as the number of home sellers and buyers entering the market changes with the seasons. Figure 3B plots the year-over-year change in closed-end loan origination volumes by loan purpose between January 2018 and December 2023. The home purchase loan origination volume rose year-over-year starting in the second half of 2019 until April 2020 when the nationwide shutdown due to the pandemic occurred. Starting in July 2020, the home purchase volume recovered and increased significantly. The year-over-year increase in home purchase loan volume continued into the first half of 2021, reaching an annual growth rate of 42.8 percent in May 2021 and the monthly volume peaked at 520,000 originations in June 2021. Then it mostly plateaued or dipped into negative territories in the second half of 2021 in terms of year-over-year change. In 2022, the decline of home purchase originations accelerated. The origination volume of home purchase loans declined by 3.9% in February 2022 compared to a year earlier. The annual decline jumped to 17.3 percent year-over-year in June 2022 and continued to accelerate throughout the rest of the year, down 40.0 percent in December 2022 compared to December 2021. The year-over-year decreases in purchase loan volume continued throughout 2023 but lessened in comparison to 2022, down 9.8 percent in December 2023 compared to 40 percent in December 2022. The monthly origination volume in December 2023 stood at 229,000.

FIGURE 3B: YEAR-OVER-YEAR PERCENTAGE CHANGE OF NUMBER OF CLOSE-END MORTGAGE ORIGINATIONS BY LOAN PURPOSE



NOTE: Year-over-year percentage changes of monthly originations of closed-end loans secured by site-built single-family homes between January 2019 and December 2023. [Underlying data can be found in appendix table A4.](#)

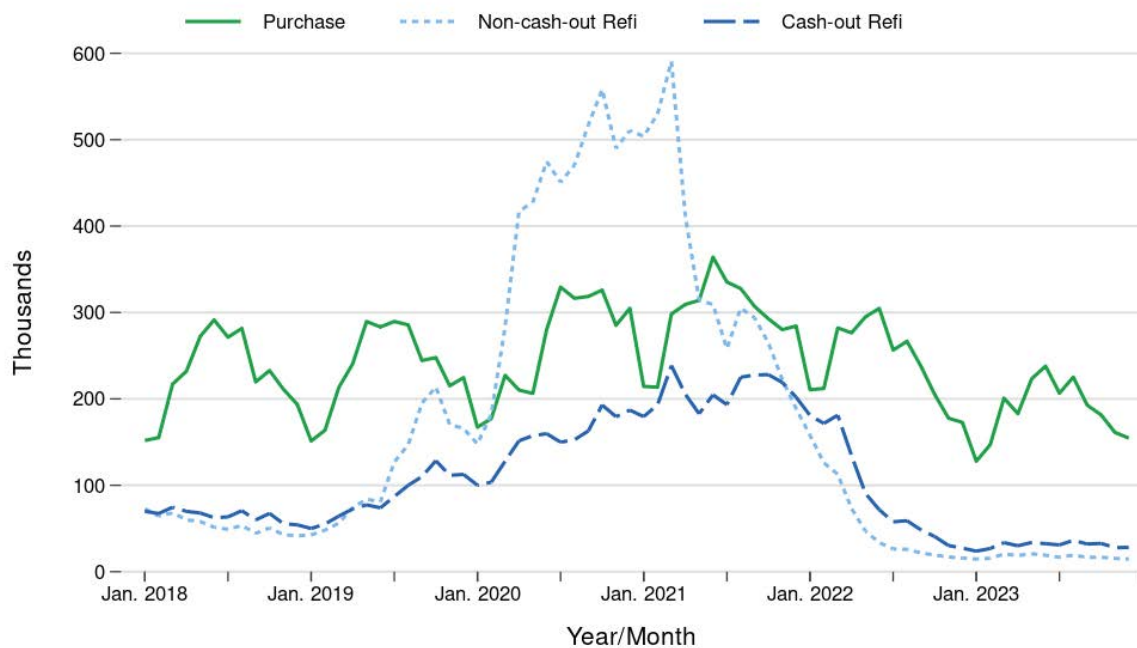
After a refinance boom that peaked in mid-2021, the refinance volume, especially in non-cash-out refinance that dominated mortgage market activities in 2019 and 2020, declined precipitously through 2022 and 2023. At its peak in March 2021, over 763,000 non-cash-out refinance loans were originated in a month. Since then, the non-cash-out refinance volume decreased rapidly. By December 2021, the monthly non-cash-out refinance volume fell to 236,000. This trend continued throughout 2022. By the end of 2022, the monthly non-cash-out refinance volume stood at a meager 18,000 per month, only 2.3 percent of its peak value, and down 92.6 percent from just a year earlier. Throughout 2023 the volume of non-cash-out and cash-out refinance originations remained low, decreasing slightly by the end of 2023.

During the refinance boom, the cash-out refinance volume rapidly rose too, but at a rate dwarfed by the non-cash-out refinance. Cash-out refinance loans peaked at 269,000 loans in October 2021. For most of 2021, the cash-out refinance volume stayed above 200,000 originations per month, even though the non-cash-out refinance originations had already dipped drastically since March. The monthly cash-out refinance volume was about 246,000

originations in December 2021. The beginning of 2022 saw monthly cash-out refinance volume drop to 218,000 originations in January. Since April 2022, the monthly cash-out refinance volume has dropped continuously. By the end of 2022, the monthly volume fell to 41,000 in December 2022. Over 2023 the cash-out refinance volume peaked in August at 56,000 and then fell to 41,000 in December. On the other hand, compared to non-cash-out refinances for which borrowers mainly sought to lower their interest rates, the cash-out refinance volume did not vanish. Since December 2021, the ratio of cash-out refinance over non-cash-out refinance origination exceeded a factor of 2 and was close to a factor of 3 in multiple months.

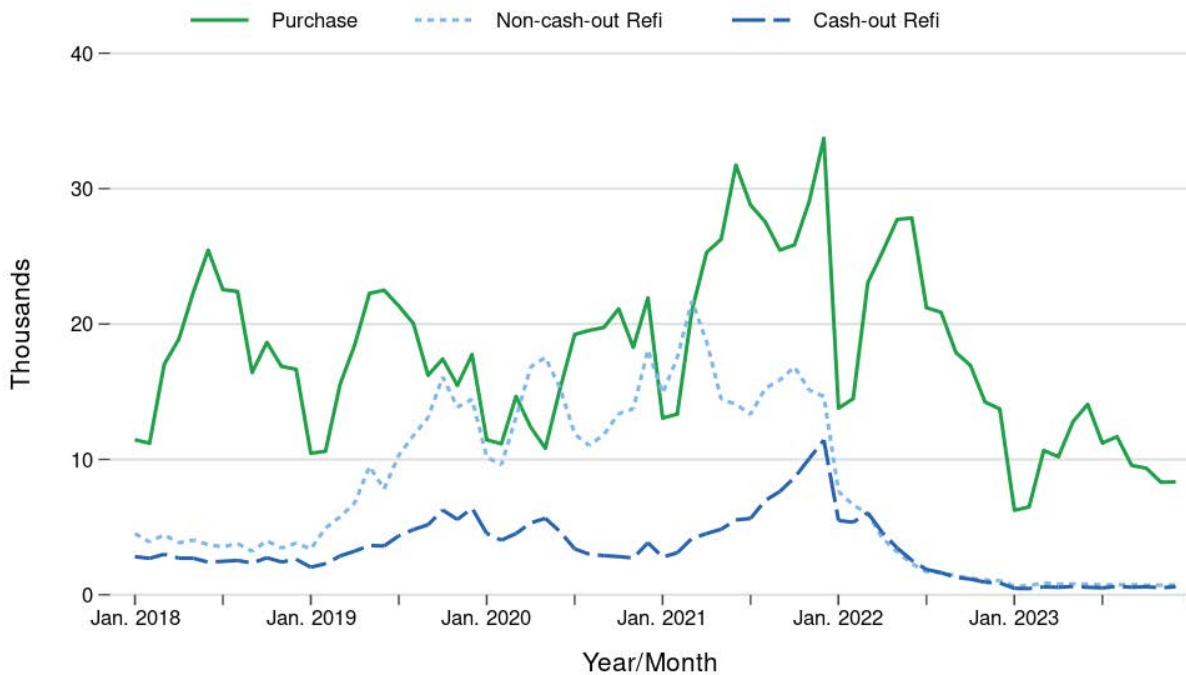
Figures 4 through 8 show the monthly loan origination volume of home purchase, cash-out refinance, and non-cash-out refinance loans by enhanced loan types. The trends in the conventional conforming market (Figure 4) were largely similar to the overall trends of the entire mortgage market presented in Figure 3A, as conventional conforming loans are the most common enhanced loan type. In the jumbo loans space (Figure 5), cash-out and non-cash-out refinance originations remained at consistent levels after the significant decline in 2022. The origination volume of cash-out and non-cash-out refinance for RHS/FSA loans (Figure 8) remained small in 2023.

FIGURE 4: NUMBER OF CLOSED-END CONVENTIONAL CONFORMING ORIGINATIONS BY LOAN PURPOSE



NOTE: Monthly originations of closed-end conventional conforming loans secured by site-built single-family homes between January 2018 and December 2023. [Underlying data can be found in appendix table A5.](#)

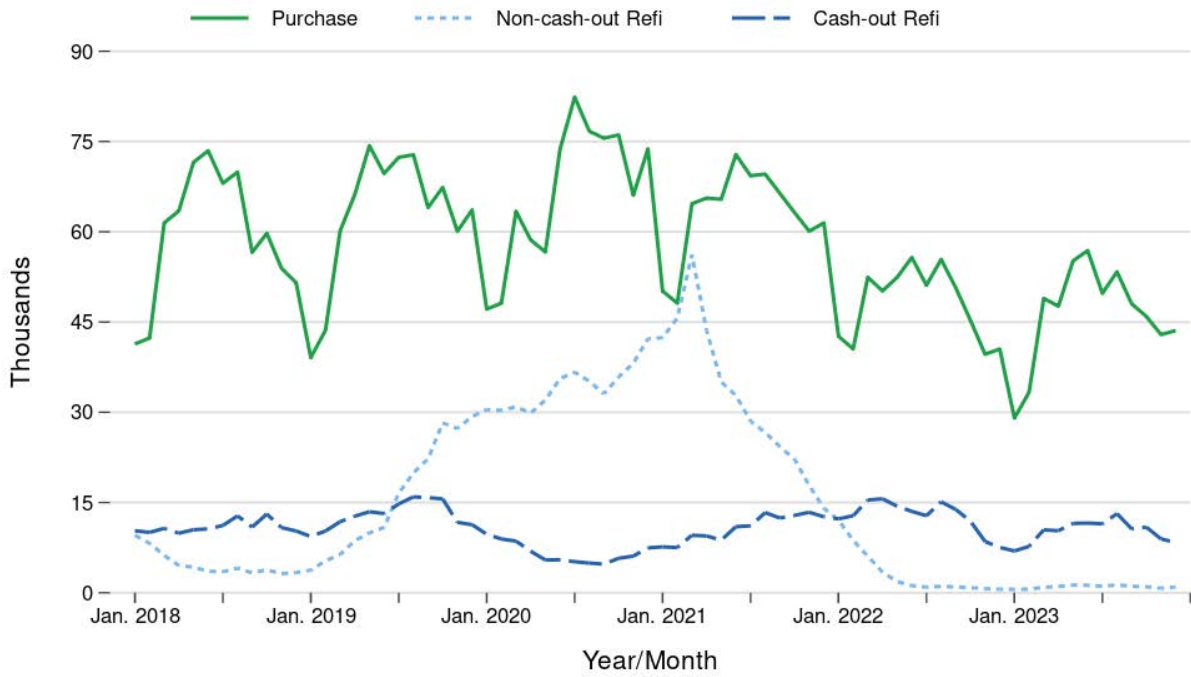
FIGURE 5: NUMBER OF CLOSED-END JUMBO ORIGINATIONS BY LOAN PURPOSE



NOTE: Monthly originations of closed-end jumbo loans secured by site-built single-family homes between January 2018 and December 2023. [Underlying data can be found in appendix table A6.](#)

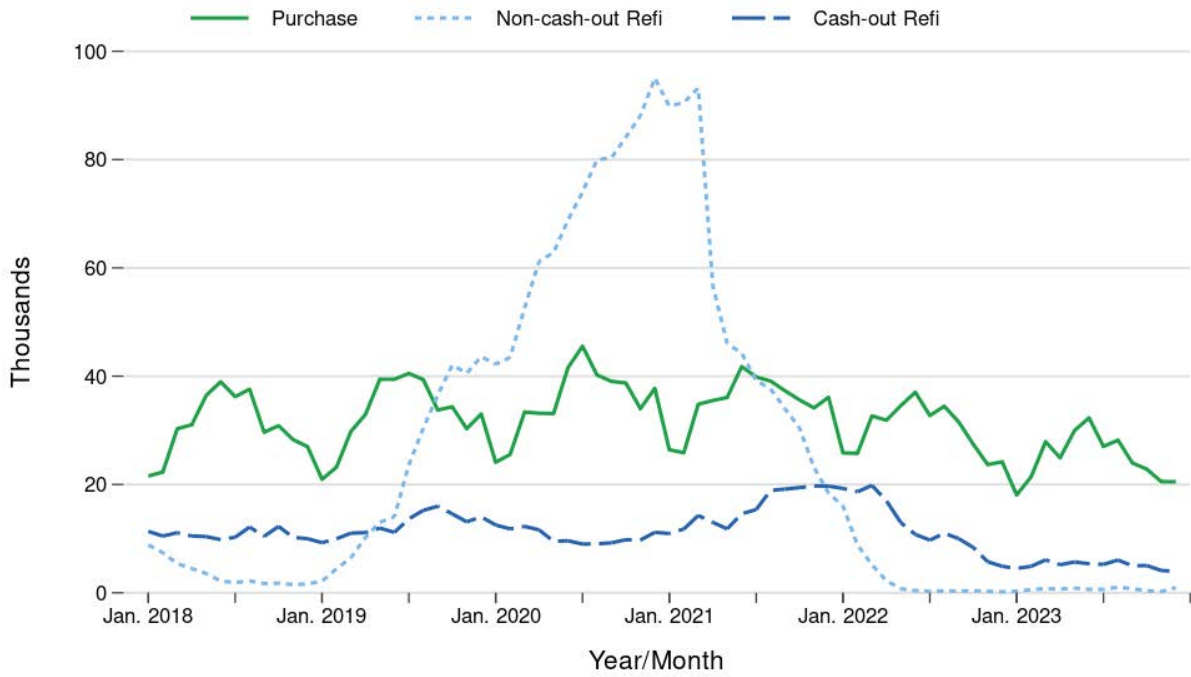
The most prominent gaps between the cash-out and non-cash-out refinance in 2023 occurred among FHA (Figure 6) and VA (Figure 7) loans. Unlike conventional conforming and jumbo loans, the number of FHA cash-out-refinance loans increased slightly in the beginning of 2023 and did not drop until the last quarter. This contrasts with the sharp decrease in the number of non-cash-out refinance loans in 2021 and the low volume that has persisted since. In terms of ratios, the number of FHA cash-out refinance loans fluctuated between 9 and 12 times that of FHA non-cash-out refinance loans throughout 2023. Similarly, while the number of VA non-cash-out refinance loans remained low in 2023, borrowers continued to take out VA cash-out refinance loans at a higher rate. For example, in December of 2023, fewer than 1,000 VA non-cash-out refinance loans were originated, while close to 4,000 VA cash-out refinance loans were originated.

FIGURE 6: NUMBER OF CLOSED-END FHA ORIGINATIONS BY LOAN PURPOSE



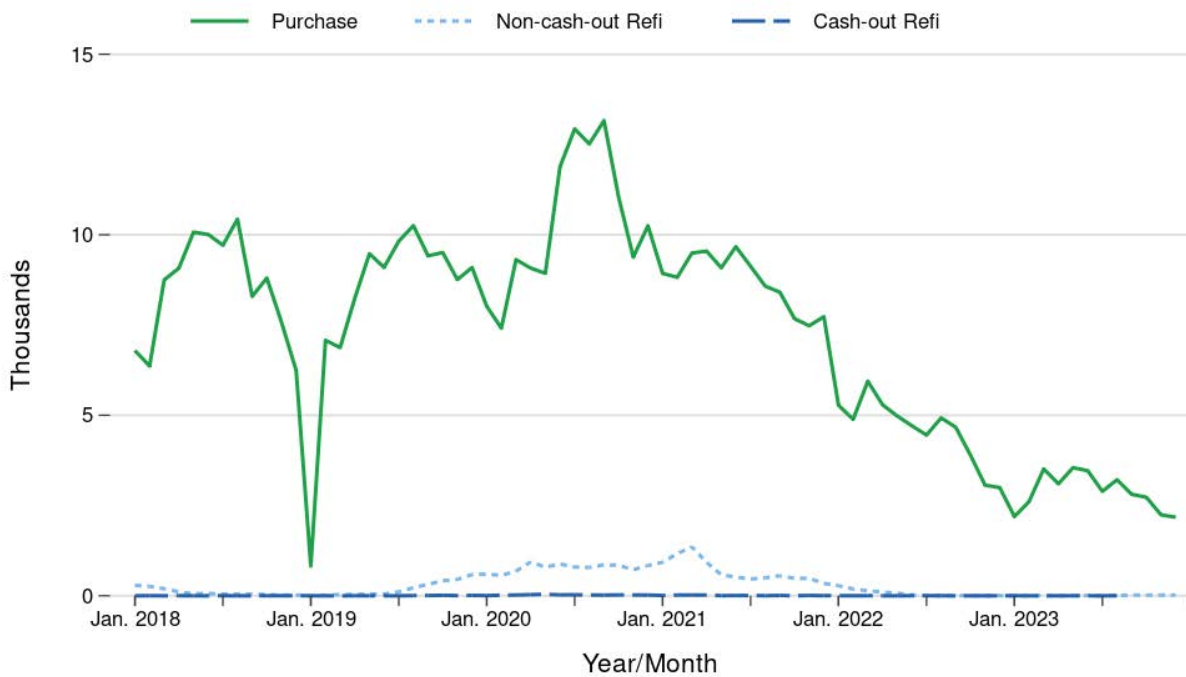
NOTE: Monthly originations of closed-end FHA loans secured by site-built single-family homes between January 2018 and December 2023. [Underlying data can be found in appendix table A7.](#)

FIGURE 7: NUMBER OF CLOSED-END VA ORIGINATIONS BY LOAN PURPOSE



NOTE: Monthly originations of closed-end VA loans secured by site-built single-family homes between January 2018 and December 2023. [Underlying data can be found in appendix table A8.](#)

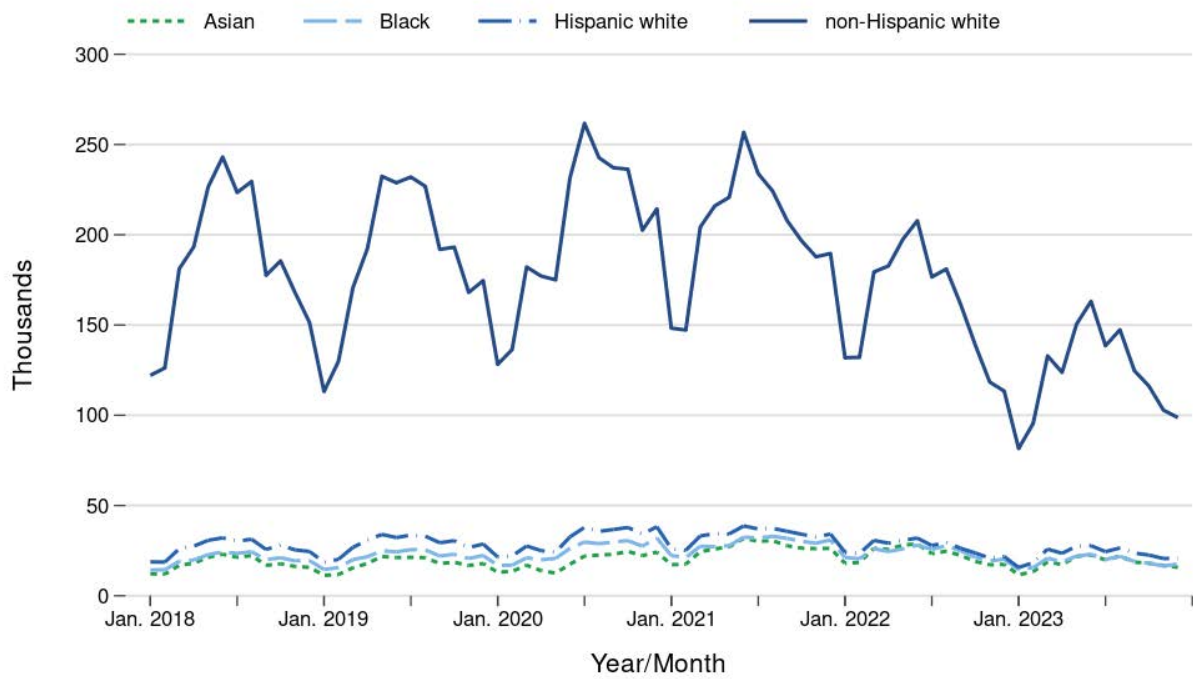
FIGURE 8: NUMBER OF CLOSED-END RHS/FSA ORIGINATIONS BY LOAN PURPOSE



NOTE: Monthly originations of closed-end RHS/FSA loans secured by site-built single-family homes between January 2018 and December 2023. [Underlying data can be found in appendix table A9.](#)

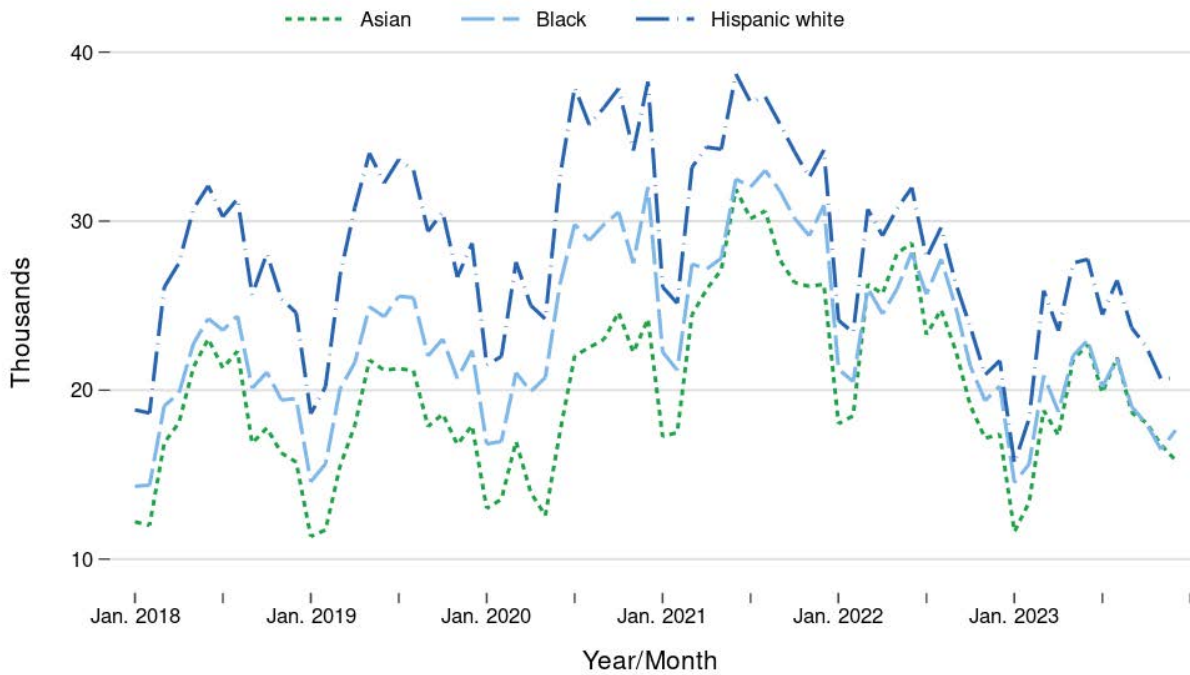
Figure 9A shows the monthly origination volume of closed-end home purchase loans by race/ethnicity. Compared to the same period in 2022, Asian, Black, Hispanic white, and non-Hispanic white borrowers all saw a significant drop in home purchase origination volumes in almost all of 2023, and the year-over-year rate of decline accelerated throughout the year for all groups. Because the origination volume of non-Hispanic white borrowers far exceeds those of Asian, Black, and Hispanic white borrowers, we included Figures 9B, 10B, 11B, and 12B where non-Hispanic white borrowers are excluded, and the vertical axis is rescaled to aid the visual comparison of lending volumes and the shares of minority borrowers over time.

FIGURE 9A: NUMBER OF CLOSED-END HOME PURCHASE LOAN ORIGINATIONS BY RACE AND ETHNICITY



NOTE: Monthly originations of closed-end home purchase loans secured by site-built single-family homes between January 2018 and December 2023. [Underlying data can be found in appendix table A10.](#)

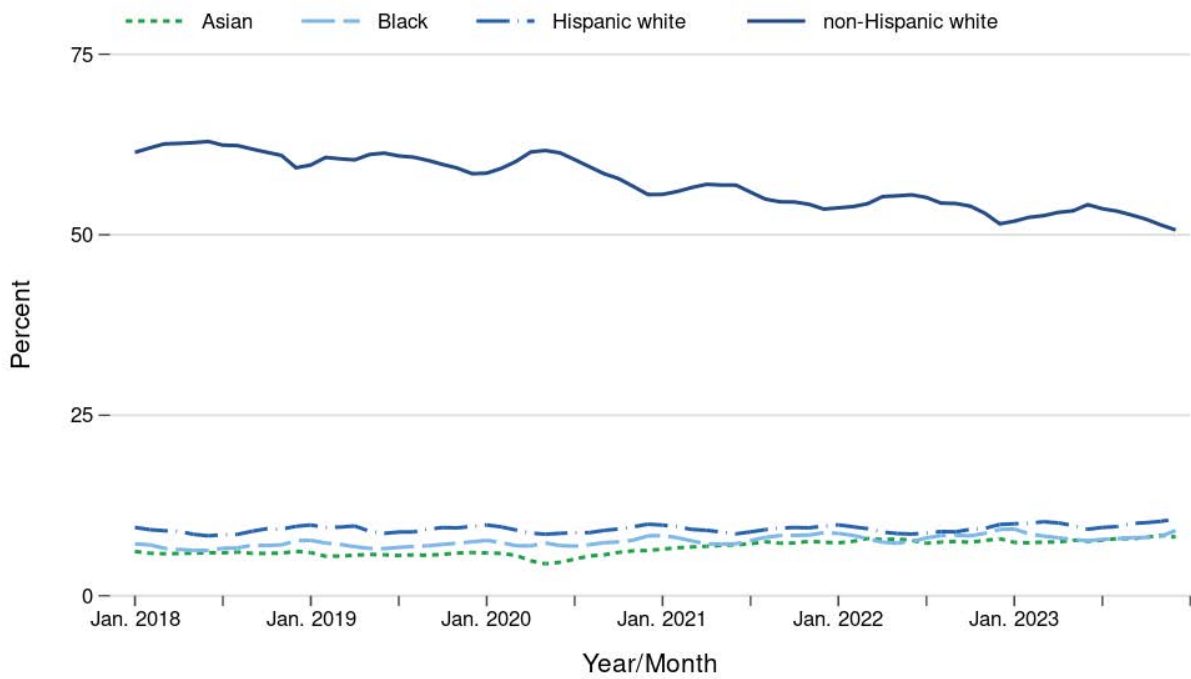
FIGURE 9B: NUMBER OF CLOSED-END HOME PURCHASE LOAN ORIGINATIONS BY RACE AND ETHNICITY (EXCLUDING NON-HISPANIC WHITE)



NOTE: Monthly originations of closed-end home purchase loans secured by site-built single-family homes between January 2018 and December 2023. [Underlying data can be found in appendix table A10.](#)

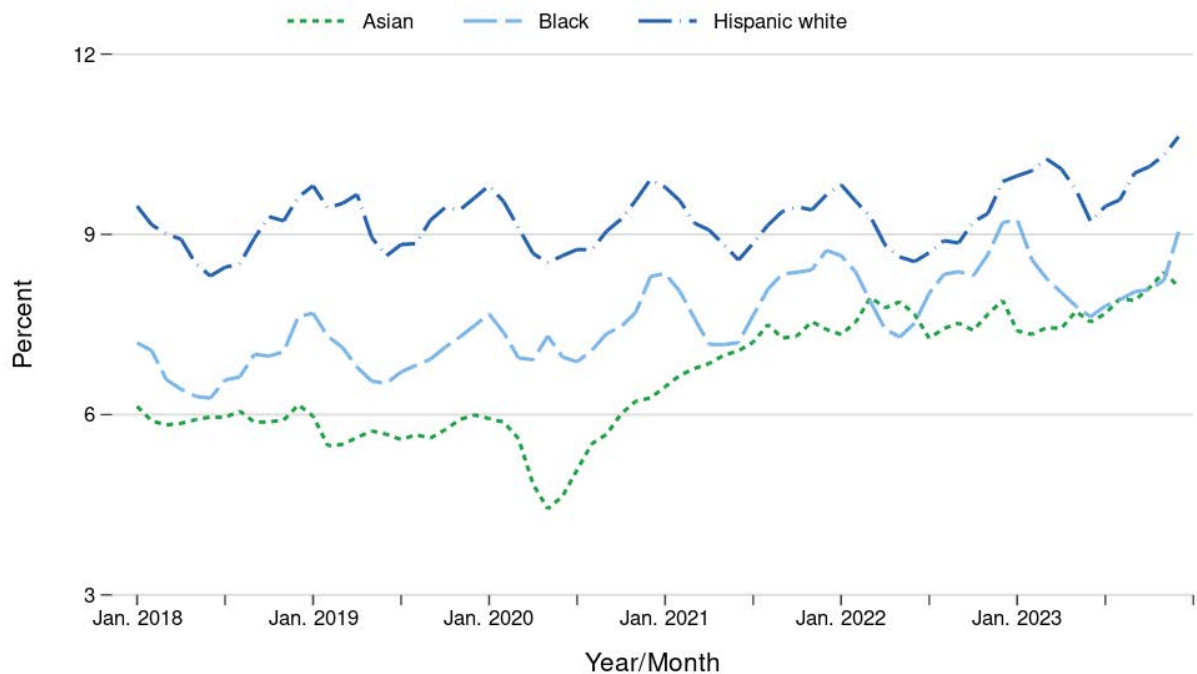
Figure 10A and 10B show the relative shares of monthly home purchase originations by racial/ethnic group. In 2023, non-Hispanic white borrowers' share among home purchase loans continued a downward trend that began in 2020 (Figure 10A). On the other hand, the share of home purchase originations for Hispanic white, Black, and Asian borrowers continued to stay at a relatively high level compared to the past years (Figure 10B).

FIGURE 10A: SHARE OF CLOSED-END HOME PURCHASE LOAN ORIGINATIONS BY RACE AND ETHNICITY



NOTE: Monthly originations of closed-end home purchase loans secured by site-built single-family homes between January 2018 and December 2023. The shares do not add up to 1 since the figure does not include the shares of other minority, joint, and missing. [Underlying data can be found in appendix table A11.](#)

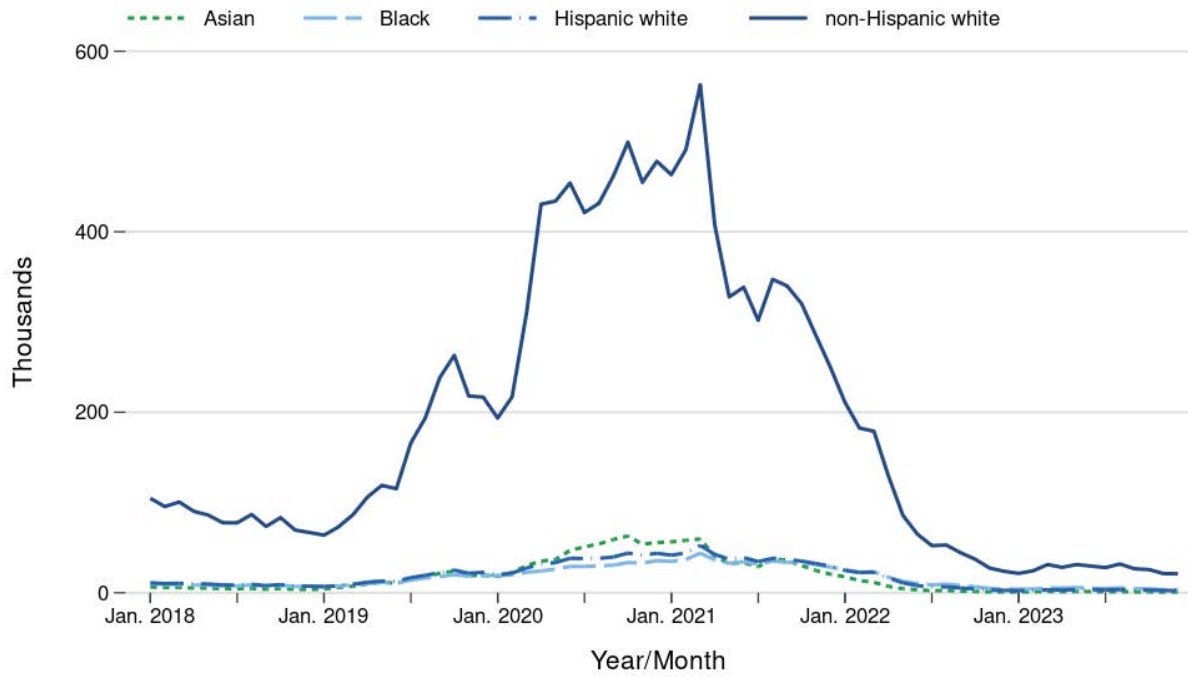
FIGURE 10B: SHARE OF CLOSED-END HOME PURCHASE LOAN ORIGINATIONS BY RACE AND ETHNICITY (EXCLUDING NON-HISPANIC WHITE)



NOTE: Monthly originations of closed-end home purchase loans secured by site-built single-family homes between January 2018 and December 2023. [Underlying data can be found in appendix table A11.](#)

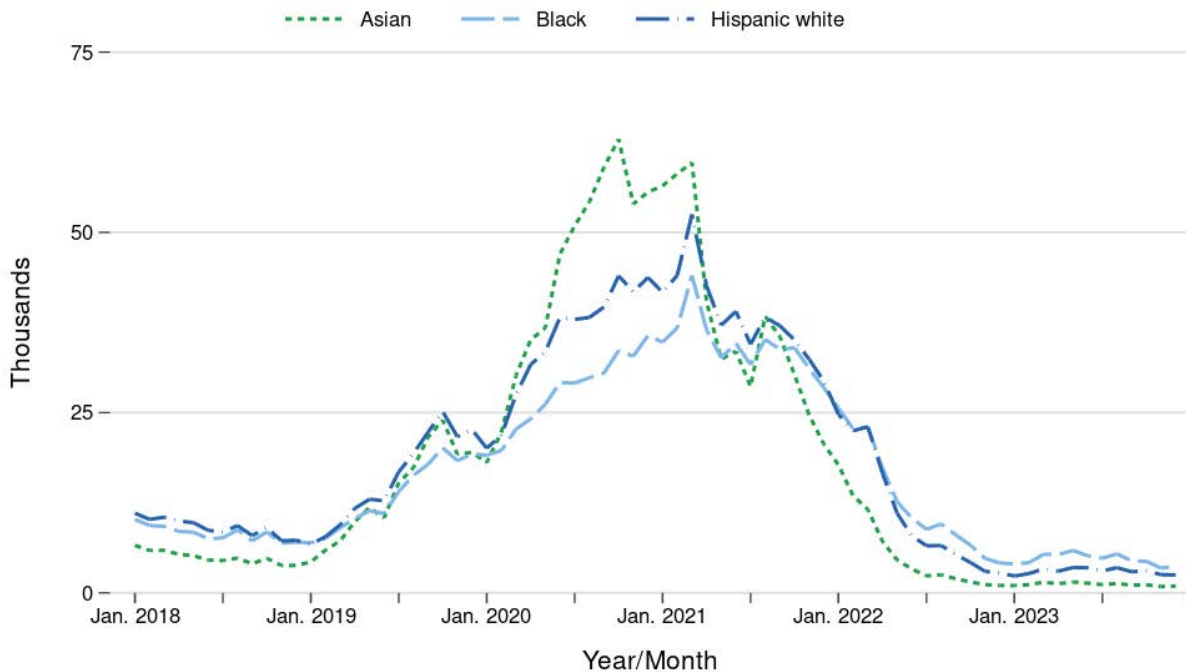
Plotting the monthly origination volume of closed-end refinance loans broken down by race/ethnicity, Figure 11A shows the refinance boom during 2019 and 2020 turned bust in 2022, following the downturn in 2021 for all major racial/ethnic groups. In 2023, the monthly volume of closed-end refinance loans remained small across all racial/ethnic groups. Figure 11B shows that just as the refinance volume increased the fastest for Asian borrowers in 2019 and 2020, it also declined the fastest in 2021 and 2022 with the volume remaining low in 2023.

FIGURE 11A: NUMBER OF CLOSED-END REFINANCE LOAN ORIGINATIONS BY RACE AND ETHNICITY



NOTE: Monthly originations of closed-end refinance loans secured by site-built single-family homes between January 2018 and December 2023. [Underlying data can be found in appendix table A12.](#)

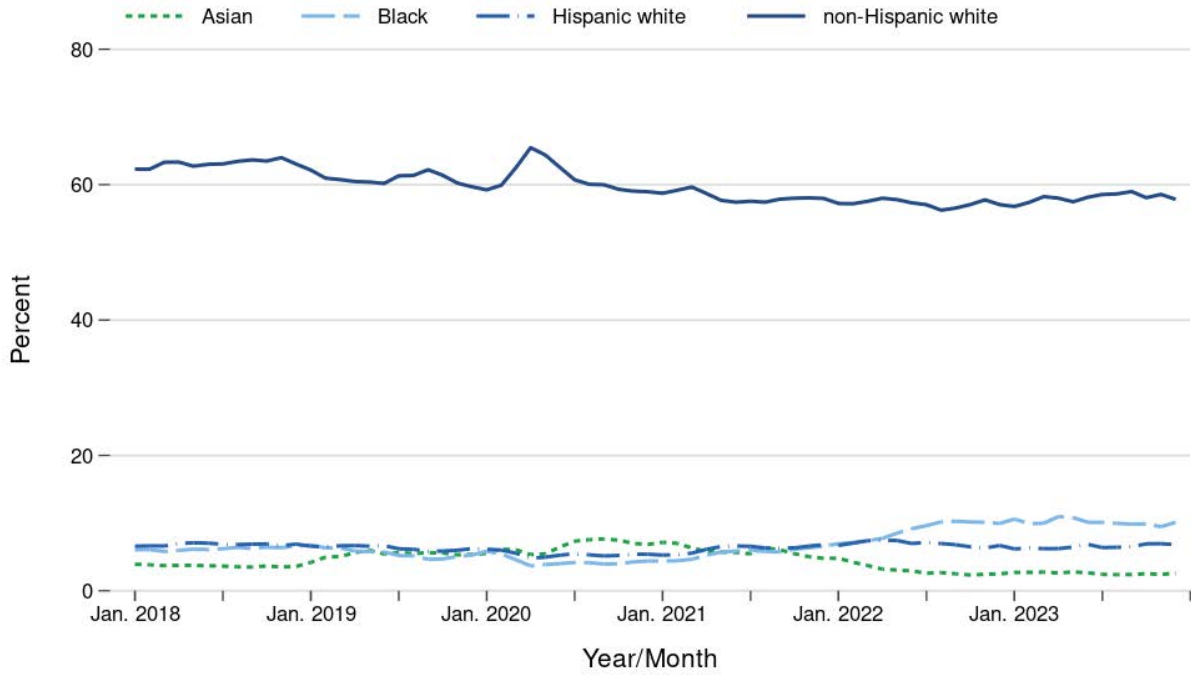
FIGURE 11B: NUMBER OF CLOSED-END REFINANCE LOAN ORIGINATIONS BY RACE AND ETHNICITY (EXCLUDING NON-HISPANIC WHITE)



NOTE: Monthly originations of closed-end refinance loans secured by site-built single-family homes between January 2018 and December 2023. [Underlying data can be found in appendix table A12.](#)

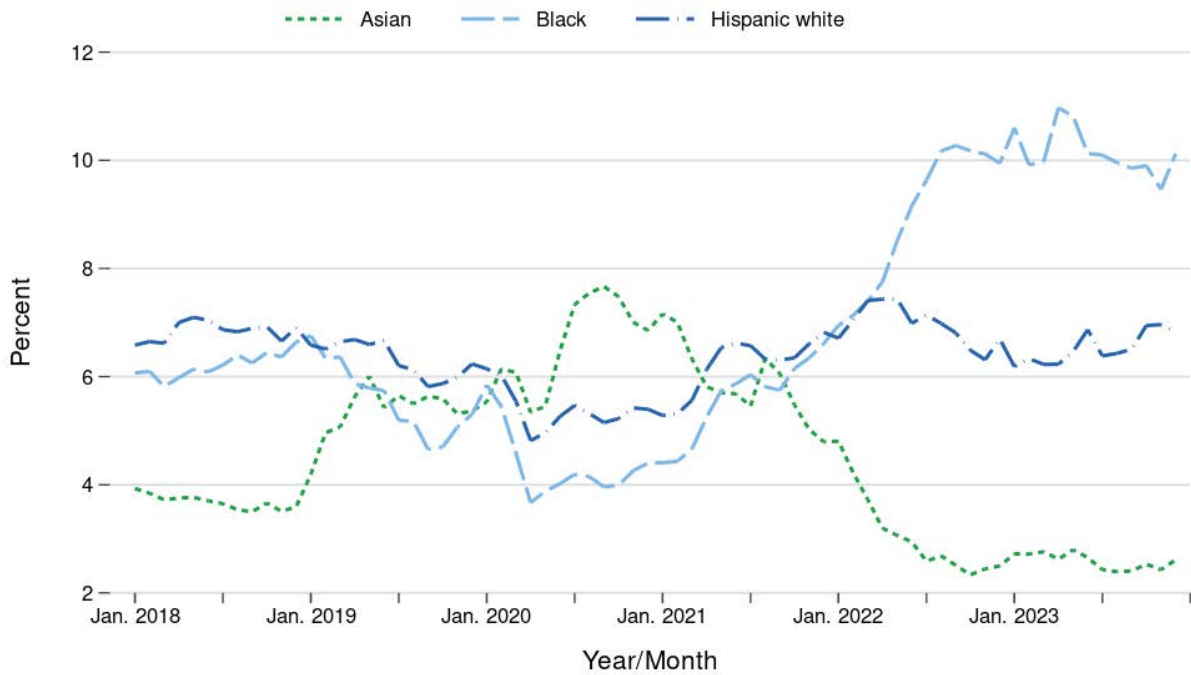
Figures 12A and 12B show the relative shares of monthly refinance originations by racial/ethnic group. Figure 12B shows a significant decline in Asian borrowers' share of refinance loans in 2021 and 2022, which remained low in 2023. At its peak, Asian borrowers accounted for close to 7.7 percent of all refinance loans in September 2020, exceeding the shares of Black and Hispanic white borrowers. By the end of 2022, the share of refinance loans by Asian borrowers dropped to about 2.5 percent, far below the shares of Black and Hispanic white borrowers and remained at that level throughout 2023. In comparison, the Black borrowers' shares of refinance loans steadily increased from 2020 to 2022 and remained steady in 2023. Hispanic white borrowers' share among refinance loans also remained at a consistent level in 2023.

FIGURE 12A: SHARE OF CLOSED-END REFINANCE LOAN ORIGINATIONS BY RACE AND ETHNICITY



NOTE: Monthly originations of closed-end refinance loans secured by site-built single-family homes between January 2018 and December 2023. [Underlying data can be found in appendix table A13.](#)

FIGURE 12B: SHARE OF CLOSED-END REFINANCE LOAN ORIGINATIONS BY RACE AND ETHNICITY (EXCLUDING NON-HISPANIC WHITE)



NOTE: Monthly originations of closed-end refinance loans secured by site-built single-family homes between January 2018 and December 2023. [Underlying data can be found in appendix table A13.](#)

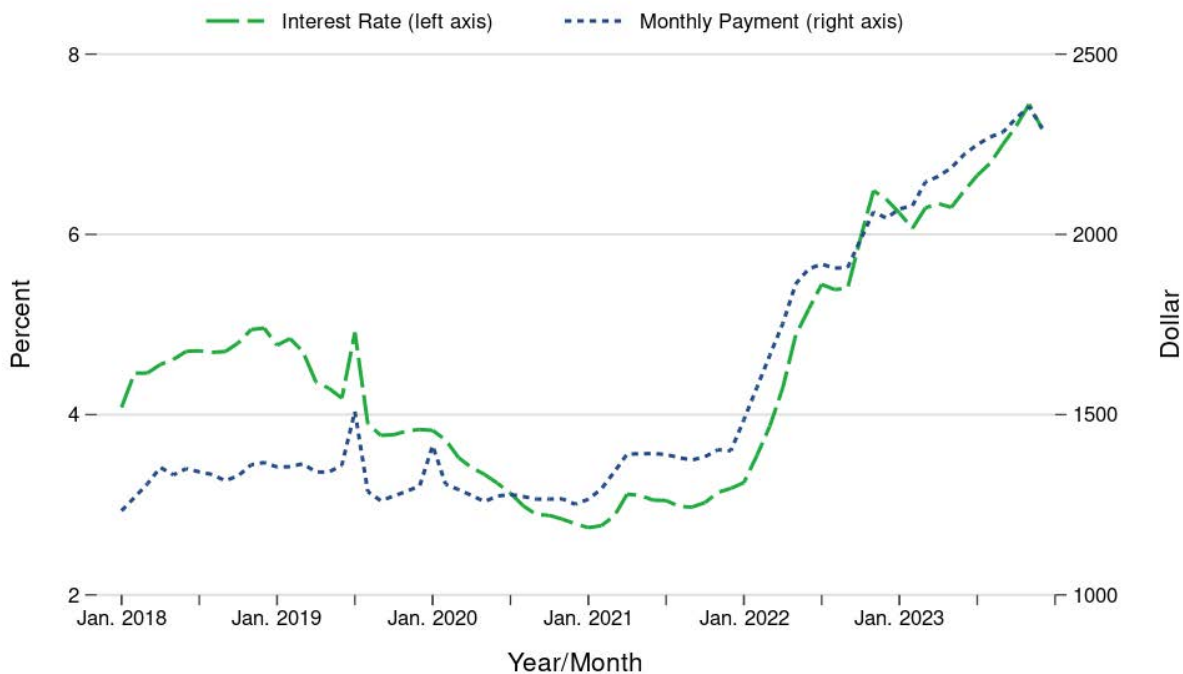
5. Trends in interest rates and mortgage payment burdens

Rising mortgage interest rate is the most defining feature of the mortgage market in 2022 and 2023. In this section, we discuss the impact of rising interest rates on borrowers' monthly payments and overall debt burdens, as well as the impact of increasing rates of debt on potential homebuyers' ability to qualify for a mortgage. In addition, we further the discussion on the upfront costs that borrowers paid and how they have changed because of the rising interest rate. We limit the analyses to closed-end home-purchase loans secured by site-built, single-family, and first-lien principal residence. Reverse mortgage loans have also been excluded from this analysis.

The green line (corresponding to the left axis) in Figure 13 plots the monthly average interest rates for 30-year fixed-rate closed-end conventional conforming loans originated to prime borrowers secured by first-lien principal residence. As the figure shows, after two years of decline, the mortgage interest rate began rising in 2021, and increased rapidly in 2022. The interest rate kept rising during most of 2023, albeit at a slower rate than in 2022.

One direct consequence of higher interest rates is the higher monthly payments borne by borrowers. Even though monthly payment information is not reported in the HMDA data, using the reported loan amounts, loan terms and interest rates, we can impute the monthly principal and interest payment of loans at origination. This does not include taxes and insurance, which also factor into the borrower's total monthly payment. The thicker orange line (corresponding to the right axis) in Figure 13 illustrates a sharp rise in monthly mortgage payment amounts since the beginning of 2022. While the average monthly payment excluding taxes and insurance for borrowers taking out a conventional conforming 30-year fixed-rate mortgage was mostly stable from 2018 to 2020, it began increasing in 2021, and increased rapidly in 2022 and 2023. For example, the average monthly payment increased from \$2,045 in December 2022 to \$2,295 in December 2023, which was a 12.2 percent increase in a span of one year. The size of the increase was not as large as the 46.1 percent increase from December 2021 to December 2022, but it is likely that it affected borrowers' finances.

FIGURE 13: AVERAGE PRIME INTEREST RATE AND MONTHLY MORTGAGE PAYMENT FOR 30-YEAR FIXED-RATE CONVENTIONAL CONFORMING MORTGAGES



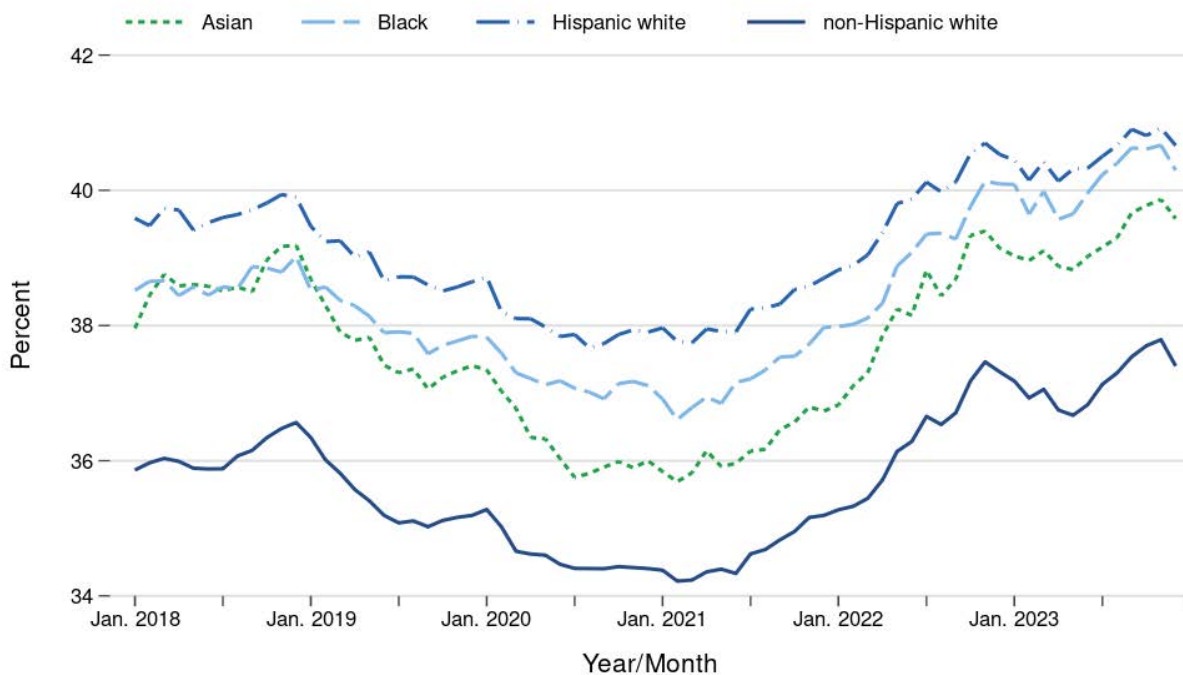
NOTE: The chart represents newly originated home-purchase closed-end loans secured by site-built single-family first-lien principal residence, excluding reverse mortgages. Prime borrowers are defined as those with a credit score of at least 720 and CLTV of around 80 percent (79 percent \leq CLTV \leq 80 percent). [Underlying data can be found in appendix table A14.](#)

One measure of a consumer’s total debt burden is the back-end debt-to-income ratio (DTI), which is calculated by dividing an applicant’s or a borrower’s total monthly debt – including mortgage payments or housing expenses, plus other debts such as credit card debts and car loans – by their gross income. A higher DTI means that consumers have more debt obligations relative to their income.

Figure 14 plots the average DTI for 30-year fixed-rate conventional conforming home purchase loans by race and ethnicity. Overall, the average DTI declined between the end of 2018 and the beginning of 2021 with the historic decline in mortgage interest rates taking place over the same period. The trend has reversed since the beginning of 2021. The average DTI rose significantly for all groups and exceeded the 2018 levels by the end of 2022. It dropped slightly in late 2022 and the early part of 2023 but rose again in the rest of 2023 although at a much slower rate than in the previous two years. The average DTIs for Hispanic white and Black borrowers remained at over 40 percent in December 2023. Overall, compared to a few years ago, consumers taking

out new mortgages are likely devoting a higher share of their income towards servicing debts, especially mortgage payments, with the average DTI for all groups remaining elevated.

FIGURE 14: AVERAGE DEBT-TO-INCOME RATIO (DTI) FOR 30-YEAR FIXED-RATE CONVENTIONAL CONFORMING MORTGAGES, BY RACE AND ETHNICITY

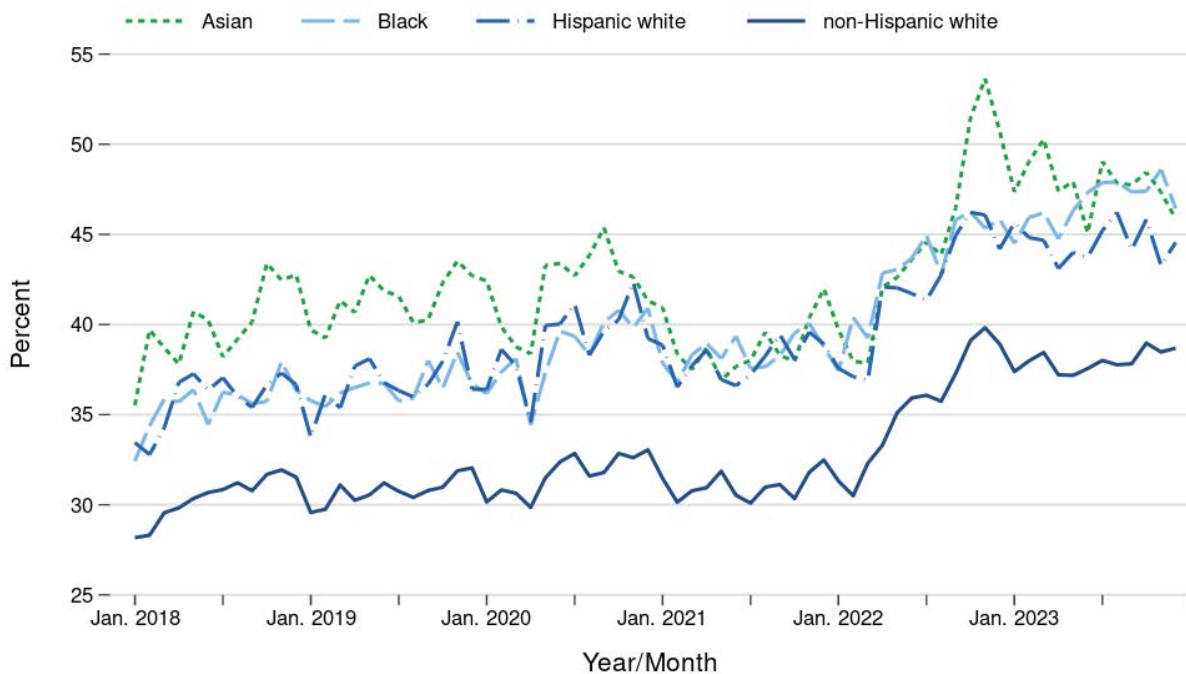


NOTE: The chart represents newly originated home-purchase closed-end loans secured by site-built single-family first-lien principal residence, excluding reverse mortgages. Underlying data can be found in appendix table A15.

Rising interest rates also affect whether consumers qualify for mortgage loans. For many mortgage applicants who are on the margin of qualifying, the higher projected DTI could potentially lead to their applications being rejected, when they would have otherwise been approved given a lower DTI. Figure 15 plots the percentages of applications that reported “debt-to-income ratio” as the principal reason or one of the reasons for denial among the home purchase mortgage applications that were denied.

Since 2021, DTI has become more likely to be reported as a denial reason for denied applications of all major racial/ethnic groups than previous years. But the sharp rise has stabilized in 2023. For example, Asian applicants saw a 4.8 percentage point decrease in the share of applications with DTI reported as a denial reason from December 2022 to December 2023. On the other hand, the share of Black and Hispanic white applicants with DTI reported as a denial reason increased slightly over the same time period.

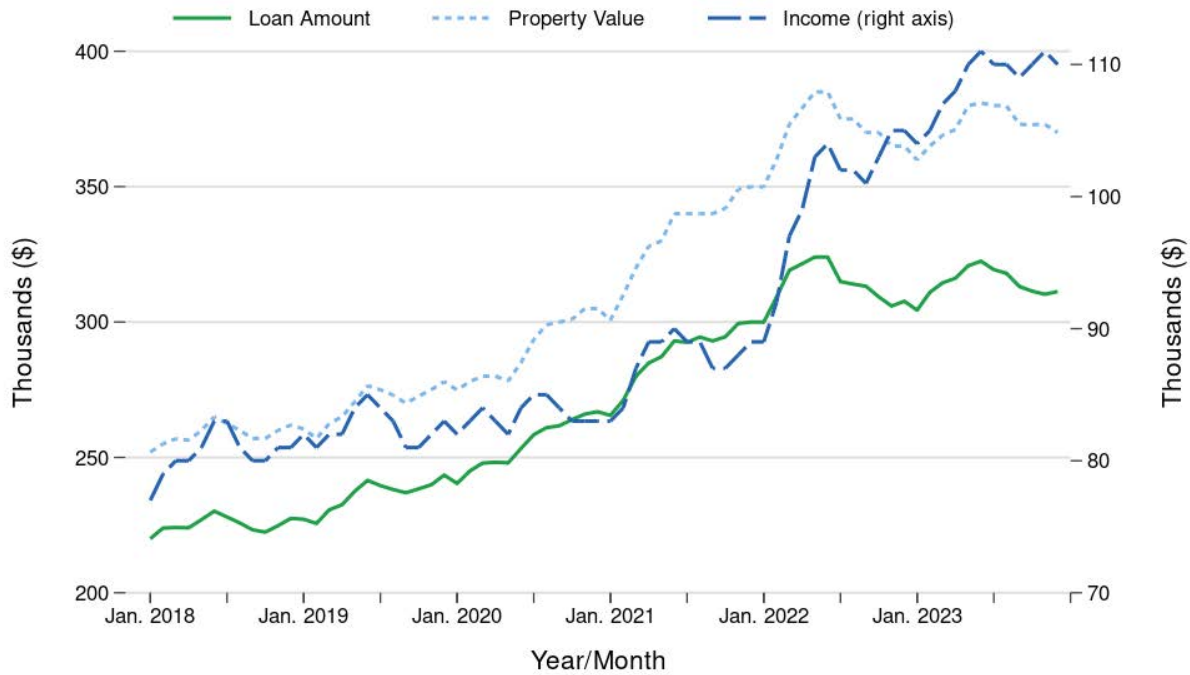
FIGURE 15: PERCENTAGE OF DENIALS WITH DTI REPORTED AS A REASON



NOTE: The chart represents closed-end home-purchase mortgage applications secured by site-built single-family first-lien principal residence, excluding reverse mortgages. [Underlying data can be found in appendix table A16.](#)

To further understand the trends in DTI and the share of borrowers denied due to high DTI, we present Figure 16A. Since DTI is a ratio of total debt burden over income, the figure presents the trends in the components of DTI. More specifically, Figure 16A presents the trends in the median loan amount, the median property value and the median reported borrower income for the closed-end home-purchase mortgage loans secured by site-built single-family first-lien principal residence, excluding reverse mortgages. Notably, while the upswing of the median loan amount and property value has mostly stabilized since May 2022, the reported income of home purchase borrowers has risen faster than the change in the median loan amount and property values. Moreover, the median income continued to rise during the first half of 2023. It is important to note that the rising median income does not mean that the same set of borrowers have become richer over time. It reflects how the mix of home purchase borrowers have tilted more towards borrowers of higher income, since the higher interest rate and payment burden require larger income to qualify for mortgages.

FIGURE 16A: MEDIAN LOAN AMOUNT, MEDIAN PROPERTY VALUE AND MEDIAN REPORTED BORROWER INCOME OF HOME PURCHASE LOANS



NOTE: The sample consists of closed-end home-purchase mortgage applications secured by site-built single-family first-lien principal residence, excluding reverse mortgages. [Underlying data can be found in appendix table A.7.](#)

Figure 16B plots the median ratio of reported income of borrowers over loan amount and the median ratio of reported income of borrowers over property value of home purchase loans. After declining for several years, the income to loan amount as well as the income to property value ratios have coincided with the increase in interest rates. The figure shows that the increase in the ratios from the beginning of 2022 to the end of 2023 is largely driven by the increase in borrower income since the property value and loan amount have not changed much during this time period.

FIGURE 16B: MEDIAN RATIOS OF REPORTED BORROWER INCOME TO LOAN AMOUNT AND TO PROPERTY VALUE OF HOME PURCHASE LOANS



NOTE: The sample consists of closed-end home-purchase mortgage applications secured by site-built single-family first-lien principal residence, excluding reverse mortgages. [Underlying data can be found in appendix table A18.](#)

The composition shift of home purchase borrowers towards higher income borrowers could potentially explain the observation that despite the increase in mortgage payment burden, the average DTI of home purchase borrowers and the share of home purchase borrowers denied due to high DTI have not changed much from last year.

6. Lending institutions

In 2023, 5,103 financial institutions reported closed-end applications and originations excluding reverse mortgages, up from 4,451 in 2022 and 4,332 in 2021. As discussed in Section 2, the overall market volume of closed-end transactions excluding reverse mortgages, however, declined from 11.8 million applications in 2022 to 7.9 million in 2023. The financial institutions are broadly categorized into depository institutions and non-depository institutions. Table 5A shows the number of depository institutions and non-depository institutions among the closed-end reporting institutions in 2023. Depository institutions included 2,516 banks and thrifts (hereafter, banks) of which 1,677 were small (assets less than \$1 billion), as well as 1,574 credit unions. Non-depository institutions included 91 mortgage companies affiliated with depository institutions and 920 independent mortgage companies.²⁵

Among depository institutions, banks collectively originated most of the reported closed-end loans, whereas, among non-depository institutions, independent mortgage companies originated significantly more loans than mortgage companies affiliated with depository institutions. For example, banks collectively originated 1.3 million loans, accounting for 27.9 percent of all reported closed-end originations in 2023. Credit unions originated 529,000 loans, accounting for only 11.4 percent. Independent mortgage companies originated 2.6 million loans, accounting for 56.1 percent of all reported loans, whereas affiliates of depository institutions originated only 208,000 loans or 4.5 percent.

In 2023, independent mortgage companies originated 61.9 percent (about 1.7 million) of all closed-end home purchase loans, similar to 61.6 percent in 2022. They also originated 64.3 percent (about 355,000) of all closed-end refinance loans, which compares to 62.3 percent in 2022.²⁶

A significant percentage of institutions (42.2 percent or 2,152 out of 5,103) reported fewer than 100 closed-end originations in 2023, accounting for about 103,000 total originations or about

²⁵ Data on bank assets were drawn from the Federal Deposit Insurance Corporation's Reports of Condition and Income. The \$1 billion threshold is based on the combined assets of all banks within a given banking organization. Fed. Fin. Inst. Examination Council, *HMDA Data Publication*, <https://ffiec.cfpb.gov/data-publication/> (data from the HMDA Reporter Panel can be used to help identify the various types of institutions).

²⁶ See "2022 Mortgage Market Activity and Trends," available at <https://www.consumerfinance.gov/data-research/research-reports/data-point-2022-mortgage-market-activity-trends/>.

2.2 percent of all originations. About 8.7 percent of institutions (442 out of 5,103) originated fewer than 25 loans, totaling around 6,000 originations.²⁷

As in previous years, several differences exist between depository institutions and non-depository institutions with respect to the closed-end activity reported in 2023. First, depository institutions originated a significantly higher percentage of conventional home purchase loans than non-depository institutions. Second, overall, smaller shares of home purchase loans originated by depository institutions went to minority borrowers and properties in LMI neighborhoods than non-depository institutions. Third, non-depository institutions sold more of their originated home purchase loans compared to depository institutions.

The HMDA data provide information on whether lenders sold originated loans within the same calendar year that they were originated, as well as the type of institution to which the lenders sold the loans, such as one of the GSEs or a banking institution.²⁸ Table 5A shows that non-depository institutions, particularly the ones that are affiliated mortgage companies, sold almost all of their loans in the same calendar year that they originated them. In contrast, depository institutions sold smaller shares of their loans than non-depository institutions. Among depository institutions, credit unions were the least likely to sell originated loans compared to banks. Credit unions sold 21.8 percent of their refinance loans and 38.7 percent of their home purchase loans in 2023. In comparison, during the same period, small banks and large banks sold 41.3 percent and 60.4 percent of their refinance loans and 58.2 percent and 61.3 percent of home purchase loans, respectively.

Compared to 2022, a similar share of originated loans was sold in 2023. In 2022, about 81.2 percent of home purchase loans and 79.3 percent of refinance loans were sold across all types of institutions. In 2023, the percent of loans sold increased to 82.3 percent for home purchase loans and dropped to 78.4 percent for refinance loans.

²⁷ These results include all originated dwelling-secured, closed-end loans, excluding reverse mortgages for all reporters.

²⁸ Because loan sales are recorded in the HMDA data only if the loans are originated and sold in the same calendar year, loans originated toward the end of the year are less likely to be reported as sold. For that reason, statistics on loan sales are computed using only loans originated during the first three quarters of the year.

TABLE 5A: LENDING ACTIVITIES BY INSTITUTION TYPES: CLOSED-END EXCLUDING REVERSE MORTGAGES

	Small Bank	Large Bank	Credit Union	Affiliated Mortgage Company	Independent Mortgage Company	All
Number of institutions	1677	839	1574	91	920	5103
Applications (thousands)	316	1854	933	292	4525	7920
Originations (thousands)	234	1060	529	208	2598	4627
Purchases (thousands)	2	393	8	139	670	1212
Institutions with originations <25: Number of institutions	117	34	190	6	95	442
Institutions with originations <25: Originations (thousands)	2	<1	3	<1	<1	6
Institutions with >= 25 originations < 100: Number of institutions	847	109	589	18	146	1710
Institutions with >= 25 originations < 100: Originations (thousands)	49	7	32	1	8	97
Institutions with >= 100 originations < 1000: Number of institutions	847	109	589	18	146	1710
Institutions with >= 100 originations < 1000: Originations (thousands)	141	205	211	13	151	721
Institutions with >= 1000 originations: Number of institutions	16	169	100	33	291	609
Institutions with >= 1000 originations: Originations (thousands)	41	848	282	194	2438	3803
Home purchase loans (thousands)	99	617	194	157	1731	2798
Home purchase: Conventional (percent)	82.4	84.4	86.5	58.5	60.8	68.4
Home purchase: LMI borrower (percent)	28.7	24.7	25.5	25.4	26.4	26.0
Home purchase: LMI neighborhood (percent)	16.3	17.4	17.0	17.3	20.6	19.3
Home purchase: Non-Hispanic White (percent)	71.9	58.5	58.9	49.0	49.3	52.7
Home purchase: Minority borrower (percent)	15.4	23.8	21.0	30.2	28.9	26.8
Home purchase: Sold (percent)	58.2	61.3	38.7	97.1	94.9	82.3
Refinance loans (thousands)	27	102	57	12	355	553
Refinance: Conventional (percent)	79.3	90.7	96.5	79.0	48.4	63.3
Refinance: LMI borrower (percent)	33.4	38.5	40.6	48.5	38.3	38.6
Refinance: LMI neighborhood (percent)	15.9	17.6	20.3	22.3	21.4	20.3
Refinance: Non-Hispanic White (percent)	74.2	66.7	66.0	66.9	52.8	58.1
Refinance: Minority borrower (percent)	10.9	19.0	19.0	16.4	21.7	20.3
Refinance: Sold (percent)	41.3	60.4	21.8	88.8	95.1	78.4

NOTE:

- (1) Small banks consist of those banks with assets (including the assets of all other banks in the same banking organization) of less than \$1 billion at the end of 2022. Affiliated mortgage companies are non-depository mortgage companies owned by or affiliated with a banking organization or credit union.
- (2) Closed-end first-lien mortgages for site-built single-family, principal-residence homes.
- (3) See Table 2A, note 3.
- (4) See Table 2A, note 4.

(5) See Table 2A, note 1. "Minority borrower" refers to non-white borrowers (excluding joint or missing) or Hispanic white applicants.

(6) Excludes originations made in the last quarter of the year because the incidence of loan sales tends to decline for loans originated toward the end of the year, as lenders report a loan as sold only if the sale occurs within the same year as origination.

SOURCE: FFIEC HMDA data; bank asset data drawn from Federal Deposit Insurance Corporation Reports of Condition and Income (<https://www.fdic.gov>).

In 2023, 1,221 financial institutions reported open-end applications and originations excluding reverse mortgages (Table 5B), an increase from the number of institutions reporting in 2022, 2021, and 2020 (1,150, 936, and 938 respectively). As discussed in Section 2, the overall market volume of open-end transactions excluding reverse mortgages decreased significantly from approximately 2.5 million applications in 2022 to 2.0 million in 2023.

HELOC originations are dominated by depository institutions. In 2023, 1,089 depository institutions, including 380 banks, of which 49 were small (assets less than \$1 billion), and 709 credit unions, originated a total of 988,000 HELOCs reported under HMDA, accounting for 95.1 percent of all HELOC originations reported. Only 132 non-depository institutions, including 8 affiliated mortgage companies and 124 independent mortgage companies reported HELOC originations, accounting for 4.9 percent of the market. Only a very small percentage (3.4 percent) of HELOCs were sold to other institutions.

TABLE 5B: LENDING ACTIVITIES BY INSTITUTION TYPES: OPEN-END EXCLUDING REVERSE MORTGAGES

	Small Bank	Large Bank	Credit Union	Affiliated Mortgage Company	Independent Mortgage Company	All
Number of institutions	49	331	709	8	124	1221
Applications (thousands)	5	1,187	725	<1	110	2,027
Originations (thousands)	4	572	411	<1	51	1,039
Purchases (thousands)	<1	21	6	<1	17	44
Institutions with originations < 100: Number of institutions	31	22	224	7	104	388
Institutions with originations < 100: Originations (thousands)	<1	1	5	<1	<1	6
Institutions with >= 100 originations < 500: Number of institutions	17	119	211	1	8	356
Institutions with >= 100 originations < 500: Originations (thousands)	3	28	36	<1	1	68
Institutions with >= 500 originations: Number of institutions	1	190	274	<1	12	477
Institutions with >= 500 originations: Originations (thousands)	1	544	371	<1	50	966
LMI borrower (percent)	21.4	23.9	24.6	25.6	18.7	23.9
LMI neighborhood (percent)	12.2	12.6	14.9	7.0	15.8	13.7
Minority borrower (percent)	81.8	70.0	63.7	61.9	55.0	66.8
Non-Hispanic White (percent)	6.2	13.6	16.8	5.1	22.0	15.2
Sold (percent)	<1	<1	1.8	5.9	50.4	3.4

NOTE:

- (1) See Table 5A, note 1.
- (2) See Table 2A, note 3.
- (3) See Table 2A, note 4.
- (4) See Table 5A, note 5.
- (5) See Table 5A, note 6.

Table 6A reports total originations, market share, and total purchases for the top 25 closed-end reporting institutions by the total number of closed-end originations and their lending characteristics²⁹, limited to first-lien mortgages for site-built single-family, principal-residence homes excluding reverse mortgages. Table 6B reports home purchase loan totals for the same top 25, and Table 6C refinance loan totals. Together the top 25 closed-end lenders originated 1.7 million loans in 2023, accounting for 36.5 percent of the national market, a decline from 37.2

²⁹ Some institutions may be part of a larger organization; however, the data in Tables 6A and 6B are at the reporter level. Because affiliate activity has declined markedly since the housing boom in the mid-2000s, a top 25 list at the organization level is not likely to be significantly different from Tables 6A and 6B.

percent last year. This is the second consecutive year where the share of closed-end originations for the top 25 lenders declined.³⁰

As in previous years, the top 25 lenders' combined market share in refinance loans is higher than their share in home purchase loans. In 2023, they originated 252,000 refinance loans, accounting for 45.6 percent of refinance loans by all reporting institutions, down from 50.3 percent in 2022. The top 25 lenders originated 1.1 million home purchase loans, or 39 percent of home purchase loans, up from 36.8 percent in 2022.

With about 288,000 originated loans, Rocket Mortgage continued to be the highest volume closed-end lender, with a market share of about 6.2 percent.³¹ Seventeen of the 25 top financial institutions were independent mortgage companies, 5 were large banks, 2 were affiliated mortgage companies, and 1 was a credit union. Six institutions, Lennar Mortgage LLC, CMG Mortgage INC., NewRez LLC, New American Funding LLC, Discover Bank, and 21st Mortgage Corporation, were new to the list of top 25 closed-end reporting institutions in 2023, with market shares of 1.0, 0.9, 0.7, 0.7, 0.7, 0.6 percent, respectively. NewRez LLC was previously on the list in 2021. Six institutions, AmeriSave Mortgage Corporation, Broker Solutions Inc., Flagstar Bank FSB, Freedom Mortgage Corporation, Home Point Financial Corporation, and Caliber Home Loans Inc. fell off the list.

Table 6D lists the top 25 HELOC reporting institutions by origination volume in 2023. In total, the top 25 HELOC reporters accounted for 461,000 HELOC originations or 44.4 percent, of all HELOC originations reported under HMDA in 2023. All but three of the top 25 HELOC lenders were DIs and none of the DIs were small banks. The two largest HELOC reporters in 2023 were

³⁰ For the top 25 closed-end lenders in each of the past four years, see the Data Points for those years: “2022 Mortgage Market Activity and Trends,” available at <https://www.consumerfinance.gov/data-research/research-reports/data-point-2022-mortgage-market-activity-trends/>, “2021 Mortgage Market Activity and Trends,” available at <https://www.consumerfinance.gov/data-research/research-reports/data-point-2021-mortgage-market-activity-trends/>, “2020 Mortgage Market Activity and Trends,” available at <https://www.consumerfinance.gov/data-research/research-reports/2020-mortgage-market-activity-and-trends/>, and “2019 Mortgage Market Activity and Trends,” available at <https://www.consumerfinance.gov/data-research/research-reports/data-point-2019-mortgage-market-activity-and-trends/>.

³¹ Notably, loan counts and market shares derived from the HMDA data can differ from some other industry sources, such as the market shares compiled by Inside Mortgage Finance (<https://www.insidemortgagefinance.com/>). For HMDA reporting purposes, institutions report only mortgage applications for which they make the credit decision. Under HMDA, if an application was approved by a third party (such as a correspondent) rather than the lending institution, then that third party reports the loan as its own origination, and the lending institution reports the loan as a purchased loan. Alternatively, if a third party forwards an application to the lending institution for approval, then the lending institution reports the application under HMDA (and the third party does not report anything). In contrast, Inside Mortgage Finance considers loans to have been originated by the acquiring institution even if a third party makes the credit decision. Thus, many of the larger lending organizations that work with sizable networks of correspondents report considerable volumes of purchased loans in the HMDA data, while Inside Mortgage Finance considers many of these purchased loans to be originations.

Bank of America and PNC Bank, accounting for 6.2 and 5.1 percent, respectively of all HELOC originations reported in 2023. Last year, PNC Bank had the largest market share of HELOC origination at 5.8 percent.

Table 6E lists the top 10 reverse mortgage lenders by origination volume in 2023.³² In total, the top 10 reverse mortgage lenders accounted for close to 22,000 reverse mortgage originations, or approximately 88.6 percent, of all reverse mortgage originations reported under HMDA in 2023. Finance of America Reverse LLC was the largest reverse mortgage lender that reported HMDA data in 2023, accounting for approximately 30.6 percent of all reverse mortgage originations reported. This was followed by Mutual of Omaha Mortgage Inc., with an annual market share of 22.5 percent.

³² Applicants generally do not need to provide income information when applying for reverse mortgage loans. Therefore, the values for applicant income of reverse mortgages in the HMDA data are mostly “Not Applicable” and we excluded the LMI borrower column in Table 6E.

TABLE 6A: TOP 25 CLOSED-END RESPONDENTS BY TOTAL ORIGINATIONS

	Institution Type	Total Originations (thousands)	Market Share (percent)	Total Purchases (thousands)
Rocket Mortgage, Llc	Independent Mortgage Company	288	6.2	4.2
United Wholesale Mortgage, Llc	Independent Mortgage Company	287	6.2	1.3
Fairway Independent Mortgage Corporation	Independent Mortgage Company	85	1.8	<1
Crosscountry Mortgage, Llc	Independent Mortgage Company	84	1.8	<1
Loandepot.Com, Llc	Independent Mortgage Company	65	1.4	<1
Dhi Mortgage Company, Ltd.	Affiliated Mortgage Company	65	1.4	<1
Jpmorgan Chase Bank, National Association	Large Bank	63	1.4	128
Mortgage Research Center, Llc	Independent Mortgage Company	62	1.3	<1
Movement Mortgage, Llc	Independent Mortgage Company	59	1.3	<1
Guaranteed Rate, Inc.	Independent Mortgage Company	56	1.2	29
Navy Federal Credit Union	Credit Union	55	1.2	<1
Wells Fargo Bank, National Association	Large Bank	51	1.1	6
U.S. Bank National Association	Large Bank	49	1.1	58
Guild Mortgage Company Llc	Independent Mortgage Company	48	1.0	2
Lennar Mortgage, Llc	Independent Mortgage Company	47	1.0	<1
Pennymac Loan Services, Llc	Independent Mortgage Company	47	1.0	218
Cmg Mortgage, Inc.	Independent Mortgage Company	42	0.9	12
Newrez Llc	Independent Mortgage Company	32	0.7	71
New American Funding, Llc	Independent Mortgage Company	32	0.7	<1
Discover Bank	Large Bank	31	0.7	<1
Nationstar Mortgage Llc	Independent Mortgage Company	28	0.6	19
Bank Of America, National Association	Large Bank	27.9	0.6	8.4
21st Mortgage Corporation	Independent Mortgage Company	27.8	0.6	3.4
Cardinal Financial Company, Limited Partnership	Independent Mortgage Company	27.2	0.6	<1
Primelending, A Plainscapital Company	Affiliated Mortgage Company	26.0	0.6	<1
Top 25 Institutions	(-)	1,687.3	(-)	561.2
All Institutions	(-)	4,627.4	(-)	1,212.2

SOURCE: FFIEC HMDA data; bank asset data drawn from Federal Deposit Insurance Corporation Reports of Condition and Income (<https://www.fdic.gov>).

TABLE 6B: TOP 25 CLOSED-END RESPONDENTS BY TOTAL ORIGINATIONS: HOME PURCHASE LOANS

	Institution Type	Number (thousands)	Conventional (percent)	LMI borrower (percent)	LMI neighborhood (percent)	Hispanic White (percent)	Non- Minority borrower (percent)	Sold (percent)
Rocket Mortgage, Llc	Independent Mortgage Company	117	71.9	27.3	20.5	45.2	24.6	99.9
United Wholesale Mortgage, Llc	Independent Mortgage Company	221	66.2	24.9	21.3	46.4	33.6	99.9
Fairway Independent Mortgage Corporation	Independent Mortgage Company	69.7	63.9	29.3	20.6	56	21.6	99.7
Crosscountry Mortgage, Llc	Independent Mortgage Company	67.3	65.9	27.8	21.2	55.6	23.8	99.7
Loandepot.Com, Llc	Independent Mortgage Company	38.9	60.8	21.2	20	36.9	36.4	99.3
Dhi Mortgage Company, Ltd.	Affiliated Mortgage Company	61.3	44.8	20.2	14.6	37.7	40.8	99.6
Jpmorgan Chase Bank, National Association	Large Bank	44	95.2	22.3	20.9	52.2	34	81.6
Mortgage Research Center, Llc	Independent Mortgage Company	58.1	5.3	30.6	22.7	51	23.1	98.4
Movement Mortgage, Llc	Independent Mortgage Company	47.5	61.5	28.2	20.9	60.1	22.5	79
Guaranteed Rate, Inc.	Independent Mortgage Company	46.6	69	25.4	18.3	51.9	23.5	99.9
Navy Federal Credit Union	Credit Union	26.9	39.6	18.1	16.2	49.9	26.2	42.2
Wells Fargo Bank, National Association	Large Bank	29.5	92.9	17.4	11.7	53.1	26.3	67.8
U.S. Bank National Association	Large Bank	29	90.6	18.8	13.5	55.9	23	69.5
Guild Mortgage Company Llc	Independent Mortgage Company	36.9	61.7	29.4	21.2	55	19.9	99.7
Lennar Mortgage, Llc	Independent Mortgage Company	42.4	60.3	20.6	16	33.6	45.1	99.4
Pennymac Loan Services, Llc	Independent Mortgage Company	21	63.5	23.6	18.1	52.2	25.7	95.5
Cmg Mortgage, Inc.	Independent Mortgage Company	33.3	64.2	23.8	19.9	49.5	25.6	100
Newrez Llc	Independent Mortgage Company	18.7	58.2	30.5	21.1	54.7	26.2	95.1
New American Funding, Llc	Independent Mortgage Company	16.1	48.8	29.9	23.8	50.7	31	96.4
Discover Bank	Large Bank	<1	100	29.2	17.7	57.3	25	<1

	Institution Type	Number (thousands)	Conventional (percent)	LMI borrower (percent)	LMI neighborhood (percent)	Non- Hispanic White (percent)	Minority borrower (percent)	Sold (percent)
Nationstar Mortgage Llc	Independent Mortgage Company	3.7	74.0	17.8	13.6	57.1	15.2	98.1
Bank Of America, National Association	Large Bank	21.4	97.6	27.8	25.3	43	40.8	39.3
21st Mortgage Corporation	Independent Mortgage Company	<1	100	12.1	22.2	60.6	19.2	0
Cardinal Financial Company, Limited Partnership	Independent Mortgage Company	19.3	44	27.3	24	47.3	34.4	98.9
Primelending, A Plainscapital Company	Affiliated Mortgage Company	20.5	64.6	26.6	17.8	56.7	25	99.8
Top 25 Institutions	(-)	1,090.5	63.1	25.3	19.8	48.8	29	93.4
All Institutions	(-)	2,797.6	68.4	26.0	19.3	52.7	26.8	82.3

SOURCE: FFIEC HMDA data; bank asset data drawn from Federal Deposit Insurance Corporation Reports of Condition and Income (<https://www.fdic.gov>).

TABLE 6C: TOP 25 CLOSED-END RESPONDENTS BY TOTAL ORIGINATIONS: REFINANCE LOANS

	Institution Type	Number (thousands)	Conventional (percent)	LMI borrower (percent)	LMI neighborhood (percent)	Non- Hispanic White (percent)	Minority borrower (percent)	Sold (percent)
Rocket Mortgage, Llc	Independent Mortgage Company	104	49.3	42	21.5	56.3	19.2	100
United Wholesale Mortgage, Llc	Independent Mortgage Company	35	55.1	34.7	21.1	46.7	22.7	99.5
Fairway Independent Mortgage Corporation	Independent Mortgage Company	2.5	64.3	35.7	17.9	59.9	18.6	99.9
Crosscountry Mortgage, Llc	Independent Mortgage Company	5.5	41.1	38.3	21.6	51.5	19.5	99.9
Loandepot.Com, Llc	Independent Mortgage Company	17.7	36.4	45.3	22.4	33.8	16.2	99.5
Dhi Mortgage Company, Ltd.	Affiliated Mortgage Company	<1	88.9	22.2	11.1	66.7	11.1	100
Jpmorgan Chase Bank, National Association	Large Bank	8.1	96	44.3	21.6	62.2	29	92.5
Mortgage Research Center, Llc	Independent Mortgage Company	1.7	10.3	30.4	19.4	53.3	17	98.5
Movement Mortgage, Llc	Independent Mortgage Company	2.1	73	34.5	18.4	68.5	16.9	76.8
Guaranteed Rate, Inc.	Independent Mortgage Company	2.4	79.7	30.4	16.1	56.8	18.9	99.9
Navy Federal Credit Union	Credit Union	2.3	56.5	24.1	19.3	49.1	33.6	9.8
Wells Fargo Bank, National Association	Large Bank	12	96	40.5	23.1	36.5	44.4	96.4
U.S. Bank National Association	Large Bank	3.5	96	38.6	18.2	67.9	16.6	73.4
Guild Mortgage Company Llc	Independent Mortgage Company	2.5	66.3	36.5	20	60.3	18.1	99.8
Lennar Mortgage, Llc	Independent Mortgage Company	<1	100	<1	33.3	66.7	33.3	100
Pennymac Loan Services, Llc	Independent Mortgage Company	12.8	31.4	30.2	22	56	27.3	100
Cmg Mortgage, Inc.	Independent Mortgage Company	1.9	80.6	25.6	16.3	53.8	21.4	100
Newrez Llc	Independent Mortgage Company	9	49.8	44	24.3	58.8	26.3	98.9
New American Funding, Llc	Independent Mortgage Company	3.3	32.6	47.8	24	64.5	24.3	99.1
Discover Bank	Large Bank	1.2	100	38.4	23.6	58.3	20.9	<1
Nationstar Mortgage Llc	Independent Mortgage Company	19	58.3	42.6	23	56.4	23.1	100
Bank Of America, National Association	Large Bank	2.3	99.1	35.1	18.7	56.4	27.5	62.3
21st Mortgage Corporation	Independent Mortgage Company	0	0	0	0	0	0	0
Cardinal Financial Company, Limited Partnership	Independent Mortgage Company	2.4	37.0	34.5	22.1	51.3	24.1	100
Primelending, A Plainscapital Company	Affiliated Mortgage Company	1.3	83.3	30.7	17	64.5	19.5	99.8
Top 25 Institutions	(-)	252	54.6	39.8	21.6	53	22.2	97.2
All Institutions	(-)	553	63.3	38.6	20.3	58.1	20.3	78.4

SOURCE: FFIEC HMDA data; bank asset data drawn from Federal Deposit Insurance Corporation Reports of Condition and Income (<https://www.fdic.gov>).

TABLE 6D: TOP 25 OPEN-END RESPONDENTS BY TOTAL ORIGINATIONS

	Institution Type	Total Originations (count)	Market Share (percent)	Total Purchases (count)	LMI borrower (percent)	LMI neighborhood (percent)	Non-Hispanic White (percent)	Minority borrower (percent)	Sold (percent)
Bank Of America, National Association	Large Bank	63,918	6.2	1	21.5	11.7	58.0	24.4	0.0
Pnc Bank, National Association	Large Bank	52,865	5.1	<1	24.9	13.0	67.1	15.2	0.0
Citizens Bank, National Association	Large Bank	49,286	4.7	<1	30.6	14.6	68.8	15.8	0.0
The Huntington National Bank	Large Bank	26,175	2.5	<1	32.3	13.0	73.1	7.3	0.0
Truist Bank	Large Bank	25,870	2.5	<1	26.6	13.0	74.5	14.9	0.0
Figure Lending Llc	Independent Mortgage Company	24,486	2.4	16,860	20.0	15.9	58.0	20.3	72.3
U.S. Bank National Association	Large Bank	23,124	2.2	<1	21.9	12.5	67.5	15.0	0.0
State Employees'	Credit Union	19,188	1.8	<1	28.8	20.2	67.2	22.9	0.0
Navy Federal Credit Union	Credit Union	16,206	1.6	1	22.2	15.2	44.8	34.5	0.0
Fifth Third Bank, National Association	Large Bank	15,630	1.5	<1	34.7	12.7	84.9	12.5	0.0
Third Federal Savings And Loan Association Of Cleveland	Large Bank	13,575	1.3	<1	16.2	11.2	67.2	13.5	0.0
Coastal Community Bank	Large Bank	12,403	1.2	<1	22.2	19.7	51.8	20.2	0.0
Regions Bank	Large Bank	12,344	1.2	<1	26.9	13.7	78.1	16.0	0.0
Td Bank, National Association	Large Bank	12,153	1.2	<1	17.9	13.2	63.6	17.1	0.0
Boeing Employees Credit Union	Credit Union	11,396	1.1	<1	23.8	19.4	61.1	19.1	0.0
Bmo Bank National Association	Large Bank	9,935	1.0	<1	30.7	11.9	71.1	15.8	0.0
Summit Credit Union	Credit Union	9,802	0.9	<1	24.7	10.7	66.4	5.8	0.0
Flagstar Bank, N.A.	Large Bank	8,695	0.8	<1	17.4	13.2	60.8	17.1	0.0
America First Federal Credit Union	Credit Union	8,630	0.8	<1	23.4	12.5	67.4	15.3	0.0
United Wholesale Mortgage, Llc	Independent Mortgage Company	7,531	0.7	27	19.0	15.6	46.6	26.8	98.3
Zions Bancorporation, N.A.	Large Bank	7,274	0.7	<1	15.3	11.7	74.3	18.2	0.0
First-Citizens Bank & Trust Company	Large Bank	7,263	0.7	<1	13.4	11.4	66.7	7.1	0.0

	Institution Type	Total Originations (count)	Market Share (percent)	Total Purchases (count)	LMI borrower (percent)	LMI neighborhood (percent)	Non-Hispanic White (percent)	Minority borrower (percent)	Sold (percent)
Desert Financial Credit Union	Credit Union	6,799	0.7	<1	24.8	16.6	61.2	22.6	0.0
Homebridge Financial Services, Inc.	Independent Mortgage Company	6,744	0.6	<1	16.2	16.9	44.7	28.0	40.7
Top 25 Institutions	(-)	461,390	(-)	16,889	24.7	13.9	65.3	17.7	5.4
All Institutions	(-)	1,039,056	(-)	44,123	23.9	13.7	66.8	15.2	4.4

SOURCE: FFIEC HMDA data; bank asset data drawn from Federal Deposit Insurance Corporation Reports of Condition and Income (<https://www.fdic.gov>).

TABLE 6E: TOP 10 REVERSE MORTGAGE RESPONDENTS BY TOTAL ORIGINATIONS (PERCENT EXCEPT AS NOTED)

	Institution Type	Total Originations (count)	Market Share (percent)	Total Purchases (count)	LMI neighborhood (percent)	Non-Hispanic White (percent)	Minority borrower (percent)	Sold (percent)
Finance Of America Reverse Llc	Independent Mortgage Company	7,742	30.6	478	19.0	57.5	10.5	98.2
Mutual Of Omaha Mortgage, Inc.	Independent Mortgage Company	5,688	22.5	153	20.9	64.5	10.6	75.2
Longbridge Financial, Llc	Independent Mortgage Company	3,251	12.8	3113	16.6	76.2	12.1	19.0
Phh Mortgage Corporation	Independent Mortgage Company	1,684	6.7	1943	23.7	72.0	16.8	100.0
Fairway Independent Mortgage Corporation	Independent Mortgage Company	1,224	4.8	0	17.7	31.7	3.8	99.6
Open Mortgage, Llc	Independent Mortgage Company	697	2.8	11	28.1	61.7	23.0	67.8
Traditional Mortgage Acceptance Corporation	Independent Mortgage Company	628	2.5	130	22.9	65.6	12.4	100.0
Guild Mortgage Company Llc	Independent Mortgage Company	619	2.4	0	27.1	61.2	13.7	100.0
Hightechlending Inc	Independent Mortgage Company	453	1.8	1	22.1	58.5	21.6	64.5
Cherry Creek Mortgage, Llc	Independent Mortgage Company	452	1.8	0	26.8	48.9	19.7	86.1
Top 10 institutions	(-)	22,438	(-)	5,829	20.3	62.0	11.8	78.9
All institutions	(-)	25,312	(-)	6,558	20.6	62.2	12.6	76.8

SOURCE: FFIEC HMDA data; bank asset data drawn from Federal Deposit Insurance Corporation Reports of Condition and Income (<https://www.fdic.gov>).

7. Conclusion

The 2023 HMDA data are the sixth year of data that reflect changes implemented by the 2015 HMDA rule. Overall, 2023 was a year marked by a significant downturn of mortgage lending activities across all major segments. The total number of applications and originations dropped significantly in 2023 with the number of applications decreasing by about 4.3 million or 30.3 percent and originations decreasing by 2.7 million or 32.2 percent. The significant decline occurred in both home purchase and refinance lending but was more prominent in refinance, with the closed-end site-built single-family refinance originations decreasing by 64.2 percent from a year ago. The decline continued throughout the year. By the end of 2023, the only refinance originations left in the market were a small number of cash-out refinance loans. There was an increase in denial rates year-to-year for both home purchase and refinance applications.

The median total loan costs jumped significantly in 2023. A higher percentage of borrowers reported having paid discount points in 2023 than any other year since this data point was collected in the HMDA data. Furthermore, borrowers who paid discount points also paid larger dollar amounts in points. Black and Hispanic white borrowers continued to have lower median credit scores and higher denial rates, in addition to paying higher median total loan costs relative to non-Hispanic white and Asian borrowers.

The average monthly mortgage payment at origination excluding taxes and insurance for borrowers rose significantly in 2023, driven almost entirely by the rise in mortgage interest rates. Despite the increase in the mortgage payment amount, the average DTI and the share of home purchase applications denied due to high DTI have not significantly changed year-over-year. This is likely driven by mortgage lenders requiring higher incomes to approve a loan. This led to the composition of borrowers shifting to higher income borrowers in 2023 compared to 2022.

APPENDIX

TABLE A1: DATA UNDERLYING FIGURE 1

Year/ Month	Median Interest Rate	Year/ Month (cont.)	Median Interest Rate (cont.)	Year/ Month (cont.2)	Median Interest Rate (cont.2)
2018m1	4	2020m1	3.75	2022m1	3.25
2018m2	4.25	2020m2	3.75	2022m2	3.5
2018m3	4.5	2020m3	3.5	2022m3	3.875
2018m4	4.5	2020m4	3.375	2022m4	4.25
2018m5	4.625	2020m5	3.374	2022m5	4.99
2018m6	4.75	2020m6	3.25	2022m6	5.25
2018m7	4.75	2020m7	3.125	2022m7	5.5
2018m8	4.75	2020m8	2.99	2022m8	5.45
2018m9	4.75	2020m9	2.875	2022m9	5.375
2018m10	4.75	2020m10	2.875	2022m10	5.99
2018m11	4.875	2020m11	2.875	2022m11	6.625
2018m12	4.99	2020m12	2.75	2022m12	6.49
2019m1	4.75	2021m1	2.75	2023m1	6.25
2019m2	4.625	2021m2	2.75	2023m2	6
2019m3	4.5	2021m3	2.875	2023m3	6.375
2019m4	4.375	2021m4	3.125	2023m4	6.375
2019m5	4.25	2021m5	3.125	2023m5	6.25
2019m6	4.125	2021m6	3	2023m6	6.5
2019m7	3.99	2021m7	3	2023m7	6.625
2019m8	3.875	2021m8	2.99	2023m8	6.875
2019m9	3.75	2021m9	2.989	2023m9	7
2019m10	3.75	2021m10	2.99	2023m10	7.25
2019m11	3.75	2021m11	3.125	2023m11	7.5
2019m12	3.775	2021m12	3.125	2023m12	7.125

NOTE: Monthly median interest rate (%) of 30-year fixed rate conventional conforming loans.

TABLE A2: DATA UNDERLYING FIGURE 2

Year	Loan Purpose	Mean Discount Points Paid (\$)	Median Discount Points Paid (\$)	Percent of Loans that Paid Discount Points
2018	Home Purchase	1,766	1,054	29.2
2018	Refinance	2,343	1,690	44.3
2019	Home Purchase	1,785	1,098	31.4
2019	Refinance	2,462	1,782	38.2
2020	Home Purchase	1,957	1,252	32.7
2020	Refinance	2,304	1,667	38.1
2021	Home Purchase	2,067	1,225	32.0
2021	Refinance	2,350	1,619	40.8
2022	Home Purchase	3,527	2,370	50.2
2022	Refinance	3,865	2,878	60.6
2023	Home Purchase	4,359	3,000	56.6
2023	Refinance	5,006	3,902	67.7

NOTE: Mean and median dollar amount of discount points paid and percent of loans that paid discount points for home purchase and refinance loans.

TABLE A3: DATA UNDERLYING FIGURE 3A

Year/Month	Home Purchase	Non-cash-out Refinance	Cash-out Refinance	Year/Month (cont.)	Home Purchase (cont.)	Non-cash-out Refinance (cont.)	Cash-out Refinance (cont.)
2018m1	233,021	96,062	94,409	2021m4	445,301	531,837	232,432
2018m2	237,422	84,173	90,476	2021m5	450,991	410,444	208,266
2018m3	334,641	84,400	99,443	2021m6	520,192	400,893	235,864
2018m4	354,458	73,063	93,015	2021m7	482,421	339,794	225,494
2018m5	412,877	69,977	91,515	2021m8	472,580	385,157	264,281
2018m6	439,324	60,865	85,452	2021m9	444,663	368,566	266,922
2018m7	407,963	58,086	87,292	2021m10	425,146	334,892	269,047
2018m8	421,971	63,522	98,136	2021m11	411,010	278,905	262,285
2018m9	330,661	52,706	83,612	2021m12	423,475	236,150	245,749
2018m10	350,828	60,279	95,589	2022m1	298,213	193,982	217,858
2018m11	317,809	51,083	79,033	2022m2	297,742	150,493	208,544
2018m12	295,203	50,388	77,114	2022m3	396,324	130,307	222,438
2019m1	222,652	51,944	70,687	2022m4	389,216	82,884	171,593
2019m2	248,262	62,697	77,678	2022m5	414,831	52,910	121,381
2019m3	325,706	74,881	90,069	2022m6	430,096	37,573	98,532
2019m4	366,493	99,810	99,718	2022m7	366,076	29,320	82,141
2019m5	435,112	116,418	106,518	2022m8	382,403	28,965	86,779
2019m6	424,039	113,717	101,838	2022m9	342,830	24,489	73,574
2019m7	433,764	177,466	119,732	2022m10	298,621	21,731	62,128
2019m8	428,219	209,161	135,935	2022m11	258,301	19,116	45,471
2019m9	367,840	267,521	147,042	2022m12	254,192	17,582	40,611
2019m10	376,523	300,525	164,903	2023m1	183,485	16,223	35,725
2019m11	329,827	252,510	141,979	2023m2	210,726	17,345	39,886
2019m12	348,197	253,560	144,368	2023m3	291,887	22,991	50,749
2020m1	257,949	231,342	126,855	2023m4	268,831	21,293	46,053
2020m2	269,465	266,285	128,425	2023m5	324,890	23,762	51,656
2020m3	348,055	381,027	153,339	2023m6	344,680	21,713	49,987
2020m4	323,527	525,851	175,357	2023m7	297,611	19,112	48,239
2020m5	315,846	540,875	178,183	2023m8	321,693	22,271	56,135
2020m6	422,823	595,301	179,512	2023m9	277,215	19,369	48,215
2020m7	489,558	574,095	167,578	2023m10	262,475	18,831	49,289
2020m8	465,523	597,581	169,641	2023m11	235,388	17,059	41,534
2020m9	466,082	643,181	179,813	2023m12	229,275	17,325	41,049
2020m10	472,996	692,256	211,357	2021m4	445,301	531,837	232,432
2020m11	412,895	630,636	197,996	2021m5	450,991	410,444	208,266
2020m12	448,630	666,871	209,593	2021m6	520,192	400,893	235,864
2021m1	312,988	651,967	200,855	2021m7	482,421	339,794	225,494
2021m2	309,835	684,745	215,610	2021m8	472,580	385,157	264,281
2021m3	428,413	763,059	266,629	2021m9	444,663	368,566	266,922

NOTE: Number of closed-end mortgage originations by loan purpose.

TABLE A4: DATA UNDERLYING FIGURE 3B

Year/Month	YOY Home Purchase (%)	YOY Non-cash-out Refinance (%)	YOY Cash-out Refinance (%)	Year/Month (cont.)	YOY Home Purchase (%) (cont.)	YOY Non-cash-out Refinance (%) (cont.)	YOY Cash-out Refinance (%) (cont.)
2019m1	-4.45	-45.93	-25.13	2021m7	-1.46	-40.81	34.56
2019m2	4.57	-25.51	-14.15	2021m8	1.52	-35.55	55.79
2019m3	-2.67	-11.28	-9.43	2021m9	-4.60	-42.70	48.44
2019m4	3.40	36.61	7.21	2021m10	-10.12	-51.62	27.30
2019m5	5.39	66.37	16.39	2021m11	-0.46	-55.77	32.47
2019m6	-3.48	86.83	19.18	2021m12	-5.61	-64.59	17.25
2019m7	6.32	205.52	37.16	2022m1	-4.72	-70.25	8.47
2019m8	1.48	229.27	38.52	2022m2	-3.90	-78.02	-3.28
2019m9	11.24	407.57	75.86	2022m3	-7.49	-82.92	-16.57
2019m10	7.32	398.56	72.51	2022m4	-12.59	-84.42	-26.17
2019m11	3.78	394.31	79.65	2022m5	-8.02	-87.11	-41.72
2019m12	17.95	403.22	87.21	2022m6	-17.32	-90.63	-58.23
2020m1	15.85	345.37	79.46	2022m7	-24.12	-91.37	-63.57
2020m2	8.54	324.72	65.33	2022m8	-19.08	-92.48	-67.16
2020m3	6.86	408.84	70.25	2022m9	-22.90	-93.36	-72.44
2020m4	-11.72	426.85	75.85	2022m10	-29.76	-93.51	-76.91
2020m5	-27.41	364.60	67.28	2022m11	-37.15	-93.15	-82.66
2020m6	-0.29	423.49	76.27	2022m12	-39.97	-92.55	-83.47
2020m7	12.86	223.50	39.96	2023m1	-38.47	-91.64	-83.60
2020m8	8.71	185.70	24.80	2023m2	-29.23	-88.47	-80.87
2020m9	26.71	140.42	22.29	2023m3	-26.35	-82.36	-77.19
2020m10	25.62	130.35	28.17	2023m4	-30.93	-74.31	-73.16
2020m11	25.19	149.75	39.45	2023m5	-21.68	-55.09	-57.44
2020m12	28.84	163.00	45.18	2023m6	-19.86	-42.21	-49.27
2021m1	21.34	181.82	58.33	2023m7	-18.70	-34.82	-41.27
2021m2	14.98	157.15	67.89	2023m8	-15.88	-23.11	-35.31
2021m3	23.09	100.26	73.88	2023m9	-19.14	-20.91	-34.47
2021m4	37.64	1.14	32.55	2023m10	-12.10	-13.34	-20.67
2021m5	42.79	-24.11	16.88	2023m11	-8.87	-10.76	-8.66
2021m6	23.03	-32.66	31.39	2023m12	-9.80	-1.46	1.08

NOTE: Year-over year percentage change of number of close-end mortgage originations by loan purpose.

TABLE A5: DATA FOR UNDERLYING FIGURE 4

Year/Month	Home Purchase	Non-cash-out Refinance	Cash-out Refinance	Year/Month (cont.)	Home Purchase (cont.)	Non-cash-out Refinance (cont.)	Cash-out Refinance (cont.)
2018m1	151,859	72,802	69,929	2021m1	214,415	503,846	179,465
2018m2	155,226	64,387	67,268	2021m2	213,617	529,857	193,187
2018m3	217,089	68,160	74,639	2021m3	298,391	590,577	238,593
2018m4	232,002	60,101	69,905	2021m4	309,296	411,834	205,419
2018m5	272,408	58,053	67,963	2021m5	314,110	314,299	182,850
2018m6	291,434	51,368	62,596	2021m6	364,093	309,237	204,725
2018m7	271,417	49,114	63,377	2021m7	335,291	258,305	193,341
2018m8	281,618	53,392	70,673	2021m8	327,686	305,089	225,059
2018m9	219,723	44,405	59,938	2021m9	307,032	293,888	227,699
2018m10	232,771	50,665	67,490	2021m10	292,718	264,902	228,084
2018m11	211,147	42,948	55,543	2021m11	280,172	222,361	219,095
2018m12	193,765	41,538	54,251	2021m12	284,338	188,681	201,944
2019m1	151,292	42,651	50,029	2022m1	210,647	157,932	180,812
2019m2	163,745	48,041	55,130	2022m2	212,014	126,119	171,699
2019m3	213,263	56,264	64,364	2022m3	282,155	112,879	181,098
2019m4	240,641	74,106	72,655	2022m4	276,491	72,959	134,394
2019m5	289,575	83,886	77,432	2022m5	295,048	47,045	90,574
2019m6	283,306	80,933	73,891	2022m6	304,742	33,628	71,682
2019m7	289,671	126,894	86,950	2022m7	256,520	26,391	57,727
2019m8	285,732	146,844	99,941	2022m8	266,685	25,904	59,008
2019m9	244,375	195,297	110,058	2022m9	237,989	21,773	48,441
2019m10	247,846	213,733	128,461	2022m10	205,037	19,262	40,679
2019m11	215,161	170,347	111,606	2022m11	177,650	17,058	30,280
2019m12	224,677	165,622	112,603	2022m12	172,764	15,734	27,312
2020m1	167,209	147,907	100,070	2023m1	127,916	14,696	23,781
2020m2	177,190	182,309	103,621	2023m2	146,861	15,467	26,831
2020m3	227,272	283,688	127,932	2023m3	200,855	20,447	33,624
2020m4	210,245	416,991	151,484	2023m4	182,923	18,758	30,015
2020m5	206,337	427,690	157,521	2023m5	223,371	20,800	33,811
2020m6	280,456	474,663	159,700	2023m6	237,931	19,019	32,473
2020m7	329,434	450,720	149,988	2023m7	206,690	16,666	31,024
2020m8	316,490	470,655	152,652	2023m8	225,213	19,166	36,298
2020m9	318,524	517,045	162,900	2023m9	192,832	16,733	32,060
2020m10	325,938	558,007	192,953	2023m10	181,608	16,739	32,759
2020m11	285,104	489,880	179,422	2023m11	161,369	15,336	27,954
2020m12	304,890	510,681	187,090	2023m12	154,637	14,652	28,106

NOTE: Number of closed-end conventional conforming originations by loan purpose.

TABLE A6: DATA UNDERLYING FIGURE 5

Year/Month	Home Purchase	Non-cash-out Refinance	Cash-out Refinance	Year/Month (cont.)	Home Purchase (cont.)	Non-cash-out Refinance (cont.)	Cash-out Refinance (cont.)
2018m1	11,452	4,525	2,818	2021m1	13,050	14,896	2,786
2018m2	11,197	3,903	2,692	2021m2	13,348	17,519	3,105
2018m3	17,027	4,437	2,994	2021m3	21,002	21,703	4,161
2018m4	18,883	3,834	2,705	2021m4	25,288	18,699	4,525
2018m5	22,388	4,043	2,701	2021m5	26,273	14,440	4,842
2018m6	25,452	3,698	2,411	2021m6	31,734	14,077	5,534
2018m7	22,544	3,544	2,470	2021m7	28,789	13,316	5,639
2018m8	22,412	3,783	2,539	2021m8	27,557	15,245	6,964
2018m9	16,419	3,212	2,342	2021m9	25,464	15,865	7,634
2018m10	18,647	3,988	2,739	2021m10	25,848	16,829	8,657
2018m11	16,870	3,448	2,421	2021m11	29,046	15,109	10,050
2018m12	16,656	3,826	2,625	2021m12	33,715	14,650	11,429
2019m1	10,456	3,387	2,034	2022m1	13,778	7,636	5,486
2019m2	10,600	4,911	2,295	2022m2	14,488	6,626	5,361
2019m3	15,561	5,768	2,873	2022m3	23,050	6,023	6,052
2019m4	18,469	6,786	3,225	2022m4	25,326	4,164	4,583
2019m5	22,265	9,475	3,643	2022m5	27,727	3,168	3,462
2019m6	22,499	7,819	3,605	2022m6	27,832	2,311	2,545
2019m7	21,341	10,309	4,356	2022m7	21,211	1,683	1,868
2019m8	20,036	11,768	4,815	2022m8	20,868	1,633	1,638
2019m9	16,215	13,090	5,174	2022m9	17,912	1,411	1,281
2019m10	17,417	16,091	6,262	2022m10	16,942	1,222	1,164
2019m11	15,474	13,853	5,558	2022m11	14,234	1,100	931
2019m12	17,744	14,451	6,398	2022m12	13,730	1,044	874
2020m1	11,448	10,168	4,533	2023m1	6,245	638	478
2020m2	11,151	9,601	4,037	2023m2	6,487	670	457
2020m3	14,652	13,111	4,521	2023m3	10,660	875	586
2020m4	12,387	16,828	5,306	2023m4	10,201	789	552
2020m5	10,819	17,532	5,651	2023m5	12,798	809	615
2020m6	15,201	15,275	4,673	2023m6	14,070	782	556
2020m7	19,232	11,878	3,394	2023m7	11,210	728	508
2020m8	19,531	11,028	2,990	2023m8	11,682	737	621
2020m9	19,748	11,848	2,891	2023m9	9,557	757	559
2020m10	21,121	13,379	2,826	2023m10	9,352	704	592
2020m11	18,277	13,747	2,717	2023m11	8,313	711	516
2020m12	21,930	18,088	3,846	2023m12	8,340	725	594

NOTE: Number of closed-end jumbo originations by loan purpose.

TABLE A7: DATA UNDERLYING FIGURE 6

Year/Month	Home Purchase	Non-cash-out Refinance	Cash-out Refinance	Year/Month (cont.)	Home Purchase (cont.)	Non-cash-out Refinance (cont.)	Cash-out Refinance (cont.)
2018m1	41,362	9,586	10,314	2021m1	50,151	42,414	7,631
2018m2	42,323	8,231	10,042	2021m2	48,144	45,665	7,521
2018m3	61,478	6,209	10,708	2021m3	64,662	56,196	9,568
2018m4	63,469	4,531	9,900	2021m4	65,597	43,597	9,451
2018m5	71,556	4,270	10,476	2021m5	65,406	35,065	8,751
2018m6	73,459	3,563	10,619	2021m6	72,853	32,803	10,992
2018m7	68,067	3,499	11,181	2021m7	69,307	28,518	11,130
2018m8	69,914	4,104	12,784	2021m8	69,585	26,648	13,325
2018m9	56,577	3,323	10,915	2021m9	66,377	24,293	12,425
2018m10	59,753	3,823	13,093	2021m10	63,210	22,213	12,860
2018m11	53,938	3,166	10,829	2021m11	60,089	17,825	13,383
2018m12	51,542	3,373	10,259	2021m12	61,476	14,049	12,636
2019m1	39,086	3,758	9,359	2022m1	42,629	12,089	12,286
2019m2	43,619	5,306	10,270	2022m2	40,535	8,696	12,814
2019m3	60,150	6,355	11,818	2022m3	52,439	6,095	15,430
2019m4	66,182	8,649	12,728	2022m4	50,171	3,420	15,622
2019m5	74,300	9,976	13,475	2022m5	52,425	1,882	14,384
2019m6	69,680	10,860	13,182	2022m6	55,723	1,190	13,531
2019m7	72,372	16,558	14,772	2022m7	51,119	944	12,808
2019m8	72,796	19,919	15,947	2022m8	55,416	1,065	15,129
2019m9	64,040	22,265	15,822	2022m9	50,682	978	13,847
2019m10	67,371	28,236	15,600	2022m10	45,286	859	11,905
2019m11	60,086	27,300	11,704	2022m11	39,655	672	8,519
2019m12	63,627	29,288	11,326	2022m12	40,499	611	7,535
2020m1	47,148	30,437	9,728	2023m1	29,048	576	6,951
2020m2	48,128	30,325	8,942	2023m2	33,328	608	7,714
2020m3	63,401	30,912	8,592	2023m3	48,926	915	10,458
2020m4	58,632	29,856	6,914	2023m4	47,642	1,035	10,313
2020m5	56,638	32,019	5,450	2023m5	55,175	1,294	11,528
2020m6	73,675	35,605	5,498	2023m6	56,877	1,240	11,590
2020m7	82,386	36,681	5,168	2023m7	49,775	1,087	11,454
2020m8	76,712	35,131	4,937	2023m8	53,342	1,302	13,159
2020m9	75,553	33,073	4,771	2023m9	48,018	1,087	10,610
2020m10	76,104	35,862	5,734	2023m10	45,927	991	10,908
2020m11	66,079	38,143	6,097	2023m11	42,918	765	8,957
2020m12	73,772	42,220	7,463	2023m12	43,580	965	8,358

NOTE: Number of close-end FHA originations by loan purpose.

TABLE A8: DATA UNDERLYING FIGURE 7

Year/Month	Home Purchase	Non-cash-out Refinance	Cash-out Refinance	Year/Month (cont.)	Home Purchase (cont.)	Non-cash-out Refinance (cont.)	Cash-out Refinance (cont.)
2018m1	21,549	8,855	11,347	2021m1	26,411	89,869	10,957
2018m2	22,306	7,392	10,471	2021m2	25,867	90,513	11,769
2018m3	30,296	5,390	11,101	2021m3	34,819	93,194	14,273
2018m4	31,025	4,488	10,501	2021m4	35,508	56,766	13,005
2018m5	36,451	3,553	10,373	2021m5	36,068	46,034	11,809
2018m6	38,967	2,170	9,825	2021m6	41,772	44,238	14,595
2018m7	36,220	1,881	10,261	2021m7	39,847	39,176	15,363
2018m8	37,592	2,194	12,139	2021m8	39,092	37,660	18,915
2018m9	29,645	1,717	10,416	2021m9	37,300	33,950	19,146
2018m10	30,853	1,767	12,263	2021m10	35,611	30,444	19,427
2018m11	28,276	1,503	10,237	2021m11	34,141	23,119	19,735
2018m12	26,993	1,630	9,976	2021m12	36,111	18,414	19,710
2019m1	20,966	2,137	9,261	2022m1	25,822	16,030	19,262
2019m2	23,198	4,421	9,978	2022m2	25,757	8,859	18,656
2019m3	29,812	6,457	11,012	2022m3	32,664	5,162	19,843
2019m4	32,921	10,229	11,107	2022m4	31,860	2,228	16,983
2019m5	39,439	13,030	11,957	2022m5	34,576	740	12,950
2019m6	39,425	14,047	11,159	2022m6	37,027	413	10,769
2019m7	40,513	23,595	13,652	2022m7	32,725	287	9,733
2019m8	39,368	30,397	15,220	2022m8	34,464	354	10,994
2019m9	33,755	36,547	15,980	2022m9	31,534	319	9,999
2019m10	34,342	42,035	14,565	2022m10	27,440	379	8,374
2019m11	30,298	40,549	13,104	2022m11	23,679	279	5,737
2019m12	33,028	43,605	14,028	2022m12	24,187	187	4,886
2020m1	24,107	42,221	12,516	2023m1	18,063	299	4,513
2020m2	25,549	43,472	11,802	2023m2	21,427	578	4,884
2020m3	33,382	52,614	12,267	2023m3	27,906	752	6,079
2020m4	33,155	61,219	11,617	2023m4	24,933	701	5,171
2020m5	33,096	62,826	9,514	2023m5	29,965	847	5,699
2020m6	41,581	68,862	9,613	2023m6	32,312	655	5,366
2020m7	45,544	74,002	8,998	2023m7	27,013	623	5,251
2020m8	40,231	79,965	9,038	2023m8	28,203	1,046	6,053
2020m9	39,043	80,325	9,224	2023m9	23,965	759	4,984
2020m10	38,740	84,139	9,805	2023m10	22,821	367	5,030
2020m11	34,008	88,120	9,736	2023m11	20,509	222	4,105
2020m12	37,749	95,013	11,163	2023m12	20,512	960	3,986

NOTE: Number of closed-end VA originations by loan purpose.

TABLE A9: DATA UNDERLYING FIGURE 8

Year/Month	Home Purchase	Non-cash-out Refinance	Cash-out Refinance	Year/Month (cont.)	Home Purchase (cont.)	Non-cash-out Refinance (cont.)	Cash-out Refinance (cont.)
2018m1	6,795	292	1	2021m1	8,928	927	10
2018m2	6,365	259	3	2021m2	8,822	1,168	20
2018m3	8,751	197	1	2021m3	9,493	1,357	22
2018m4	9,076	108	4	2021m4	9,548	926	19
2018m5	10,073	57	1	2021m5	9,085	585	6
2018m6	10,008	64	1	2021m6	9,669	516	7
2018m7	9,712	46	3	2021m7	9,128	465	9
2018m8	10,431	49	1	2021m8	8,578	499	3
2018m9	8,292	45	1	2021m9	8,410	554	11
2018m10	8,803	33	3	2021m10	7,675	482	2
2018m11	7,576	18	3	2021m11	7,481	484	10
2018m12	6,246	21	2	2021m12	7,731	344	5
2019m1	827	1	2	2022m1	5,277	281	2
2019m2	7,076	15	1	2022m2	4,889	185	3
2019m3	6,878	33	1	2022m3	5,943	140	3
2019m4	8,242	39	2	2022m4	5,292	103	1
2019m5	9,474	46	3	2022m5	4,981	71	1
2019m6	9,096	47	<1	2022m6	4,711	23	2
2019m7	9,823	110	1	2022m7	4,451	10	2
2019m8	10,252	223	7	2022m8	4,929	3	3
2019m9	9,417	319	8	2022m9	4,667	5	1
2019m10	9,508	415	14	2022m10	3,895	3	1
2019m11	8,760	453	5	2022m11	3,064	2	1
2019m12	9,094	590	13	2022m12	2,997	<1	<1
2020m1	8,021	601	6	2023m1	2,195	<1	2
2020m2	7,414	566	16	2023m2	2,610	4	<1
2020m3	9,312	683	21	2023m3	3,514	<1	1
2020m4	9,077	940	32	2023m4	3,102	5	<1
2020m5	8,931	793	41	2023m5	3,549	7	<1
2020m6	11,884	879	26	2023m6	3,465	10	2
2020m7	12,931	797	28	2023m7	2,894	4	1
2020m8	12,518	783	22	2023m8	3,214	8	3
2020m9	13,162	860	19	2023m9	2,811	21	<1
2020m10	11,045	846	24	2023m10	2,731	17	<1
2020m11	9,381	720	20	2023m11	2,243	20	<1
2020m12	10,250	841	20	2023m12	2,175	17	<1

NOTE: Number of closed-end RHS/FSA originations by loan purpose.

TABLE A10: DATA UNDERLYING FIGURES 9A AND 9B

Year/Month	Asian	Black	Hispanic White	Non-Hispanic White	Year/Month (cont.)	Asian (cont.)	Black (cont.)	Hispanic White (cont.)	Non-Hispanic White (cont.)
2018m1	12,207	14,311	18,835	122,119	2021m1	17,243	22,262	26,100	148,249
2018m2	12,001	14,380	18,643	126,216	2021m2	17,499	21,179	25,145	147,272
2018m3	16,876	19,060	26,082	181,210	2021m3	24,453	27,459	33,183	204,273
2018m4	18,067	19,817	27,519	193,293	2021m4	25,965	27,165	34,382	215,972
2018m5	21,361	22,763	30,736	226,549	2021m5	27,115	27,806	34,254	220,741
2018m6	23,030	24,238	32,093	243,088	2021m6	31,890	32,492	38,703	256,772
2018m7	21,317	23,541	30,261	223,415	2021m7	30,151	32,021	37,040	233,908
2018m8	22,309	24,390	31,318	229,534	2021m8	30,602	33,004	37,353	224,229
2018m9	16,863	20,106	25,646	177,548	2021m9	27,712	31,786	35,748	207,871
2018m10	17,762	21,068	28,080	185,561	2021m10	26,368	30,174	34,112	196,657
2018m11	16,278	19,412	25,404	167,952	2021m11	26,143	29,137	32,586	187,799
2018m12	15,745	19,505	24,580	151,414	2021m12	26,264	30,935	34,212	189,640
2019m1	11,338	14,581	18,608	113,173	2022m1	18,010	21,233	24,135	131,946
2019m2	11,732	15,629	20,202	129,901	2022m2	18,484	20,504	23,397	132,069
2019m3	15,527	20,082	26,837	170,702	2022m3	26,274	26,031	30,706	179,442
2019m4	17,905	21,637	30,793	192,346	2022m4	25,703	24,513	29,141	182,708
2019m5	21,782	24,934	34,019	232,412	2022m5	28,095	26,006	30,747	197,521
2019m6	21,179	24,343	32,255	228,829	2022m6	28,710	28,147	31,986	207,800
2019m7	21,275	25,557	33,642	232,023	2022m7	23,281	25,679	27,833	176,605
2019m8	21,154	25,471	33,024	226,830	2022m8	24,753	27,747	29,622	181,070
2019m9	17,851	22,027	29,390	191,882	2022m9	22,336	24,885	26,294	161,301
2019m10	18,588	23,027	30,542	193,153	2022m10	19,069	21,402	23,710	138,985
2019m11	16,793	20,685	26,693	168,053	2022m11	17,154	19,375	20,902	118,430
2019m12	17,908	22,351	28,694	174,609	2022m12	17,396	20,246	21,750	113,404
2020m1	13,001	16,813	21,492	128,211	2023m1	11,626	14,531	15,680	81,574
2020m2	13,541	16,966	21,988	136,389	2023m2	13,361	15,621	18,320	95,480
2020m3	16,960	21,031	27,579	182,180	2023m3	18,800	20,863	25,885	132,899
2020m4	13,947	19,922	25,017	177,129	2023m4	17,331	18,726	23,520	123,792
2020m5	12,582	20,748	24,209	175,033	2023m5	21,791	22,032	27,519	150,490
2020m6	17,524	26,278	32,647	231,671	2023m6	22,703	22,968	27,745	163,108
2020m7	22,025	29,810	37,913	261,763	2023m7	19,852	20,181	24,461	138,503
2020m8	22,530	28,866	35,702	242,699	2023m8	21,937	21,881	26,495	147,379
2020m9	23,005	29,804	36,718	237,130	2023m9	18,669	19,020	23,687	124,646
2020m10	24,596	30,537	37,845	236,329	2023m10	18,074	18,011	22,570	116,206
2020m11	22,237	27,518	34,180	202,522	2023m11	16,773	16,495	20,666	102,873
2020m12	24,209	32,017	38,249	214,342	2023m12	15,838	17,628	20,714	98,750

NOTE: Number of closed-end purchase loan originations by race and ethnicity.

TABLE A11: DATA UNDERLYING FIGURES 10A AND 10B

Year/Month	Asian	Black	Hispanic White	Non-Hispanic White	Year/Month (cont.)	Asian (cont.)	Black (cont.)	Hispanic White (cont.)	Non-Hispanic White (cont.)
2018m1	0.061	0.072	0.095	0.614	2021m1	0.065	0.083	0.098	0.556
2018m2	0.059	0.071	0.092	0.620	2021m2	0.067	0.081	0.096	0.560
2018m3	0.058	0.066	0.090	0.626	2021m3	0.068	0.076	0.092	0.566
2018m4	0.059	0.064	0.089	0.627	2021m4	0.069	0.072	0.091	0.570
2018m5	0.059	0.063	0.085	0.628	2021m5	0.070	0.072	0.088	0.569
2018m6	0.060	0.063	0.083	0.629	2021m6	0.071	0.072	0.086	0.569
2018m7	0.060	0.066	0.085	0.624	2021m7	0.072	0.077	0.089	0.559
2018m8	0.061	0.066	0.085	0.624	2021m8	0.075	0.081	0.092	0.549
2018m9	0.059	0.070	0.089	0.619	2021m9	0.073	0.083	0.094	0.546
2018m10	0.059	0.070	0.093	0.614	2021m10	0.073	0.084	0.095	0.545
2018m11	0.059	0.070	0.092	0.610	2021m11	0.075	0.084	0.094	0.542
2018m12	0.062	0.076	0.096	0.593	2021m12	0.074	0.087	0.097	0.536
2019m1	0.060	0.077	0.098	0.597	2022m1	0.073	0.086	0.098	0.537
2019m2	0.055	0.073	0.094	0.607	2022m2	0.075	0.084	0.095	0.539
2019m3	0.055	0.071	0.095	0.605	2022m3	0.080	0.079	0.093	0.543
2019m4	0.056	0.068	0.097	0.604	2022m4	0.078	0.074	0.088	0.553
2019m5	0.057	0.066	0.089	0.611	2022m5	0.079	0.073	0.086	0.554
2019m6	0.057	0.065	0.086	0.613	2022m6	0.077	0.075	0.085	0.555
2019m7	0.056	0.067	0.088	0.609	2022m7	0.073	0.080	0.087	0.552
2019m8	0.057	0.068	0.088	0.608	2022m8	0.074	0.083	0.089	0.544
2019m9	0.056	0.069	0.092	0.603	2022m9	0.075	0.084	0.089	0.543
2019m10	0.057	0.071	0.094	0.597	2022m10	0.074	0.083	0.092	0.540
2019m11	0.059	0.073	0.094	0.592	2022m11	0.077	0.087	0.093	0.530
2019m12	0.060	0.075	0.096	0.585	2022m12	0.079	0.092	0.099	0.515
2020m1	0.059	0.077	0.098	0.585	2023m1	0.074	0.092	0.100	0.519
2020m2	0.059	0.074	0.095	0.592	2023m2	0.073	0.086	0.101	0.524
2020m3	0.056	0.069	0.091	0.602	2023m3	0.074	0.083	0.103	0.527
2020m4	0.048	0.069	0.087	0.615	2023m4	0.074	0.080	0.101	0.531
2020m5	0.044	0.073	0.085	0.617	2023m5	0.077	0.078	0.097	0.533
2020m6	0.046	0.070	0.086	0.613	2023m6	0.075	0.076	0.092	0.542
2020m7	0.051	0.069	0.087	0.604	2023m7	0.077	0.078	0.095	0.536
2020m8	0.055	0.071	0.087	0.594	2023m8	0.079	0.079	0.096	0.533
2020m9	0.057	0.073	0.091	0.585	2023m9	0.079	0.080	0.100	0.527
2020m10	0.060	0.075	0.093	0.578	2023m10	0.081	0.081	0.101	0.521
2020m11	0.062	0.077	0.096	0.567	2023m11	0.084	0.082	0.103	0.514
2020m12	0.063	0.083	0.099	0.556	2023m12	0.081	0.090	0.106	0.507

NOTE: Share of closed-end home purchase loan originations by race and ethnicity.

TABLE A12: DATA UNDERLYING FIGURES 11A AND 11B

Year/Month	Asian	Black	Hispanic White	Non-Hispanic White	Year/Month (cont.)	Asian (cont.)	Black (cont.)	Hispanic White (cont.)	Non-Hispanic White (cont.)
2018m1	6,608	10,199	11,066	104,704	2021m1	56,464	34,782	41,667	463,299
2018m2	5,898	9,355	10,201	95,564	2021m2	58,129	36,756	44,053	490,735
2018m3	5,909	9,235	10,509	100,535	2021m3	59,697	44,007	52,492	562,792
2018m4	5,353	8,525	9,980	90,277	2021m4	40,367	36,468	42,580	407,467
2018m5	5,170	8,426	9,741	86,112	2021m5	32,420	32,613	37,142	327,837
2018m6	4,565	7,503	8,682	77,652	2021m6	33,514	34,604	39,045	338,584
2018m7	4,489	7,639	8,445	77,554	2021m7	28,629	31,666	34,482	301,967
2018m8	4,841	8,758	9,343	86,786	2021m8	38,344	35,166	38,254	347,296
2018m9	4,041	7,216	7,953	73,467	2021m9	35,566	33,779	37,054	339,979
2018m10	4,809	8,460	9,091	83,357	2021m10	30,252	33,993	35,074	320,466
2018m11	3,813	6,913	7,232	69,523	2021m11	24,641	31,127	32,403	284,723
2018m12	3,810	7,039	7,319	66,826	2021m12	20,638	28,473	29,357	249,606
2019m1	4,304	6,938	6,760	63,838	2022m1	17,721	25,618	24,751	210,966
2019m2	5,944	7,597	7,800	73,041	2022m2	13,471	22,762	22,492	182,503
2019m3	7,210	9,047	9,451	86,389	2022m3	11,583	23,000	23,037	178,956
2019m4	9,877	10,294	11,725	106,042	2022m4	7,136	17,315	16,593	129,493
2019m5	11,832	11,408	12,996	119,039	2022m5	4,552	12,641	11,044	85,828
2019m6	10,399	11,004	12,780	115,306	2022m6	3,338	10,389	7,928	65,040
2019m7	15,290	14,065	16,796	166,000	2022m7	2,370	8,819	6,539	52,234
2019m8	17,355	16,325	19,341	193,699	2022m8	2,528	9,572	6,571	52,909
2019m9	21,588	17,845	22,289	238,395	2022m9	1,969	8,055	5,339	44,339
2019m10	23,969	20,132	25,156	263,017	2022m10	1,520	6,627	4,225	37,156
2019m11	19,232	18,338	21,677	218,075	2022m11	1,157	4,787	2,987	27,330
2019m12	19,490	19,264	22,649	216,809	2022m12	1,044	4,153	2,796	23,822
2020m1	18,077	19,101	20,085	193,574	2023m1	1,032	4,016	2,344	21,512
2020m2	22,270	19,749	21,814	217,160	2023m2	1,155	4,215	2,692	24,393
2020m3	30,153	22,726	27,518	310,429	2023m3	1,487	5,368	3,350	31,333
2020m4	35,104	24,148	31,681	430,590	2023m4	1,274	5,326	3,025	28,168
2020m5	36,775	26,172	33,459	434,023	2023m5	1,527	5,900	3,524	31,342
2020m6	47,010	29,178	38,214	454,022	2023m6	1,351	5,156	3,496	29,594
2020m7	50,908	29,109	37,946	421,365	2023m7	1,161	4,821	3,048	27,957
2020m8	54,218	29,841	38,202	431,522	2023m8	1,302	5,420	3,501	31,921
2020m9	59,032	30,493	39,652	461,885	2023m9	1,087	4,450	2,938	26,632
2020m10	62,947	33,619	43,981	499,219	2023m10	1,123	4,390	3,080	25,753
2020m11	53,940	32,832	41,755	454,822	2023m11	884	3,444	2,534	21,315
2020m12	55,588	35,692	43,760	478,021	2023m12	956	3,703	2,496	21,154

NOTE: Number of closed-end refinance loan originations by race and ethnicity.

TABLE A13: DATA UNDERLYING FIGURES 12A AND 12B

Year/Month	Asian	Black	Hispanic White	Non-Hispanic White	Year/Month (cont.)	Asian (cont.)	Black (cont.)	Hispanic White (cont.)	Non-Hispanic White (cont.)
2018m1	0.039	0.061	0.066	0.623	2021m1	0.072	0.044	0.053	0.587
2018m2	0.038	0.061	0.066	0.623	2021m2	0.070	0.044	0.053	0.592
2018m3	0.037	0.058	0.066	0.633	2021m3	0.063	0.047	0.056	0.596
2018m4	0.038	0.060	0.070	0.633	2021m4	0.058	0.053	0.061	0.587
2018m5	0.038	0.061	0.071	0.627	2021m5	0.057	0.057	0.065	0.577
2018m6	0.037	0.061	0.070	0.630	2021m6	0.057	0.059	0.066	0.574
2018m7	0.037	0.062	0.069	0.631	2021m7	0.055	0.060	0.066	0.576
2018m8	0.035	0.064	0.068	0.634	2021m8	0.063	0.058	0.063	0.574
2018m9	0.035	0.063	0.069	0.637	2021m9	0.061	0.057	0.063	0.579
2018m10	0.037	0.064	0.069	0.635	2021m10	0.055	0.062	0.063	0.580
2018m11	0.035	0.064	0.067	0.640	2021m11	0.050	0.063	0.066	0.580
2018m12	0.036	0.066	0.069	0.630	2021m12	0.048	0.066	0.068	0.580
2019m1	0.042	0.068	0.066	0.622	2022m1	0.048	0.069	0.067	0.572
2019m2	0.050	0.063	0.065	0.610	2022m2	0.042	0.071	0.070	0.572
2019m3	0.051	0.064	0.066	0.607	2022m3	0.037	0.074	0.074	0.575
2019m4	0.056	0.059	0.067	0.605	2022m4	0.032	0.078	0.074	0.580
2019m5	0.060	0.058	0.066	0.604	2022m5	0.031	0.085	0.074	0.578
2019m6	0.054	0.057	0.067	0.602	2022m6	0.029	0.092	0.070	0.573
2019m7	0.056	0.052	0.062	0.613	2022m7	0.026	0.096	0.071	0.570
2019m8	0.055	0.052	0.061	0.614	2022m8	0.027	0.102	0.070	0.562
2019m9	0.056	0.047	0.058	0.622	2022m9	0.025	0.103	0.068	0.565
2019m10	0.056	0.047	0.059	0.614	2022m10	0.023	0.102	0.065	0.571
2019m11	0.053	0.051	0.060	0.602	2022m11	0.024	0.101	0.063	0.578
2019m12	0.054	0.053	0.062	0.597	2022m12	0.025	0.099	0.067	0.570
2020m1	0.055	0.058	0.061	0.592	2023m1	0.027	0.106	0.062	0.568
2020m2	0.061	0.054	0.060	0.599	2023m2	0.027	0.099	0.063	0.574
2020m3	0.061	0.046	0.055	0.625	2023m3	0.028	0.100	0.062	0.582
2020m4	0.053	0.037	0.048	0.655	2023m4	0.026	0.110	0.062	0.580
2020m5	0.055	0.039	0.050	0.644	2023m5	0.028	0.108	0.065	0.575
2020m6	0.065	0.040	0.053	0.625	2023m6	0.027	0.101	0.069	0.581
2020m7	0.073	0.042	0.055	0.607	2023m7	0.024	0.101	0.064	0.585
2020m8	0.075	0.042	0.053	0.600	2023m8	0.024	0.100	0.064	0.586
2020m9	0.077	0.040	0.051	0.600	2023m9	0.024	0.099	0.065	0.590
2020m10	0.075	0.040	0.052	0.593	2023m10	0.025	0.099	0.069	0.581
2020m11	0.070	0.043	0.054	0.590	2023m11	0.024	0.095	0.070	0.586
2020m12	0.069	0.044	0.054	0.590	2023m12	0.026	0.101	0.068	0.578

NOTE: Share of close-end refinance loan originations by race and ethnicity.

TABLE A14: DATA UNDERLYING FIGURE 13

Year/Month	Monthly Payment (\$)	Interest Rate (%)	Year/Month (cont.)	Monthly Payment (\$) (cont.)	Interest Rate (%) (cont.)
2018m1	1,233	4.080	2021m1	1,265	2.746
2018m2	1,270	4.460	2021m2	1,294	2.768
2018m3	1,308	4.462	2021m3	1,341	2.876
2018m4	1,354	4.557	2021m4	1,391	3.118
2018m5	1,333	4.613	2021m5	1,391	3.105
2018m6	1,350	4.703	2021m6	1,392	3.052
2018m7	1,341	4.709	2021m7	1,390	3.048
2018m8	1,334	4.692	2021m8	1,381	2.982
2018m9	1,317	4.700	2021m9	1,374	2.974
2018m10	1,330	4.795	2021m10	1,384	3.025
2018m11	1,361	4.944	2021m11	1,403	3.138
2018m12	1,367	4.961	2021m12	1,400	3.182
2019m1	1,355	4.771	2022m1	1,486	3.246
2019m2	1,356	4.844	2022m2	1,575	3.545
2019m3	1,364	4.698	2022m3	1,665	3.871
2019m4	1,341	4.362	2022m4	1,752	4.297
2019m5	1,341	4.293	2022m5	1,863	4.882
2019m6	1,360	4.184	2022m6	1,905	5.169
2019m7	1,509	4.912	2022m7	1,918	5.445
2019m8	1,287	3.899	2022m8	1,907	5.388
2019m9	1,261	3.771	2022m9	1,908	5.402
2019m10	1,275	3.777	2022m10	1,985	5.961
2019m11	1,287	3.820	2022m11	2,063	6.486
2019m12	1,303	3.836	2022m12	2,045	6.388
2020m1	1,414	3.826	2023m1	2,071	6.238
2020m2	1,307	3.720	2023m2	2,080	6.067
2020m3	1,292	3.523	2023m3	2,145	6.294
2020m4	1,276	3.413	2023m4	2,161	6.342
2020m5	1,259	3.338	2023m5	2,185	6.300
2020m6	1,274	3.239	2023m6	2,222	6.485
2020m7	1,279	3.128	2023m7	2,249	6.655
2020m8	1,273	2.987	2023m8	2,270	6.791
2020m9	1,266	2.892	2023m9	2,284	7.003
2020m10	1,266	2.882	2023m10	2,322	7.200
2020m11	1,267	2.841	2023m11	2,354	7.444
2020m12	1,251	2.790	2023m12	2,295	7.169

NOTE: Average prime interest rate and monthly mortgage payment for 30-year fixed-rate conventional conforming mortgages.

TABLE A15: DATA UNDERLYING FIGURE 14

Year/Month	Asian	Black	Hispanic White	Non-Hispanic White	Year/Month (cont.)	Asian (cont.)	Black (cont.)	Hispanic White (cont.)	Non-Hispanic White (cont.)
2018m1	38.0	38.5	39.6	35.9	2021m1	35.8	36.9	38.0	34.4
2018m2	38.4	38.7	39.5	36.0	2021m2	35.7	36.6	37.8	34.2
2018m3	38.8	38.7	39.7	36.0	2021m3	35.8	36.8	37.7	34.2
2018m4	38.6	38.4	39.7	36.0	2021m4	36.1	36.9	37.9	34.4
2018m5	38.6	38.6	39.4	35.9	2021m5	35.9	36.8	37.9	34.4
2018m6	38.6	38.4	39.5	35.9	2021m6	36.0	37.2	37.9	34.3
2018m7	38.5	38.6	39.6	35.9	2021m7	36.1	37.2	38.2	34.6
2018m8	38.6	38.5	39.6	36.1	2021m8	36.2	37.3	38.3	34.7
2018m9	38.5	38.9	39.7	36.2	2021m9	36.5	37.5	38.3	34.8
2018m10	39.0	38.9	39.8	36.3	2021m10	36.6	37.5	38.5	35.0
2018m11	39.2	38.8	39.9	36.5	2021m11	36.8	37.7	38.6	35.2
2018m12	39.2	39.0	39.9	36.6	2021m12	36.7	38.0	38.7	35.2
2019m1	38.7	38.5	39.5	36.3	2022m1	36.8	38.0	38.8	35.3
2019m2	38.3	38.6	39.2	36.0	2022m2	37.1	38.0	38.9	35.3
2019m3	37.9	38.4	39.3	35.8	2022m3	37.3	38.1	39.0	35.4
2019m4	37.8	38.3	39.0	35.6	2022m4	37.9	38.3	39.4	35.7
2019m5	37.8	38.1	39.1	35.4	2022m5	38.2	38.9	39.8	36.1
2019m6	37.4	37.9	38.7	35.2	2022m6	38.2	39.1	39.9	36.3
2019m7	37.3	37.9	38.7	35.1	2022m7	38.8	39.4	40.1	36.7
2019m8	37.4	37.9	38.7	35.1	2022m8	38.4	39.4	40.0	36.5
2019m9	37.1	37.6	38.6	35.0	2022m9	38.7	39.3	40.1	36.7
2019m10	37.2	37.7	38.5	35.1	2022m10	39.3	39.8	40.5	37.2
2019m11	37.3	37.8	38.6	35.2	2022m11	39.4	40.1	40.7	37.5
2019m12	37.4	37.8	38.6	35.2	2022m12	39.1	40.1	40.5	37.3
2020m1	37.3	37.8	38.7	35.3	2023m1	39.0	40.1	40.4	37.2
2020m2	37.0	37.6	38.2	35.0	2023m2	39.0	39.6	40.2	36.9
2020m3	36.8	37.3	38.1	34.7	2023m3	39.1	40.0	40.4	37.1
2020m4	36.3	37.2	38.1	34.6	2023m4	38.9	39.6	40.1	36.7
2020m5	36.3	37.1	38.0	34.6	2023m5	38.8	39.7	40.3	36.7
2020m6	36.0	37.2	37.8	34.5	2023m6	39.0	40.0	40.3	36.8
2020m7	35.8	37.1	37.9	34.4	2023m7	39.2	40.2	40.5	37.1
2020m8	35.8	37.0	37.7	34.4	2023m8	39.3	40.4	40.7	37.3
2020m9	35.9	36.9	37.7	34.4	2023m9	39.7	40.6	40.9	37.5
2020m10	36.0	37.1	37.9	34.4	2023m10	39.8	40.6	40.8	37.7
2020m11	35.9	37.2	37.9	34.4	2023m11	39.9	40.7	40.9	37.8
2020m12	36.0	37.1	37.9	34.4	2023m12	39.6	40.3	40.7	37.4

NOTE: Average debt-to-income ratio (DTI) for 30-year fixed-rate conventional conforming mortgages, by race and ethnicity.

TABLE A16: DATA UNDERLYING FIGURE 15

Year/Month	Asian	Black	Hispanic White	Non-Hispanic White	Year/Month (cont.)	Asian (cont.)	Black (cont.)	Hispanic White (cont.)	Non-Hispanic White (cont.)
2018m1	35.5	32.4	33.5	28.2	2021m1	40.9	37.9	38.9	31.5
2018m2	39.7	34.4	32.8	28.3	2021m2	38.3	36.8	36.5	30.1
2018m3	38.7	35.9	34.3	29.6	2021m3	37.5	38.3	37.7	30.8
2018m4	37.8	35.7	36.8	29.8	2021m4	38.7	39.0	38.6	30.9
2018m5	40.7	36.4	37.3	30.4	2021m5	36.9	38.1	36.9	31.9
2018m6	40.2	34.5	36.4	30.7	2021m6	37.7	39.3	36.6	30.5
2018m7	38.2	36.2	37.0	30.8	2021m7	38.0	37.6	37.2	30.1
2018m8	39.2	36.1	36.0	31.2	2021m8	39.6	37.7	38.3	31.0
2018m9	40.1	35.6	35.4	30.8	2021m9	38.3	38.3	39.4	31.1
2018m10	43.4	35.7	36.6	31.7	2021m10	38.0	39.5	38.1	30.3
2018m11	42.5	37.9	37.3	31.9	2021m11	40.4	40.1	39.6	31.8
2018m12	42.8	36.4	36.7	31.5	2021m12	42.0	38.8	38.9	32.5
2019m1	39.7	35.8	33.8	29.6	2022m1	39.7	37.4	37.6	31.3
2019m2	39.3	35.4	36.2	29.8	2022m2	38.0	40.4	37.1	30.5
2019m3	41.3	36.2	35.4	31.1	2022m3	37.9	39.2	36.9	32.3
2019m4	40.7	36.5	37.7	30.3	2022m4	42.1	42.9	42.1	33.3
2019m5	42.7	36.8	38.1	30.5	2022m5	42.6	43.0	42.0	35.1
2019m6	41.9	36.7	36.8	31.2	2022m6	43.6	43.7	41.7	35.9
2019m7	41.6	35.8	36.3	30.7	2022m7	44.6	44.9	41.4	36.1
2019m8	40.1	35.9	36.0	30.4	2022m8	43.9	42.8	42.7	35.7
2019m9	40.3	38.0	36.7	30.8	2022m9	46.5	45.8	45.0	37.3
2019m10	42.3	36.5	38.0	31.0	2022m10	51.5	46.3	46.2	39.1
2019m11	43.5	38.5	40.2	31.9	2022m11	53.6	45.3	46.1	39.8
2019m12	42.7	36.7	36.4	32.0	2022m12	50.7	45.8	44.2	38.9
2020m1	42.4	36.2	36.4	30.2	2023m1	47.4	44.5	45.6	37.4
2020m2	39.9	37.4	38.6	30.8	2023m2	49.0	45.9	44.8	38.0
2020m3	38.8	38.1	37.7	30.6	2023m3	50.3	46.2	44.7	38.5
2020m4	38.4	34.4	34.6	29.9	2023m4	47.4	44.8	43.1	37.2
2020m5	43.3	37.3	39.9	31.5	2023m5	47.9	46.3	44.0	37.2
2020m6	43.4	39.6	40.0	32.4	2023m6	45.1	47.3	43.7	37.6
2020m7	42.7	39.3	41.1	32.8	2023m7	49.0	47.9	45.2	38.0
2020m8	43.8	38.3	38.3	31.6	2023m8	47.8	47.9	46.2	37.8
2020m9	45.4	40.1	39.6	31.8	2023m9	47.8	47.4	44.2	37.8
2020m10	43.0	40.8	40.3	32.8	2023m10	48.4	47.4	45.8	39.0
2020m11	42.6	39.8	42.3	32.6	2023m11	47.4	48.6	43.3	38.5
2020m12	41.3	40.9	39.2	33.1	2023m12	45.9	46.4	44.6	38.7

NOTE: Percentage of denials with DTI reported as a reason.

TABLE A17: DATA UNDERLYING FIGURE 16A

Year/Month	Median Income (\$)	Median Loan Amount (\$)	Median Property Value (\$)	Year/Month (cont.)	Median Income (\$) (cont.)	Median Loan Amount (\$) (cont.)	Median Property Value (\$) (cont.)
2018m1	77,000	220,000	252,000	2021m1	83,000	265,500	300,671
2018m2	79,000	223,920	255,000	2021m2	84,000	271,095	310,000
2018m3	80,000	224,100	256,900	2021m3	87,000	280,000	320,000
2018m4	80,000	224,000	256,350	2021m4	89,000	284,900	328,000
2018m5	81,000	227,000	260,000	2021m5	89,000	287,200	330,000
2018m6	83,000	230,167	265,000	2021m6	90,000	293,000	340,000
2018m7	83,000	228,000	262,547	2021m7	89,000	292,500	340,000
2018m8	81,000	225,810	260,000	2021m8	89,000	294,467	340,000
2018m9	80,000	223,250	257,000	2021m9	87,000	293,000	340,000
2018m10	80,000	222,400	257,000	2021m10	87,000	294,566	341,990
2018m11	81,000	224,800	260,000	2021m11	88,000	299,475	349,000
2018m12	81,000	227,500	262,000	2021m12	89,000	300,000	350,000
2019m1	82,000	227,164	260,500	2022m1	89,000	300,000	349,900
2019m2	81,000	225,625	257,000	2022m2	92,000	309,195	360,000
2019m3	82,000	230,644	262,500	2022m3	97,000	319,113	373,114
2019m4	82,000	232,509	265,000	2022m4	99,000	321,513	378,990
2019m5	84,000	237,500	270,579	2022m5	103,000	324,022	385,000
2019m6	85,000	241,530	276,490	2022m6	104,000	324,000	385,000
2019m7	84,000	239,580	275,000	2022m7	102,000	314,930	375,000
2019m8	83,000	238,153	273,000	2022m8	102,000	314,000	375,000
2019m9	81,000	236,942	270,000	2022m9	101,000	313,222	370,000
2019m10	81,000	238,400	272,640	2022m10	103,000	309,294	370,000
2019m11	82,000	239,920	275,000	2022m11	105,000	305,913	365,000
2019m12	83,000	243,500	278,000	2022m12	105,000	307,688	365,000
2020m1	82,000	240,384	274,900	2023m1	104,000	304,385	359,900
2020m2	83,000	244,990	278,000	2023m2	105,000	311,000	364,990
2020m3	84,000	247,926	280,000	2023m3	107,000	314,500	369,000
2020m4	83,000	248,227	280,000	2023m4	108,000	316,167	371,137
2020m5	82,000	248,000	278,213	2023m5	110,000	320,800	379,900
2020m6	84,000	253,294	285,000	2023m6	111,000	322,471	380,890
2020m7	85,000	258,400	293,500	2023m7	110,000	319,350	380,000
2020m8	85,000	261,000	299,000	2023m8	110,000	318,000	379,775
2020m9	84,000	261,669	300,000	2023m9	109,000	313,117	373,000

Year/Month	Median Income (\$)	Median Loan Amount (\$)	Median Property Value (\$)	Year/Month (cont.)	Median Income (\$) (cont.)	Median Loan Amount (\$) (cont.)	Median Property Value (\$) (cont.)
2020m10	83,000	264,000	301,000	2023m10	110,000	311,400	372,900
2020m11	83,000	266,000	305,000	2023m11	111,000	310,246	373,000
2020m12	83,000	266,893	305,000	2023m12	110,000	311,258	370,000

NOTE: Median loan amount, median property value and median reported borrower income of home purchase loans.

TABLE A18: DATA UNDERLYING FIGURE 16B

Year/Month	Income to Loan Amount Ratio	Income to Property Value Ratio	Year/Month (cont.)	Income to Loan Amount Ratio (cont.)	Income to Property Value Ratio (cont.)
2018m1	35.1	30.6	2021m1	31.1	27.2
2018m2	35.3	30.8	2021m2	30.9	27.1
2018m3	35.6	31.1	2021m3	31.0	27.1
2018m4	35.8	31.2	2021m4	31.0	27.0
2018m5	35.8	31.3	2021m5	31.0	26.9
2018m6	36.0	31.3	2021m6	30.9	26.7
2018m7	36.0	31.3	2021m7	30.5	26.4
2018m8	36.0	31.2	2021m8	30.2	26.1
2018m9	35.8	31.1	2021m9	29.8	25.9
2018m10	35.8	31.0	2021m10	29.7	25.7
2018m11	35.9	31.1	2021m11	29.6	25.6
2018m12	35.8	31.1	2021m12	29.6	25.6
2019m1	35.9	31.2	2022m1	29.7	25.7
2019m2	35.8	31.4	2022m2	29.9	25.9
2019m3	35.6	31.3	2022m3	30.2	26.0
2019m4	35.4	31.1	2022m4	30.7	26.3
2019m5	35.4	31.0	2022m5	31.5	26.8
2019m6	35.3	30.8	2022m6	32.1	27.2
2019m7	35.0	30.6	2022m7	32.4	27.5
2019m8	34.8	30.3	2022m8	32.5	27.6
2019m9	34.4	30.1	2022m9	32.4	27.6
2019m10	34.3	30.0	2022m10	33.1	28.1
2019m11	34.2	29.9	2022m11	34.0	28.8
2019m12	34.1	29.9	2022m12	34.0	29.0
2020m1	34.1	30.0	2023m1	34.0	29.1
2020m2	34.1	30.0	2023m2	33.7	28.9
2020m3	33.9	29.9	2023m3	33.9	29.0
2020m4	33.7	29.8	2023m4	34.1	29.2
2020m5	33.3	29.6	2023m5	34.1	29.1
2020m6	33.0	29.2	2023m6	34.4	29.2
2020m7	32.7	28.8	2023m7	34.4	29.1
2020m8	32.4	28.4	2023m8	34.6	29.1

Year/Month	Income to Loan Amount Ratio	Income to Property Value Ratio	Year/Month (cont.)	Income to Loan Amount Ratio (cont.)	Income to Property Value Ratio (cont.)
2020m9	31.9	27.9	2023m9	34.8	29.4
2020m10	31.6	27.6	2023m10	35.0	29.5
2020m11	31.4	27.4	2023m11	35.4	29.8
2020m12	31.1	27.2	2023m12	35.3	29.9

NOTE: Median ratios of reported borrower income to loan amount and to property value of home purchase loans.