

November 2023 Market Snapshot





Contents

Macro-Economic Indicators

Rate History

Prepayment Speed Trends

Delinquency Trends

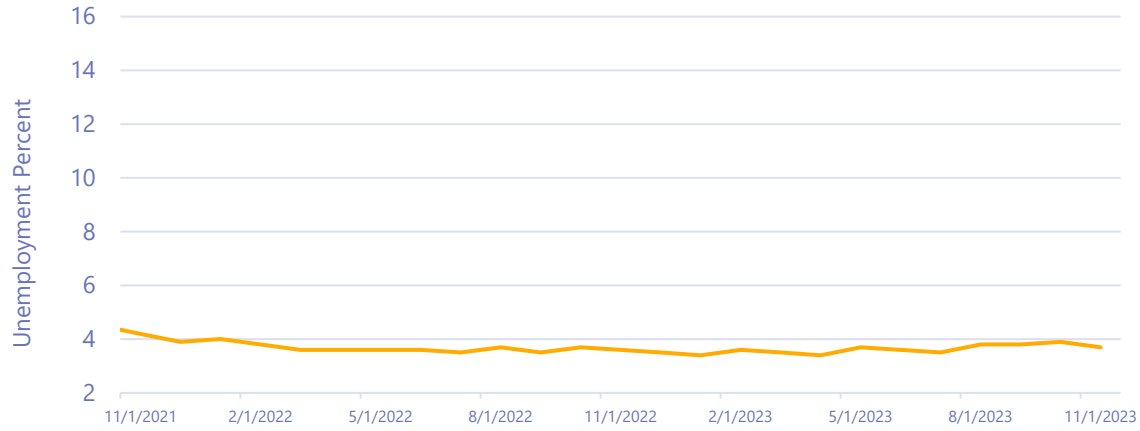
Summary

Macro- Economic Indicators

- Nonfarm payroll employment increased by 199,000 as the unemployment rate edged down to 3.70%.
- The Federal Reserve held the federal funds rate steady at a range of 5.25% to 5.50% in November.
- The MBA Mortgage Refinance Application Index's weekly readings decreased in November with a reading of 328, which is down from 342 recorded in the last week of October.
- Preliminary US housing starts are estimated to be higher month-over-month with 1,560,000 housing starts estimated in November.
- The total number of loans in forbearance, tracked by the MBA's Monthly Loan Monitoring Survey, decreased by 3 bps month-over-month to 0.26%.

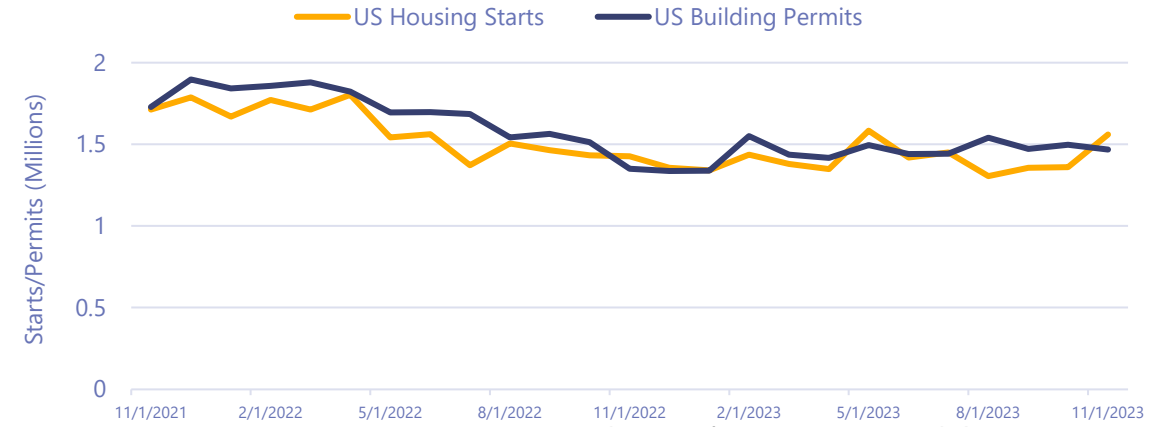
Macro-Economic Indicators

US Unemployment Rate



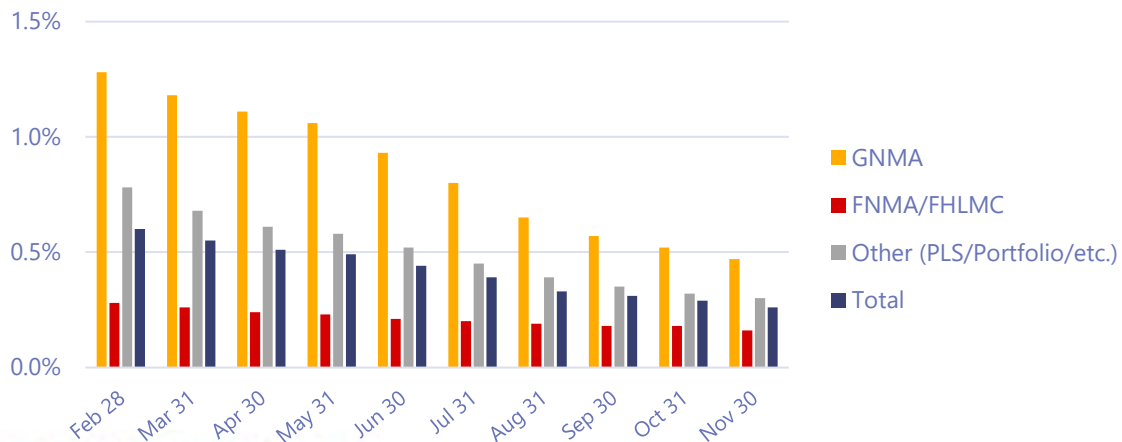
Sources: Thomson Reuters, Bureau of Labor Statistics, US Department of Labor

US Housing Starts/US Building Permits



Source: Thomson Reuters, US Census Bureau

Loans in Forbearance

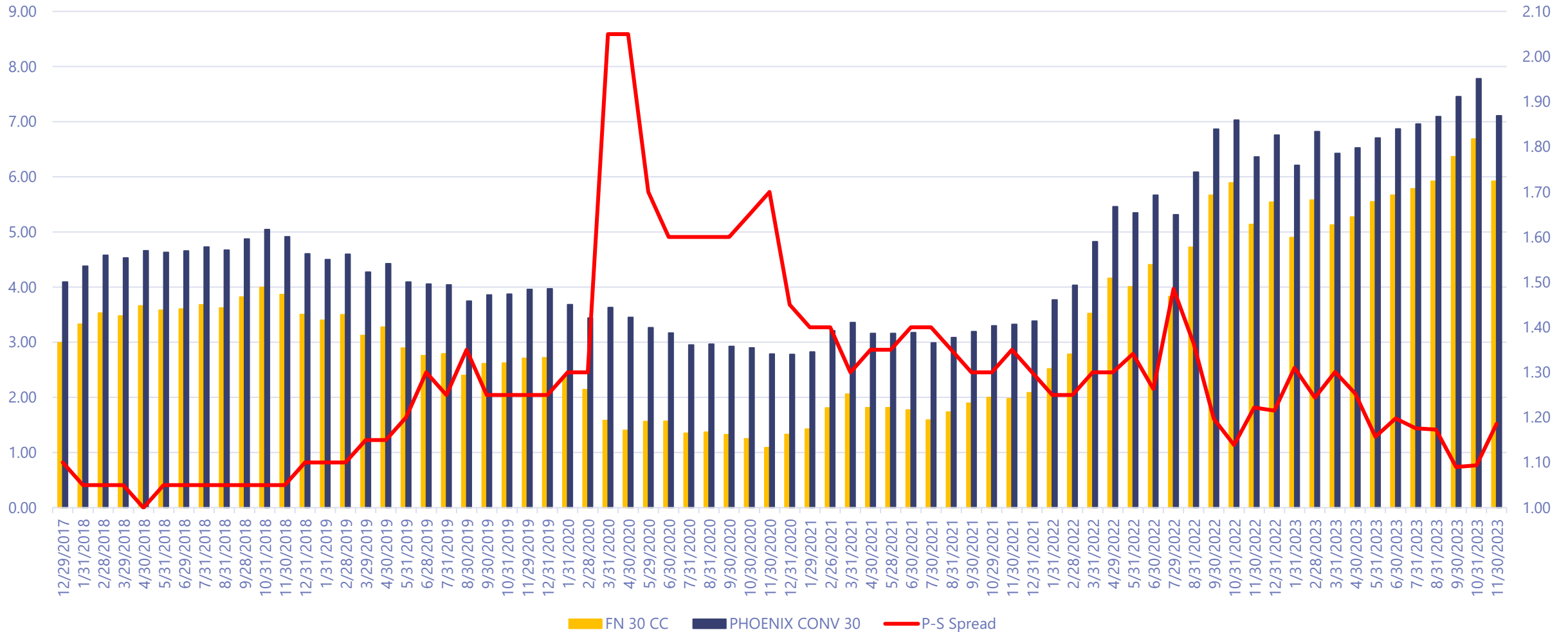


MBA Mortgage Refinance Application Index



Source: Thomson Reuters, Mortgage Bankers Association (MBA) of America

Primary Secondary Spread Tracking



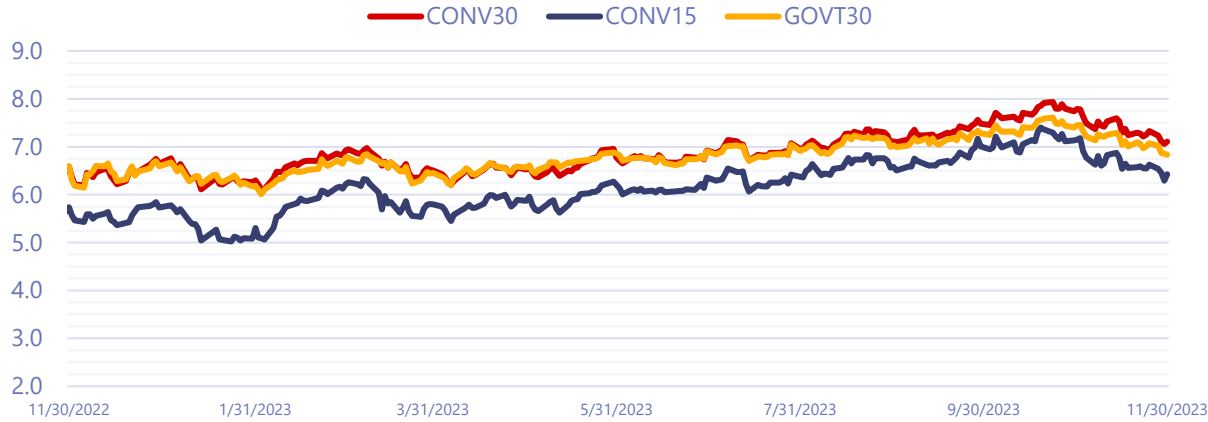
Rate History

Summary

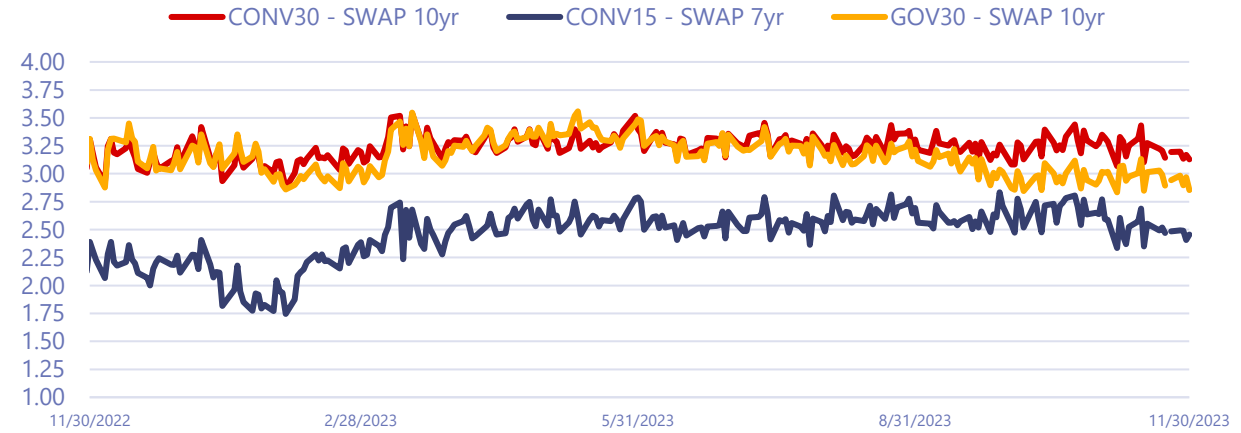
- PHOENIX primary mortgage rates decreased from October to November. The fixed 30-year CONV rate decreased by 67.3 bps, the GOVT product also decreased by 61.9 bps, and the 15-year rates declined by 75.5 bps.
- SWAP rates decreased in November with 5-year SWAP decreasing 51.8 bps from October month-end.
- Treasuries continued a downward trend this month.
- Volatilities were up month-over-month.

Rate History

PHOENIX Mortgage Par Rates (%)



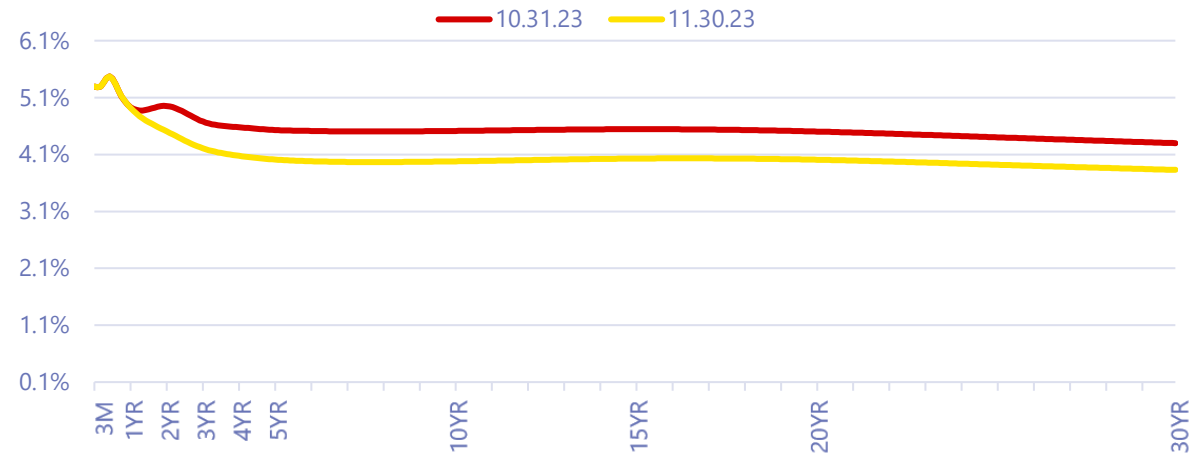
Mortgage Par Spread over SOFR Rates (%)



2yr and 10yr SOFR Spread



Yield Curve Comparison



Rate History (cont.)

Primary Rates as of 11/30/2023

Rate	11/30/2022	8/31/2023	10/31/2023	11/30/2023
CONV30	6.586	7.115	7.789	7.109
CONV15	5.739	6.577	7.144	6.425
GOV30	6.590	7.024	7.450	6.833
ARM 5/1	5.250	6.000	6.500	6.500

Secondary Rates as of 11/30/2023

Rate	11/30/2022	9/29/2023	10/31/2023	11/30/2023
FNMA 30	5.141	6.367	6.688	5.923
FNMA 15	4.644	6.304	5.868	5.532
GNMA II 30	5.339	6.304	6.582	5.758
GNMA II 15	4.614	5.377	5.497	5.532
ARM 5/1	5.490	6.640	7.120	6.810

SOFR Rates as of 11/30/2023

Rate	8/31/2023	9/29/2023	10/31/2023	11/30/2023
3 MO ED	5.295	5.295	5.295	5.295
6 MO ED	5.472	5.472	5.472	5.472
12 MO ED	4.976	4.976	4.976	4.976
2 YR SOFR	4.755	4.970	4.954	4.533
3 YR SOFR	4.367	4.637	4.699	4.228
5 YR SOFR	4.018	4.373	4.532	4.014
10 YR SOFR	3.808	4.267	4.513	3.979
15 YR SOFR	3.796	4.273	4.544	4.028
20 YR SOFR	3.746	4.226	4.504	4.009
30 YR SOFR	3.530	4.014	4.299	3.829

Source: Thomson Reuters and PHOENIX

Prepayment Speed Trends

Summary

- Quarter-over-quarter, national CPR speeds decreased to 4.14% in November from August's 6.16%.
- Average prepayment speeds for fixed-rate GNMA and GSE loans were 4.14% in November, an 84-bps decrease from October's rate of 4.98%.
- Over the month, the CONV 30-year and 15-year CPR decreased by 0.73% and 0.76%, respectively. FHA and VA speeds decreased by 0.88% and 1.55%.
- Prepayment speeds have been variable since the beginning of the year.

CPR Summary

SUMMARY TABLES - November 2023

Loan Characteristics

Investor	Avg Orig Bal	WAC	WAvg Orig FICO	WAvg Orig LTV	WAvg Age	CPR	1mo CPR Change%
CONV Fixed 30	\$265,404	3.90	754	74	44	3.97%	-15.48%
CONV Fixed 15	\$207,962	2.99	762	61	45	4.64%	-14.06%
GNMA Fixed 30	\$224,570	4.04	698	93	45	4.28%	-21.44%
GNMA Fixed 15	\$144,600	3.36	718	77	56	6.99%	-20.70%

Prepayments

Vintage	Avg Orig Bal	WAC	WAvg Orig FICO	WAvg Orig LTV	WAvg Age	CPR	1mo CPR Change%
2006	\$137,054	5.42	681	78	170	5.43%	-19.38%
2007	\$145,358	5.32	677	80	161	5.20%	-14.77%
2008	\$145,532	5.17	679	83	155	5.18%	-15.76%
2009	\$158,179	4.85	721	80	160	5.65%	-16.50%
2010	\$164,365	4.64	732	80	151	5.95%	-13.79%
2011	\$163,009	4.43	736	79	142	5.81%	-14.94%
2012	\$189,044	3.77	747	80	132	5.23%	-13.13%
2013	\$181,375	3.80	742	79	123	5.25%	-13.97%
2014	\$163,209	4.25	729	81	107	5.87%	-14.56%
2015	\$185,829	3.94	734	79	97	5.50%	-13.45%
2016	\$203,663	3.69	737	78	84	5.13%	-14.14%
2017	\$191,743	4.08	727	80	72	5.63%	-16.33%
2018	\$184,766	4.60	719	81	60	6.11%	-17.70%
2019	\$219,019	3.98	732	81	48	5.28%	-18.51%
2020	\$278,552	3.01	757	74	38	3.67%	-17.11%

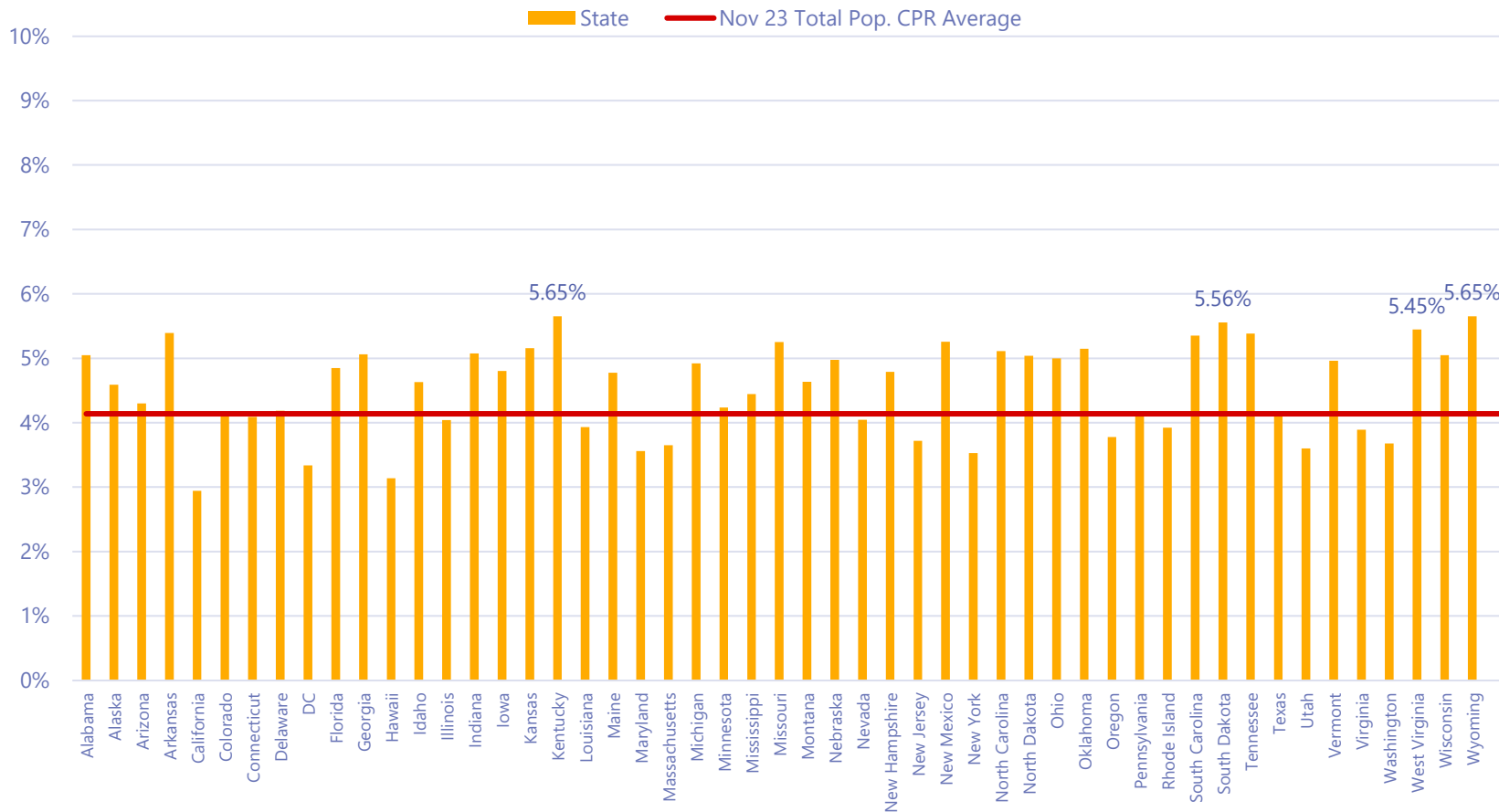
Tranche	Avg Orig Bal	WAC	WAvg Orig FICO	WAvg Orig LTV	WAvg Age	CPR	1mo CPR Change%
0.0000 - 2.4999	\$293,270	2.25	762	69	31	3.45%	-16.38%
2.5000 - 2.9999	\$291,177	2.79	758	72	33	3.26%	-16.45%
3.0000 - 3.4999	\$259,444	3.21	744	77	40	3.93%	-16.89%
3.5000 - 3.9999	\$221,243	3.71	736	78	63	4.63%	-15.38%
4.0000 - 4.4999	\$195,638	4.19	730	80	76	5.11%	-14.86%
4.5000 - 4.9999	\$200,007	4.71	727	81	65	4.88%	-16.86%
5.0000 - 5.4999	\$213,699	5.21	727	82	51	4.59%	-16.75%
5.5000 - 5.9999	\$242,821	5.72	729	82	31	4.18%	-18.99%
6.0000 - 6.4999	\$244,063	6.21	731	83	26	4.15%	-24.26%
6.5000 or more	\$248,043	6.96	731	83	15	5.40%	-22.81%

GSE and GNMA fixed rate product only

Source: Black Knight McDash

Prepayment Speed Trends

Average CPR by State - November 2023



Analysis

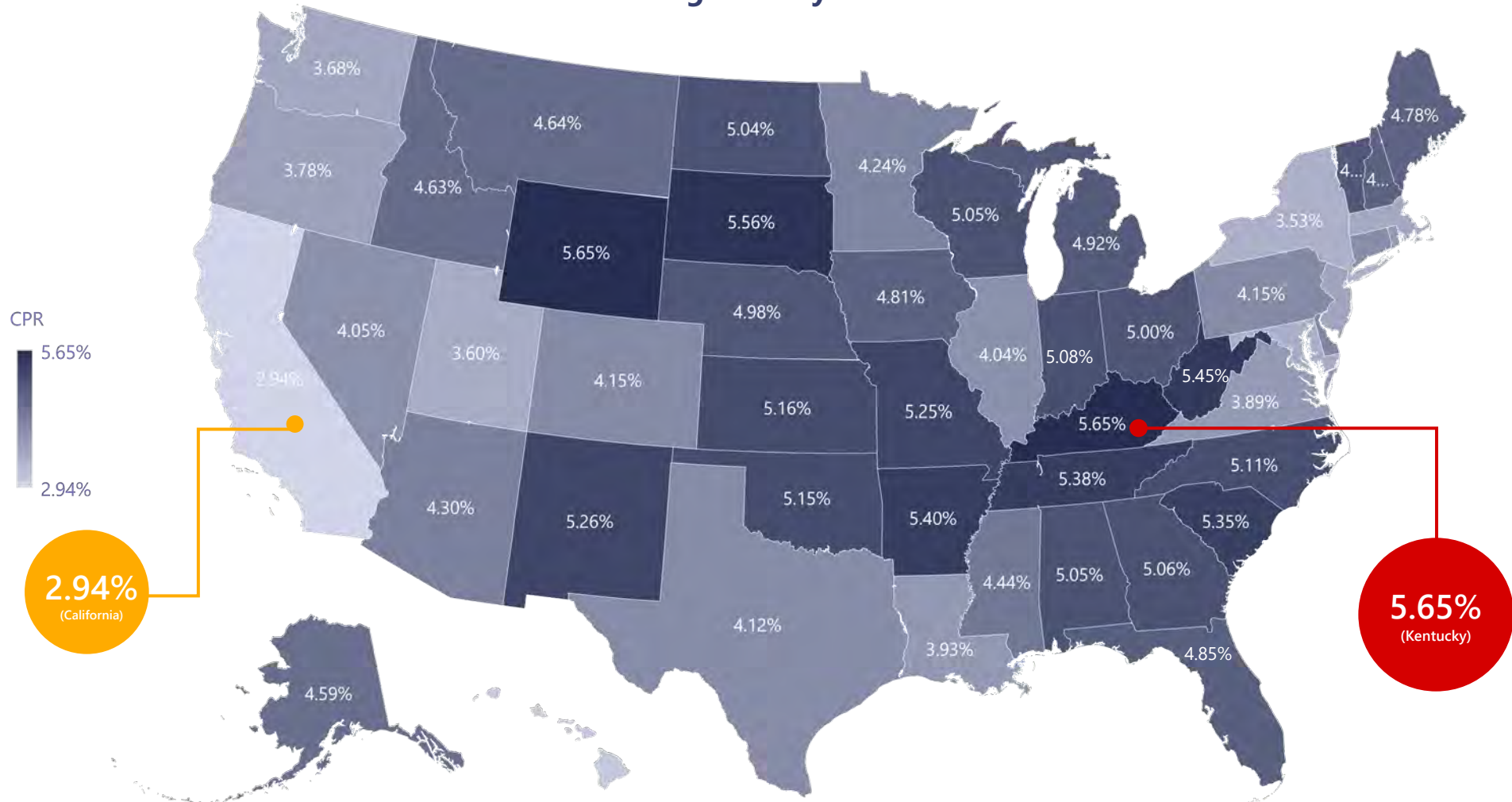
- Kentucky was the fastest prepaying state at 5.652%, closely followed by Wyoming (5.651%), South Dakota (5.56%), and West Virginia (5.45%).
- In November, the slowest prepaying state was California at 2.94%.
- The Pacific region showed the lowest prepayment speeds on average with a rate of 3.61% among WA, OR, CA, AK, and HI.
- The East South-Central region had the highest prepayment speed on average with a rate of 5.00% among the states of KY, TN, MS, and AL.

GSE and GNMA fixed rate product only

Source: Black Knight McDash

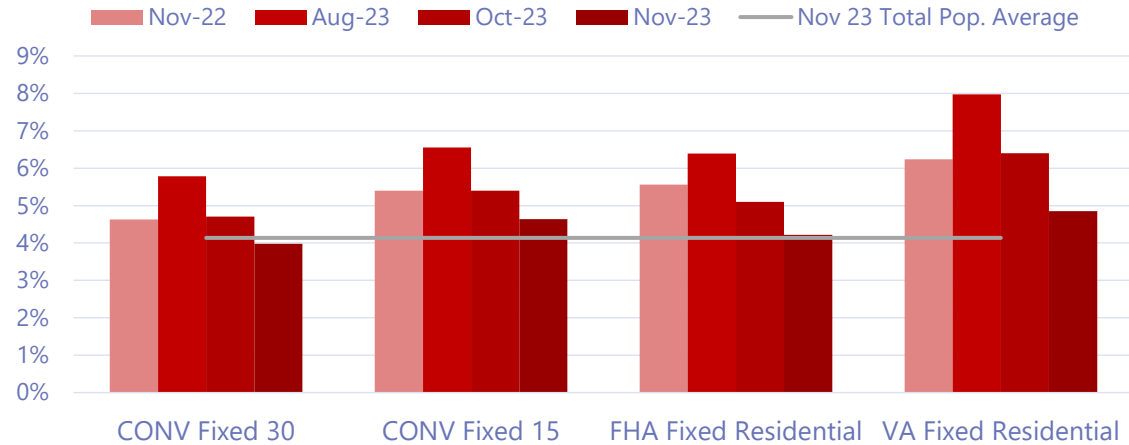
Prepayment Speed Trends (cont.)

Average CPR by State

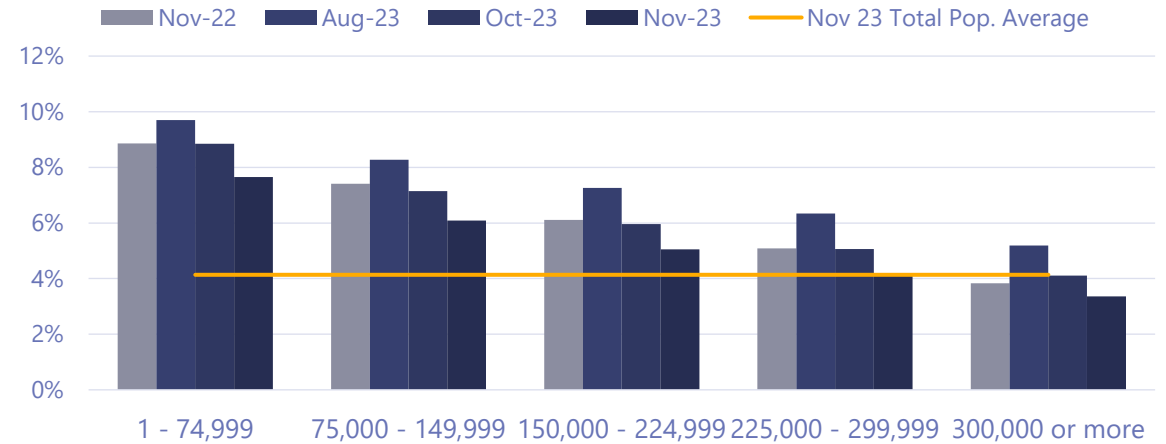


Prepayment Speed Trends (cont.)

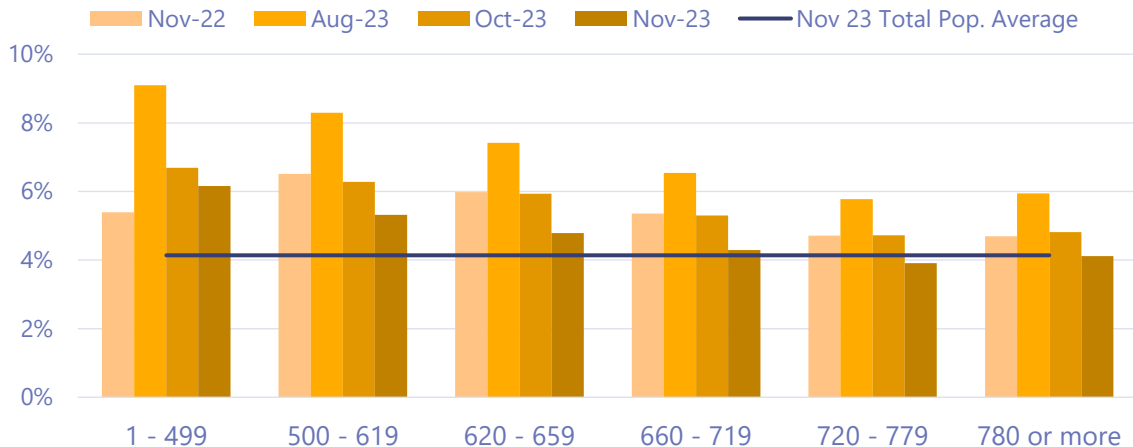
CPR by Fixed-Rate Product - November 2023



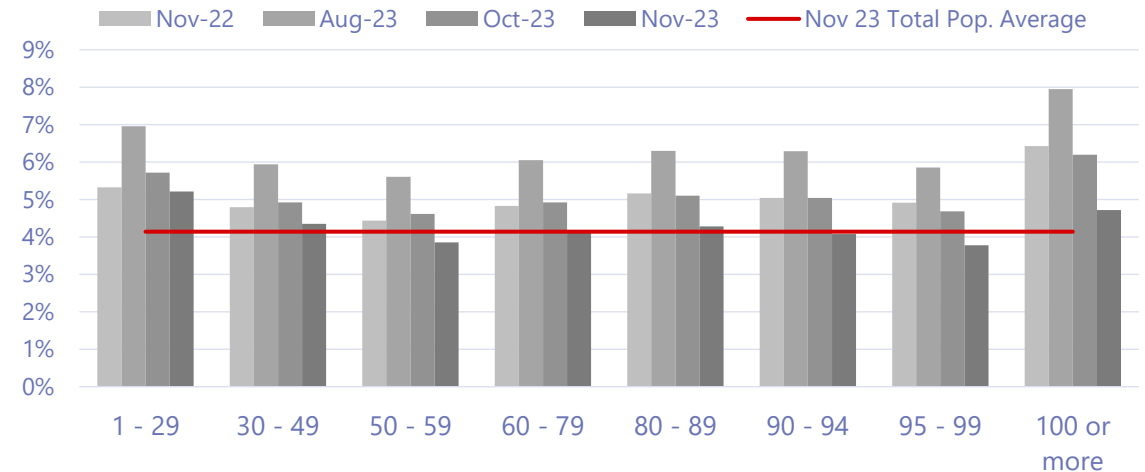
CPR by Original Loan Balance - November 2023



CPR by Original FICO - November 2023



CPR by Original LTV - November 2023



Delinquency Trends

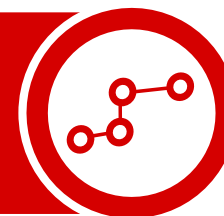
Summary

- The national delinquency and foreclosure rate went up to 2.95%, an increase of 12 bps compared to last month. This new value is 17 bps higher than the 2.78% national average delinquency and foreclosure rate from November 2022.
- CONV 30-year loans' and 15-year loans' delinquency and foreclosure rates increased by 3 bps each since October 2023.
- On a month-over-month basis, national average delinquency and foreclosure rates for fixed-rate FHA increased by 50 bps and VA loans increased by 15 bps.

NOTE: non-paying loans in forbearance are counted as delinquent in our data source.

Total delinquencies up

12 bps



Delinquency Summary

SUMMARY TABLES - November 2023

Loan Characteristics

Investor	Avg Orig Bal	WAC	WAvg Orig FICO	WAvg Orig LTV	WAvg Age
CONV Fixed 30	\$265,404	3.90	754	74	44
CONV Fixed 15	\$207,962	2.99	762	61	45
GNMA Fixed 30	\$224,570	4.04	698	93	45
GNMA Fixed 15	\$144,600	3.36	718	77	56

Delinquencies

30d DQ	60d DQ	+90d DQ	Total FC	Total DQ & FC	1mo DQ & FC Change%
0.90%	0.24%	0.42%	0.12%	1.67%	2.02%
0.42%	0.08%	0.13%	0.03%	0.67%	4.53%
4.01%	1.32%	1.74%	0.51%	7.59%	5.01%
1.48%	0.36%	0.41%	0.14%	2.39%	7.53%

Vintage	Avg Orig Bal	WAC	WAvg Orig FICO	WAvg Orig LTV	WAvg Age	30d DQ	60d DQ	+90d DQ	Total FC	Total DQ & FC	1mo DQ & FC Change%
2006	\$137,054	5.42	681	78	170	4.53%	1.41%	2.00%	1.67%	9.60%	-1.70%
2007	\$145,358	5.32	677	80	161	4.86%	1.62%	2.05%	2.00%	10.53%	-0.93%
2008	\$145,532	5.17	679	83	155	5.44%	1.69%	2.00%	1.56%	10.69%	3.51%
2009	\$158,179	4.85	721	80	160	3.08%	0.90%	0.98%	0.52%	5.49%	3.63%
2010	\$164,365	4.64	732	80	151	2.38%	0.68%	0.73%	0.36%	4.14%	4.47%
2011	\$163,009	4.43	736	79	142	2.04%	0.58%	0.66%	0.30%	3.58%	3.47%
2012	\$189,044	3.77	747	80	132	1.24%	0.30%	0.37%	0.17%	2.08%	3.42%
2013	\$181,375	3.80	742	79	123	1.39%	0.36%	0.47%	0.21%	2.44%	2.92%
2014	\$163,209	4.25	729	81	107	2.41%	0.71%	0.91%	0.42%	4.44%	3.81%
2015	\$185,829	3.94	734	79	97	2.17%	0.64%	0.81%	0.34%	3.96%	2.56%
2016	\$203,663	3.69	737	78	84	1.97%	0.58%	0.78%	0.32%	3.64%	3.46%
2017	\$191,743	4.08	727	80	72	2.79%	0.88%	1.18%	0.47%	5.31%	2.69%
2018	\$184,766	4.60	719	81	60	3.79%	1.32%	1.84%	0.69%	7.64%	2.80%
2019	\$219,019	3.98	732	81	48	2.51%	0.83%	1.15%	0.40%	4.89%	3.49%
2020	\$278,552	3.01	757	74	38	0.93%	0.26%	0.39%	0.10%	1.69%	4.07%

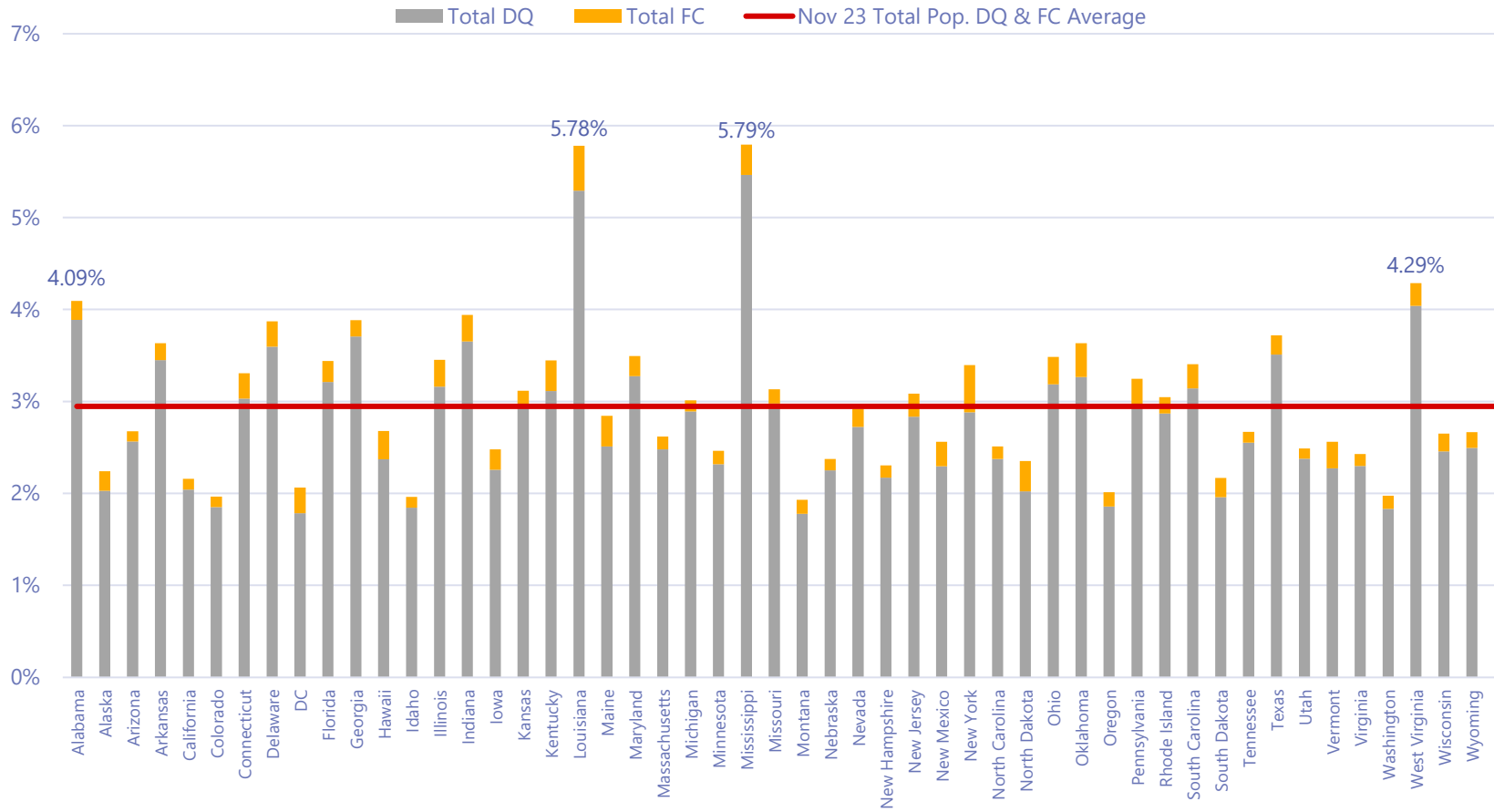
Tranche	Avg Orig Bal	WAC	WAvg Orig FICO	WAvg Orig LTV	WAvg Age	30d DQ	60d DQ	+90d DQ	Total FC	Total DQ & FC	1mo DQ & FC Change%
0.0000 - 2.4999	\$293,270	2.25	762	69	31	0.62%	0.16%	0.25%	0.09%	1.11%	4.32%
2.5000 - 2.9999	\$291,177	2.79	758	72	33	0.85%	0.23%	0.36%	0.09%	1.54%	4.64%
3.0000 - 3.4999	\$259,444	3.21	744	77	40	1.60%	0.50%	0.75%	0.19%	3.03%	4.02%
3.5000 - 3.9999	\$221,243	3.71	736	78	63	1.81%	0.54%	0.79%	0.24%	3.38%	3.21%
4.0000 - 4.4999	\$195,638	4.19	730	80	76	2.27%	0.67%	0.97%	0.35%	4.25%	3.20%
4.5000 - 4.9999	\$200,007	4.71	727	81	65	2.41%	0.72%	1.07%	0.36%	4.56%	3.95%
5.0000 - 5.4999	\$213,699	5.21	727	82	51	2.54%	0.82%	1.21%	0.38%	4.95%	5.07%
5.5000 - 5.9999	\$242,821	5.72	729	82	31	2.09%	0.67%	0.99%	0.26%	4.00%	6.12%
6.0000 - 6.4999	\$244,063	6.21	731	83	26	1.89%	0.60%	0.87%	0.22%	3.58%	7.38%
6.5000 or more	\$248,043	6.96	731	83	15	1.75%	0.58%	0.64%	0.19%	3.16%	5.10%

GSE and GNMA fixed rate product only

Source: Black Knight McDash

Delinquency Trends

Average Delinquency and Foreclosure by State - November 2023



Source: Black Knight McDash

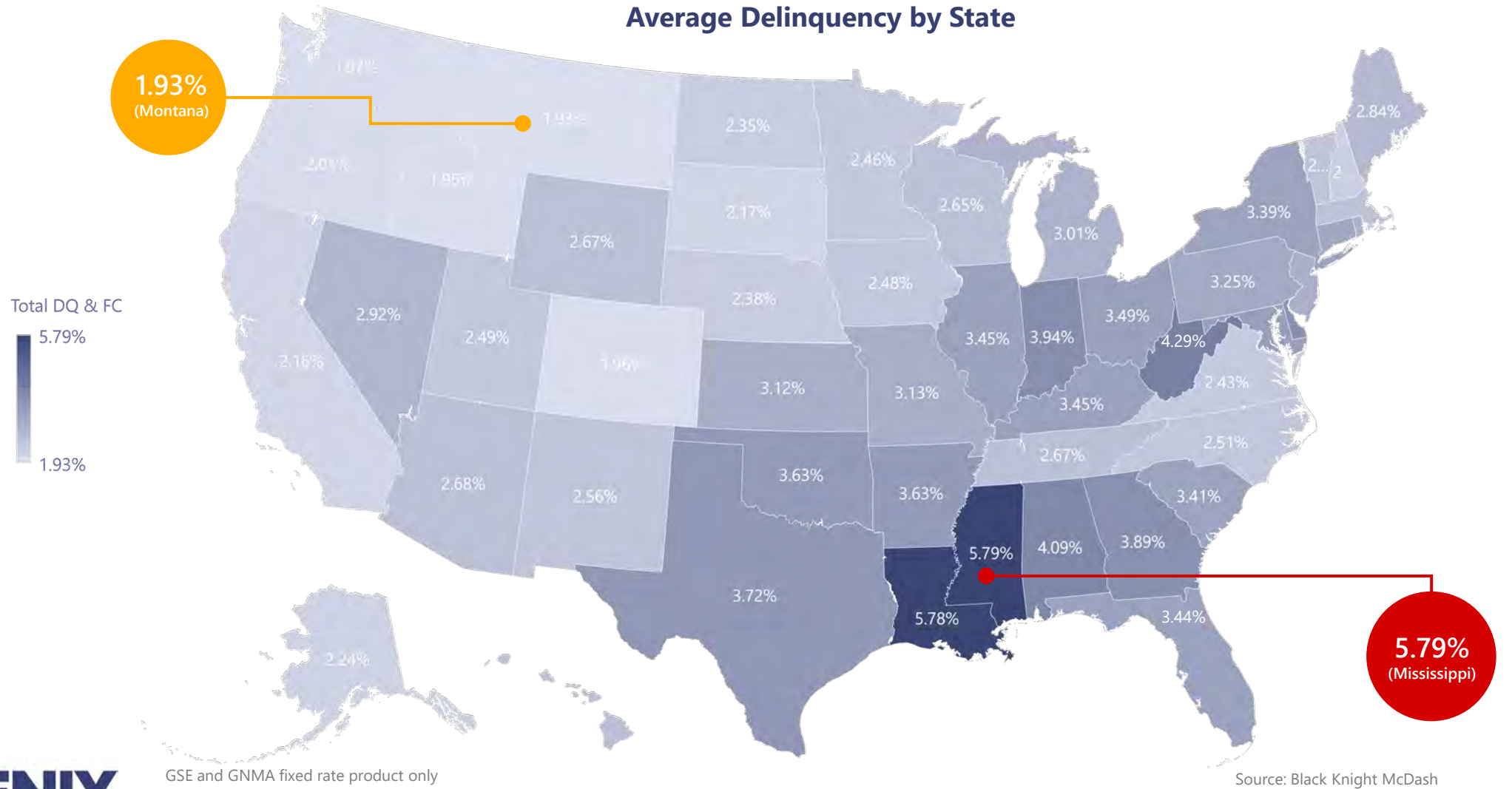
Analysis

- Montana was the best-performing state, where delinquency and foreclosure rates were 1.93%.
- The nation's most delinquent state was Mississippi with a 5.79% delinquency and foreclosure rate.
- Compared to November 2022, Louisiana had the nation's largest increase, moving from 4.92% to 5.78% (+86 bps).
- Regionally, the West South-Central region of TX, OK, AR, and LA had the highest delinquency rate (4.20%), and the East South-Central states of KY, TN, MS, and AL were close behind at 3.93%.

GSE and GNMA fixed rate product only

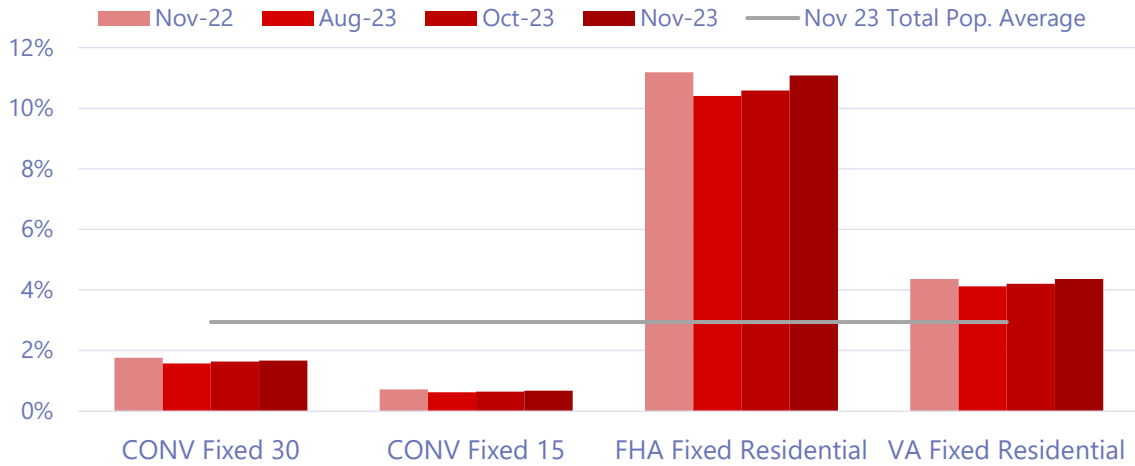


Delinquency Trends (cont.)

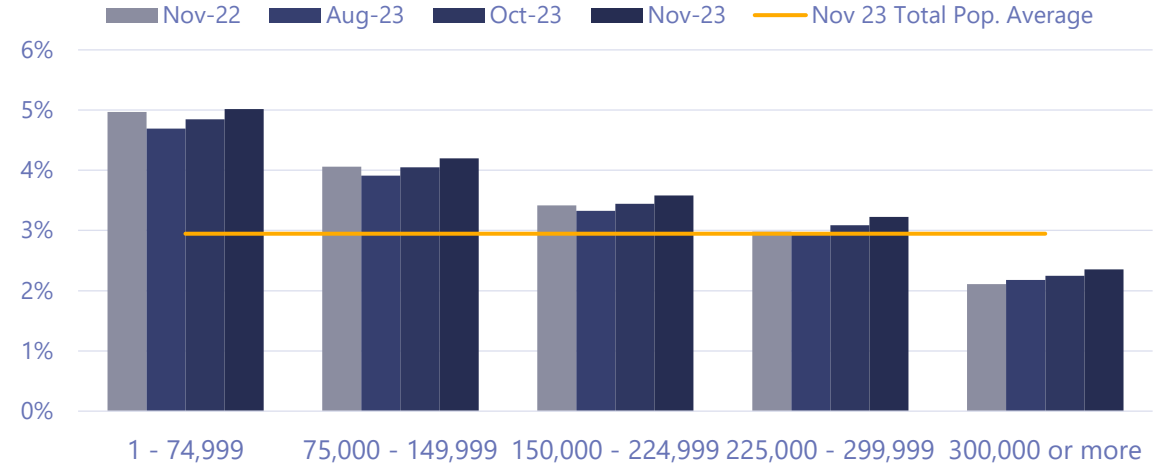


Delinquency Trends (cont.)

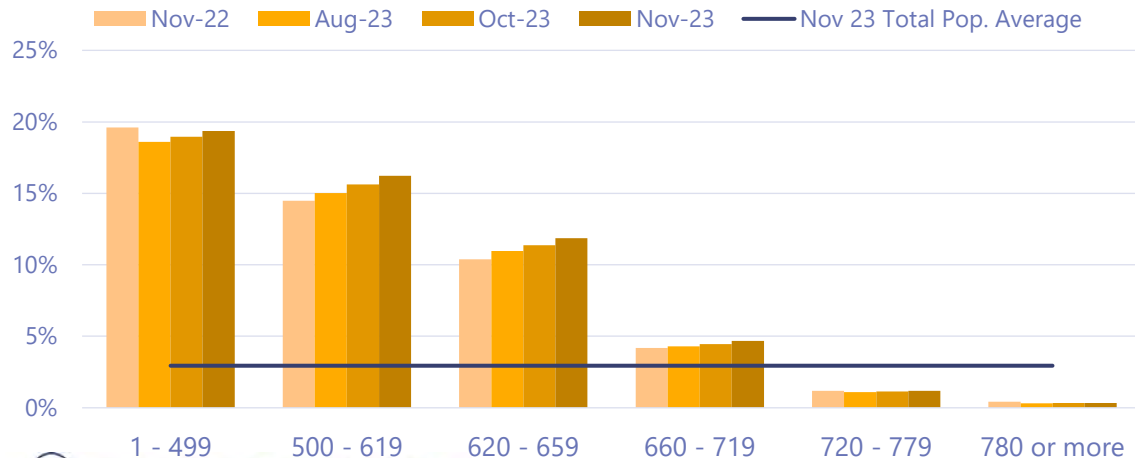
Delinquency and Foreclosure by Fixed-Rate Product - November 2023



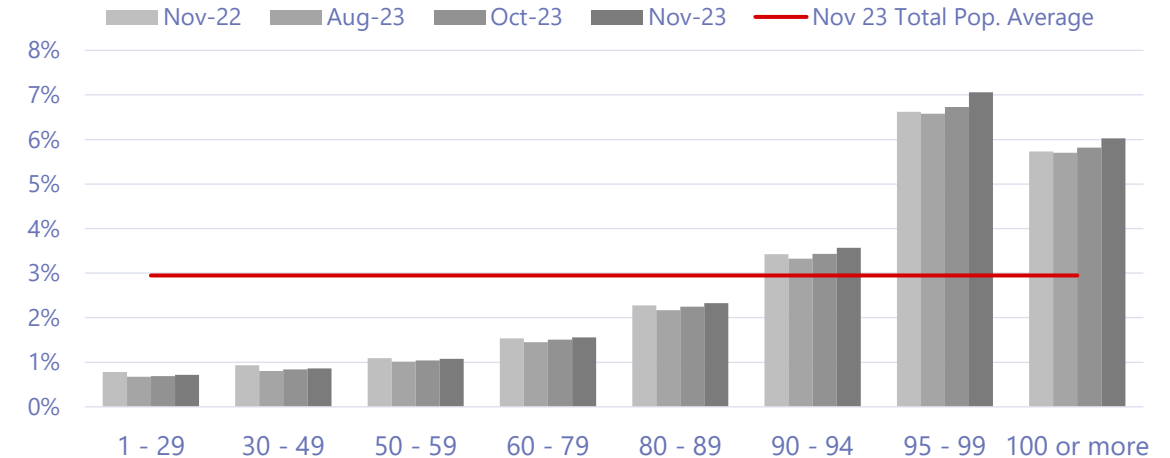
Delinquency and Foreclosure by Original Loan Balance - November 2023



Delinquency and Foreclosure by Original FICO - November 2023



Delinquency and Foreclosure by Original LTV - November 2023



Tables



State Summary

Prepayment and Delinquency

SUMMARY TABLES - November 2023

Loan Characteristics						Prepayments			Delinquencies						
State	WAvg Orig Bal	WAC	WAvg Orig FICO	WAvg Orig LTV	WAvg Age	CPR	1mo CPR Change%	CPR Factor	30d DQ	60d DQ	+90d DQ	Total FC	Total DQ & FC	1mo DQ & FC Change%	DQ Factor
National	\$244,219	3.82	743	77	44	4.14%	-16.91%	100.00%	1.58%	0.48%	0.70%	0.20%	2.95%	4.25%	100.00%
Alabama	\$189,638	3.98	732	83	46	5.05%	-19.78%	122.04%	2.27%	0.66%	0.97%	0.21%	4.09%	4.07%	139.02%
Alaska	\$276,211	3.74	739	84	48	4.59%	-28.36%	110.90%	1.22%	0.30%	0.51%	0.21%	2.24%	8.00%	76.06%
Arizona	\$247,526	3.85	743	76	37	4.30%	-15.74%	103.91%	1.49%	0.45%	0.63%	0.11%	2.68%	3.92%	90.83%
Arkansas	\$170,141	3.97	732	83	46	5.40%	-15.03%	130.38%	1.97%	0.60%	0.87%	0.18%	3.63%	2.45%	123.36%
California	\$350,922	3.56	752	68	44	2.94%	-16.16%	71.10%	1.17%	0.33%	0.54%	0.12%	2.16%	4.60%	73.28%
Colorado	\$308,445	3.68	753	74	38	4.15%	-17.93%	100.24%	1.08%	0.30%	0.47%	0.11%	1.96%	4.69%	66.69%
Connecticut	\$241,223	3.82	741	79	52	4.09%	-17.93%	98.89%	1.84%	0.52%	0.67%	0.28%	3.31%	3.67%	112.33%
Delaware	\$236,041	3.88	737	80	48	4.19%	-12.43%	101.14%	2.09%	0.72%	0.78%	0.28%	3.87%	4.73%	131.44%
DC	\$384,525	3.60	760	72	48	3.34%	-13.01%	80.62%	0.94%	0.29%	0.56%	0.28%	2.06%	0.39%	70.02%
Florida	\$236,024	4.05	737	80	40	4.85%	-20.40%	117.13%	1.77%	0.57%	0.87%	0.23%	3.44%	6.01%	116.77%
Georgia	\$220,534	3.97	733	81	43	5.06%	-15.35%	122.33%	2.01%	0.65%	1.05%	0.18%	3.89%	2.72%	131.92%
Hawaii	\$409,617	3.61	753	73	51	3.14%	-21.75%	75.83%	1.09%	0.42%	0.86%	0.31%	2.68%	4.40%	90.97%
Idaho	\$252,498	3.77	747	73	37	4.63%	-19.07%	111.87%	1.08%	0.30%	0.46%	0.12%	1.96%	-0.36%	66.66%
Illinois	\$206,539	3.86	742	80	48	4.04%	-17.04%	97.66%	1.73%	0.58%	0.85%	0.29%	3.45%	4.01%	117.18%
Indiana	\$169,151	4.08	733	82	43	5.08%	-15.95%	122.67%	2.16%	0.65%	0.84%	0.29%	3.94%	3.38%	133.79%
Iowa	\$171,484	3.74	743	80	46	4.81%	-20.45%	116.12%	1.33%	0.38%	0.55%	0.22%	2.48%	3.08%	84.21%
Kansas	\$181,882	3.89	740	82	45	5.16%	-17.94%	124.65%	1.70%	0.51%	0.72%	0.19%	3.12%	4.42%	105.84%
Kentucky	\$175,974	3.96	733	81	45	5.65%	-11.13%	136.59%	1.84%	0.56%	0.71%	0.33%	3.45%	4.20%	116.98%
Louisiana	\$192,878	3.96	725	83	49	3.93%	-17.89%	94.97%	2.96%	0.98%	1.35%	0.49%	5.78%	5.05%	196.26%
Maine	\$212,118	3.82	741	77	47	4.78%	-31.55%	115.44%	1.61%	0.45%	0.45%	0.33%	2.84%	5.22%	96.57%
Maryland	\$283,537	3.72	741	81	48	3.56%	-11.09%	86.03%	1.83%	0.58%	0.87%	0.22%	3.49%	4.70%	118.64%
Massachusetts	\$310,643	3.59	748	72	46	3.65%	-13.91%	88.23%	1.48%	0.41%	0.59%	0.14%	2.62%	5.05%	88.93%
Michigan	\$175,005	3.87	741	79	45	4.92%	-14.94%	118.92%	1.66%	0.51%	0.72%	0.12%	3.01%	3.72%	102.31%
Minnesota	\$227,195	3.79	750	80	45	4.24%	-19.26%	102.39%	1.30%	0.39%	0.62%	0.15%	2.46%	4.23%	83.63%
Mississippi	\$175,392	4.03	721	84	47	4.44%	-21.83%	107.37%	3.01%	0.97%	1.48%	0.33%	5.79%	3.06%	196.71%
Missouri	\$177,798	3.95	738	81	45	5.25%	-13.46%	126.97%	1.76%	0.53%	0.69%	0.15%	3.13%	4.19%	106.32%
Montana	\$237,414	3.81	748	75	45	4.64%	-24.12%	112.06%	1.10%	0.29%	0.39%	0.15%	1.93%	5.18%	65.50%
Nebraska	\$179,812	3.80	745	81	44	4.98%	-16.32%	120.23%	1.30%	0.42%	0.53%	0.13%	2.38%	0.59%	80.65%
Nevada	\$261,724	3.87	739	79	39	4.05%	-18.66%	97.78%	1.52%	0.45%	0.75%	0.20%	2.92%	7.19%	99.19%
New Hampshire	\$245,094	3.77	743	76	47	4.79%	-14.47%	115.71%	1.34%	0.35%	0.48%	0.13%	2.30%	1.63%	78.20%
New Jersey	\$286,797	3.75	743	76	47	3.72%	-15.54%	89.83%	1.63%	0.49%	0.72%	0.25%	3.09%	5.25%	104.79%
New Mexico	\$199,719	3.97	738	80	50	5.26%	-18.51%	127.07%	1.42%	0.40%	0.48%	0.27%	2.56%	2.03%	86.96%
New York	\$275,505	3.90	743	74	56	3.53%	-13.13%	85.23%	1.71%	0.44%	0.73%	0.51%	3.39%	3.67%	115.25%
North Carolina	\$219,515	3.90	743	79	42	5.11%	-15.43%	123.56%	1.41%	0.43%	0.54%	0.14%	2.51%	3.84%	85.30%
North Dakota	\$211,334	3.65	747	82	44	5.04%	-10.20%	121.73%	1.24%	0.35%	0.44%	0.33%	2.35%	-0.04%	79.90%
Ohio	\$164,261	4.01	734	82	47	5.00%	-16.36%	120.83%	1.88%	0.56%	0.75%	0.30%	3.49%	3.17%	118.34%
Oklahoma	\$175,320	4.11	732	84	47	5.15%	-18.60%	124.46%	1.88%	0.57%	0.82%	0.37%	3.63%	2.57%	123.33%
Oregon	\$274,048	3.76	752	74	43	3.78%	-18.09%	91.25%	1.03%	0.29%	0.53%	0.15%	2.01%	2.71%	68.29%
Pennsylvania	\$197,917	3.86	741	80	50	4.15%	-14.33%	100.27%	1.75%	0.52%	0.69%	0.28%	3.25%	3.38%	110.19%
Rhode Island	\$243,270	3.80	741	77	48	3.92%	-20.69%	94.78%	1.70%	0.47%	0.70%	0.18%	3.05%	2.59%	103.40%
South Carolina	\$211,325	3.96	737	80	42	5.35%	-13.74%	129.36%	1.79%	0.57%	0.78%	0.26%	3.41%	5.06%	115.62%
South Dakota	\$201,505	3.69	749	79	43	5.56%	-20.36%	134.29%	1.17%	0.35%	0.44%	0.21%	2.17%	1.50%	73.65%
Tennessee	\$218,911	3.95	739	79	40	5.38%	-17.45%	130.06%	1.49%	0.42%	0.64%	0.12%	2.67%	2.30%	90.63%
Texas	\$231,718	4.02	735	81	41	4.12%	-17.17%	99.59%	2.01%	0.65%	0.86%	0.21%	3.72%	4.85%	126.25%
Utah	\$294,403	3.71	746	75	36	3.60%	-19.26%	87.00%	1.32%	0.43%	0.63%	0.11%	2.49%	3.88%	84.52%
Vermont	\$211,976	3.89	746	77	51	4.96%	-19.46%	119.91%	1.29%	0.38%	0.60%	0.29%	2.56%	2.73%	86.96%
Virginia	\$280,771	3.68	747	80	45	3.89%	-18.40%	93.98%	1.39%	0.39%	0.52%	0.13%	2.43%	3.58%	82.48%
Washington	\$317,654	3.70	750	74	41	3.68%	-20.55%	88.84%	1.05%	0.29%	0.50%	0.14%	1.97%	4.22%	67.03%
West Virginia	\$164,942	4.00	724	84	48	5.45%	-10.85%	131.68%	2.54%	0.69%	0.81%	0.25%	4.29%	6.38%	145.53%
Wisconsin	\$190,730	3.85	742	80	46	5.05%	-18.59%	122.04%	1.47%	0.43%	0.56%	0.19%	2.65%	4.09%	89.95%
Wyoming	\$228,462	3.77	743	79	44	5.65%	-13.22%	136.56%	1.55%	0.45%	0.50%	0.17%	2.67%	3.29%	90.53%

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