

Single Family Loan-Level Dataset Summary Statistics

April 2020

Background

- Freddie Mac is making the Single Family Loan-Level Dataset available at the direction of its regulator, the Federal Housing Finance Agency (FHFA) as part of a larger effort to increase transparency and help investors build more accurate credit performance models in support of the risk-sharing initiatives highlighted in FHFA’s Conservatorship Scorecard.¹
- The Single Family Loan-Level Dataset includes loan-level origination and loan performance and actual loss data on a portion of Single Family mortgages acquired by Freddie Mac. Approximately 26.7 million loans are in the “full” Single Family Loan-Level Dataset, and an additional approximately 1 million loans are in the Single Family HARP Loan-Level Dataset, meeting the following selection criteria²:
 - » Fully amortizing, 30-year fixed-rate mortgages originated from January 1, 1999, through December 31, 2018 with monthly loan performance data through June 30, 2019 that were sold to Freddie Mac or included in Freddie Mac Participation Certificates (PCs).
 - » Fully amortizing, fixed-rate mortgages originated from January 1, 2005, through December 31, 2018 with monthly loan performance data through June 30, 2019 that were sold to Freddie Mac or included in Freddie Mac Participation Certificates (PCs).
 - » Mortgages categorized as having verified or waived documentation (i.e. “full documentation”).
- Freddie Mac has created a smaller dataset for those who may not require, or have the capability, to download the full dataset. The sample dataset is a simple random sample³ of 50,000 loans selected from each vintage year of the full Single Family Loan-Level Dataset totaling 1,000,000 loans. This sample dataset doesn’t include loans from the Single Family HARP Loan-Level Dataset.

¹The 2020 Conservatorship Scorecard can be found at <https://www.fhfa.gov/AboutUs/Reports/ReportDocuments/2020-Scorecard-10282019.pdf>

² Refer to the Appendix A for a summary of the criteria excluding loans from the Single Family Loan-Level Dataset

³ In simple random sampling, each loan in the full Single Family Loan-Level Dataset has an equal probability of being selected once for inclusion in the sample dataset. A simple random sample is meant to be an unbiased representation of the larger population.

Full Volume Dataset – Origination Summary Statistics								
Year	Loan Count	Total Original UPB (\$B)	Average Original UPB (\$)	Credit Score ^[1]	Original Combined Loan-to-Value (CLTV) Ratio ¹	Original Loan-to-Value (LTV) Ratio ¹	Original Debt-to-Income (DTI) Ratio ¹	Weighted Average Coupon (WAC) ¹
1999	1,096,191	138.0	125,924	712	77.6	77.5	33.2	7.3
2000	788,595	103.9	131,737	712	78.8	78.3	35.2	8.1
2001	1,757,916	259.7	147,749	715	76.2	75.5	33.7	7.0
2002	1,684,394	261.9	155,476	718	74.9	73.8	34.0	6.5
2003	1,928,288	311.3	161,459	725	73.5	72.2	32.8	5.7
2004	1,128,725	188.2	166,754	718	75.4	73.6	35.6	5.8
2005	1,693,466	289.7	171,042	725	72.2	70.5	36.3	5.8
2006	1,263,545	227.0	179,640	724	74.3	71.7	37.6	6.4
2007	1,221,755	224.1	183,417	725	75.8	73.1	37.8	6.3
2008	1,180,111	240.3	203,643	742	72.5	70.7	37.2	6.0
2009	1,974,792	423.3	214,352	763	67.7	65.9	32.3	4.9
2010	1,271,558	265.3	208,660	764	68.6	67.1	32.2	4.6
2011	955,634	208.2	217,846	765	69.3	68.0	32.3	4.3
2012	1,331,562	296.0	222,276	767	69.9	68.6	31.4	3.6
2013	1,301,930	283.9	218,075	760	72.5	71.4	32.6	3.8
2014	980,771	215.5	219,689	752	76.7	75.9	34.4	4.3
2015	1,331,049	305.9	229,835	753	75.0	74.2	34.3	4.0
2016	1,563,506	377.2	241,281	752	74.3	73.6	34.6	3.8
2017	1,227,231	289.4	235,781	748	75.9	75.4	35.6	4.2
2018	1,090,754	257.5	236,107	749	76.2	75.8	36.3	4.7
Total	26,771,773	5,166.4	192,978	742	73.4	72.1	34.3	5.1

Full Volume Dataset – Performance Summary Statistics ¹												
Year	Loan Count	Prepay % ²	Cumulative Default Event % ³	Remaining % ⁴	Cumulative Post-Default Event Repurchase % ⁵	Ever D180 % ⁶	D180 and Pre-D180 Credit Event % ⁷	Cumulative Modification % ⁸	Ever D120 % ⁹	Ever D120 and Pre-D120 Credit Event % ¹⁰	Pre-D120 Modification rate ¹¹	Cumulative Loss amount (\$ B) ¹²
1999	1,096,191	97.157%	1.378%	1.465%	0.117%	2.315%	2.406%	0.591%	3.140%	3.160%	0.034%	0.2
2000	788,595	97.683%	1.514%	0.803%	0.212%	2.325%	2.442%	0.592%	3.071%	3.096%	0.042%	0.2
2001	1,757,916	96.627%	1.720%	1.653%	0.212%	2.547%	2.668%	0.701%	3.272%	3.299%	0.046%	0.8
2002	1,684,394	94.787%	2.166%	3.047%	0.196%	3.135%	3.284%	0.999%	3.905%	3.939%	0.065%	1.1
2003	1,928,288	90.826%	2.578%	6.596%	0.075%	3.864%	4.047%	1.534%	4.784%	4.836%	0.093%	1.9
2004	1,128,725	87.937%	4.346%	7.717%	0.155%	6.167%	6.493%	2.652%	7.441%	7.546%	0.190%	2.3
2005	1,693,466	85.178%	6.465%	8.357%	0.219%	8.477%	8.991%	3.842%	9.980%	10.164%	0.331%	7.4
2006	1,263,545	83.856%	9.095%	7.050%	0.439%	11.390%	12.121%	5.278%	13.104%	13.374%	0.532%	9.1
2007	1,221,755	81.578%	10.325%	8.097%	0.760%	13.365%	14.172%	6.322%	15.293%	15.605%	0.630%	9.6
2008	1,180,111	87.012%	5.428%	7.560%	0.394%	7.778%	8.209%	3.876%	9.082%	9.244%	0.308%	4.7
2009	1,974,792	84.427%	0.736%	14.838%	0.029%	1.289%	1.356%	0.569%	1.645%	1.671%	0.025%	0.8
2010	1,271,558	75.423%	0.391%	24.185%	0.008%	0.810%	0.847%	0.402%	1.095%	1.109%	0.015%	0.2
2011	955,634	67.875%	0.221%	31.903%	0.003%	0.555%	0.577%	0.309%	0.780%	0.787%	0.010%	0.1
2012	1,331,562	44.513%	0.104%	55.382%	0.001%	0.325%	0.336%	0.204%	0.485%	0.489%	0.005%	0.0
2013	1,301,930	42.023%	0.102%	57.875%	0.001%	0.398%	0.408%	0.284%	0.609%	0.613%	0.011%	0.0
2014	980,771	46.852%	0.108%	53.040%	0.001%	0.533%	0.541%	0.447%	0.833%	0.835%	0.021%	0.0
2015	1,331,049	30.992%	0.061%	68.947%	0.000%	0.401%	0.407%	0.368%	0.662%	0.665%	0.018%	0.0
2016	1,563,506	18.413%	0.028%	81.559%	0.000%	0.318%	0.319%	0.346%	0.569%	0.570%	0.020%	0.0
2017	1,227,231	11.652%	0.012%	88.337%	0.000%	0.219%	0.220%	0.226%	0.407%	0.408%	0.016%	0.0
2018	1,090,754	6.691%	0.002%	93.307%	.	0.036%	0.037%	0.007%	0.088%	0.088%	0.001%	0.0
Total	26,771,773	67.947%	2.368%	29.685%	0.139%	3.351%	3.535%	1.486%	4.060%	4.123%	0.120%	39.0

¹ Reflects monthly performance data through June 30, 2019.

² Count of loans that prepaid in full or were repurchased prior to default (Zero Balance Code = 01 or 06) divided by Loan Count; partial prepayments (curtailments) are excluded from the calculation

³ Count of loans that were terminated in the dataset due to a non-prepayment default event (Zero Balance Code = 02, 03, 09, or 15) divided by Loan Count

⁴ Count of active loans, divided by Loan Count

⁵ Count of loans that were terminated in the dataset due to a non-prepayment default event and subsequently repurchased (Zero Balance Code = 02, 03, 09, or 15 AND repurchase flag = 'Y'), divided by Loan Count

⁶ Count of loans that reached a delinquency status of D180, including at REO Acquisition, divided by Loan Count

⁷ Count of loans that reached a delinquency status of D180, including at REO Acquisition, and loans that were terminated in the dataset due to a non-prepayment credit event (Zero Balance Code = 02, 03, 09, or 15) divided by Loan Count.

⁸ Count of loans that were modified divided by Loan Count. Repeat mods on a loan are not part of the calculation.

⁹ Count of loans that reached a delinquency status of D120, including at REO Acquisition, divided by loan count.

¹⁰ Count of loans that reached a delinquency status of D120, including at REO acquisition, and loans that were terminated in the dataset due to a non-prepayment credit event (Zero Balance Code = 02, 03, 09, or 15) divided by Loan Count.

¹¹ Count of loans that were modified at or before a delinquency status of D120 divided by Loan count. Repeat modifications s on a loan are not part of the calculation.

¹² Sum of actual loss column for loans with a non-prepayment credit event (zero balance code = 02, 03, 09, or 15).

Full Volume Dataset – Performance Summary Statistics ¹ (Cont'd)											
Year	Total Original UPB (\$B)	% of Original UPB Prepaid ²	UPB-Weighted Cumulative Default Event % ³	% of Original UPB Remaining ⁴	UPB-Weighted Cumulative Post-Default Event Repurchase % ⁵	% of Original UPB Ever D120 ⁶	% of Original UPB D120 and Pre D120 Credit Event ⁷	UPB Weighted Pre-D120 Modification rate ¹¹	UPB weighted Ever D180% ⁹	UPB Weighted Ever D180 and Pre-D180 Credit Event% ¹⁰	UPB-Weighted Cumulative Modification % ⁸
1999	138.0	91.487%	0.985%	0.539%	0.096%	2.350%	2.365%	0.028%	1.717%	1.781%	0.473%
2000	103.9	95.678%	1.053%	0.304%	0.164%	2.273%	2.291%	0.035%	1.701%	1.781%	0.480%
2001	259.7	93.662%	1.128%	0.661%	0.152%	2.270%	2.288%	0.033%	1.743%	1.821%	0.515%
2002	261.9	90.924%	1.399%	1.326%	0.132%	2.631%	2.652%	0.047%	2.104%	2.200%	0.728%
2003	311.3	82.064%	1.908%	3.292%	0.056%	3.634%	3.671%	0.075%	2.972%	3.103%	1.278%
2004	188.2	80.272%	3.565%	4.202%	0.127%	6.142%	6.227%	0.169%	5.173%	5.431%	2.412%
2005	289.7	73.790%	6.295%	4.392%	0.221%	9.340%	9.516%	0.342%	8.115%	8.599%	3.825%
2006	227.0	76.626%	9.209%	4.126%	0.461%	12.926%	13.199%	0.566%	11.439%	12.164%	5.525%
2007	224.1	75.996%	10.491%	4.923%	0.810%	15.313%	15.626%	0.666%	13.601%	14.402%	6.754%
2008	240.3	82.456%	5.214%	4.194%	0.408%	8.744%	8.900%	0.312%	7.621%	8.025%	3.994%
2009	423.3	78.177%	0.621%	8.099%	0.028%	1.378%	1.400%	0.022%	1.105%	1.163%	0.515%
2010	265.3	70.249%	0.284%	13.527%	0.007%	0.825%	0.836%	0.012%	0.618%	0.647%	0.338%
2011	208.2	64.159%	0.155%	18.670%	0.003%	0.569%	0.573%	0.007%	0.411%	0.428%	0.253%
2012	296.0	38.479%	0.069%	40.004%	0.001%	0.356%	0.358%	0.004%	0.238%	0.246%	0.165%
2013	283.9	37.774%	0.071%	43.893%	0.001%	0.486%	0.489%	0.009%	0.316%	0.324%	0.245%
2014	215.5	47.290%	0.079%	41.441%	0.001%	0.712%	0.714%	0.020%	0.457%	0.464%	0.409%
2015	305.9	30.290%	0.046%	58.887%	0.000%	0.586%	0.587%	0.016%	0.360%	0.364%	0.344%
2016	377.2	17.193%	0.021%	74.267%	0.000%	0.521%	0.521%	0.019%	0.292%	0.293%	0.328%
2017	289.4	11.225%	0.009%	83.044%	0.000%	0.388%	0.388%	0.015%	0.208%	0.209%	0.225%
2018	257.5	7.528%	0.001%	89.260%	.	0.080%	0.080%	0.001%	0.034%	0.034%	0.006%
Total	5,166.4	59.095%	1.963%	27.862%	0.118%	3.315%	3.368%	0.111%	2.789%	2.939%	1.353%

¹ Reflects monthly performance data through June 30, 2019.

² Calculated by dividing the ending UPB of all prepaid loans (Zero Balance Code = 01 or 06) by the Total Original UPB. The UPB is determined using the priority in Footnote 12.

³ Calculated by dividing the sum of the default event UPB by the Total Original UPB. The calculation does not include Prepayments or pre-default Repurchases (Zero Balance Code = 01 or 06). The UPB is determined using the priority in Footnote 12.

⁴ Calculated by dividing the ending UPB of all active loans (for which the Zero Balance Code is null in the terminal record) by the Total Original UPB. The UPB is determined using the priority in Footnote 12.

⁵ Calculated by dividing the sum of the post-default event repurchase UPB by the Total Original UPB, for loans that were terminated due to a non-prepayment default event (see Footnote 3) and subsequently repurchased (Zero Balance Code = 02, 03, 09, or 15 AND repurchase flag = 'Y'). See Footnote 12 for determining the post-default event repurchase UPB

⁶ Calculated by dividing the ending UPB of all loans that reached a delinquency status of D120, including at REO Acquisition, by the Total Original UPB. The UPB is determined using the priority in Footnote 12.

⁷ Calculated by dividing the ending UPB of all loans that reached a delinquency status as of D120, including at REO Acquisition, and loans that were terminated in the dataset due to a non-prepayment credit event (Zero Balance Code = 02, 03, 09, or 15) by the Total Original UPB. The UPB is determined using the priority in Footnote 12.

⁸ Calculated by dividing the sum of the modification UPB by the Total Original UPB. The modification UPB is the current actual UPB as of the month of modification (modification flag = 'Y'). Repeat mods on a loan are not part of the calculation.

⁹ Calculated by dividing the ending UPB of all loans that reached a delinquency status of D180, including at REO Acquisition, by the Total Original UPB. The UPB is determined using the priority in Footnote 12.

¹⁰ Calculated by dividing the ending UPB of all loans that reached a delinquency status as of D180, including at REO Acquisition, and loans that were terminated in the dataset due to a non-prepayment credit event (Zero Balance Code = 02, 03, 09, or 15) by the Total Original UPB. The UPB is determined using the priority in Footnote 12.

¹¹ Calculated by dividing the ending UPB of all loans that were modified at or before D120 by the Total Original UPB. Repeat mods on a loan are not part of the calculation.

¹² If the ending UPB on the terminal record is null, determine the UPB by using the following priority: 1. Use the Current Actual UPB from the previous period; 2. if the Current Actual UPB in the previous period is null, use the Original UPB.

Sample Dataset – Origination Summary Statistics								
Year	Loan Count	Total Original UPB (\$B)	Average Original UPB (\$)	Credit Score ¹	Original Combined Loan-to-Value (CLTV) Ratio ¹	Original Loan-to-Value (LTV) Ratio ¹	Original Debt-to-Income (DTI) Ratio ¹	Weighted Average Coupon (WAC) ¹
1999	50000	6.3	125,690	711	78.0	77.9	33.6	7.4
2000	50000	6.5	130,919	712	79.0	78.4	35.2	8.1
2001	50000	7.4	148,132	715	76.5	75.7	33.8	7.0
2002	50000	7.8	155,042	717	75.0	74.0	34.1	6.6
2003	50000	8.0	160,601	723	73.8	72.5	33.1	5.8
2004	50000	8.3	166,462	718	75.4	73.6	35.8	5.8
2005	50000	8.5	170,593	725	72.1	70.3	36.4	5.8
2006	50000	9.0	179,593	724	74.3	71.8	37.6	6.4
2007	50000	9.2	183,558	725	75.7	73.0	37.8	6.3
2008	50000	10.2	203,881	743	72.4	70.8	37.1	6.0
2009	50000	10.7	213,827	763	67.9	66.2	32.6	4.9
2010	50000	10.4	208,389	763	68.7	67.2	32.4	4.6
2011	50000	10.9	217,079	764	69.5	68.1	32.4	4.4
2012	50000	11.1	222,672	767	69.9	68.5	31.4	3.6
2013	50000	10.9	217,600	759	73.1	72.0	32.9	3.9
2014	50000	11.0	219,879	752	76.8	76.1	34.4	4.3
2015	50000	11.5	229,363	752	75.1	74.4	34.4	4.0
2016	50000	12.0	239,718	751	74.3	73.7	34.7	3.8
2017	50000	11.8	235,151	748	75.9	75.4	35.6	4.2
2018	50000	11.7	234,945	749	76.1	75.8	36.3	4.7
Total	1,000,000	193.2	193,155	742	73.7	72.5	34.5	5.2

¹ Weighted averages using Original UPB

Sample Dataset – Performance Summary Statistics ¹												
Year	Loan Count	Prepay % ²	Cumulative Default Event % ³	Remaining % ⁴	Cumulative Post-Default Event Repurchase % ⁵	Ever D180 % ⁶	D180 and Pre-D180 Credit Event % ⁷	Cumulative Modification % ⁸	Ever D120% ⁹	Ever D120 and Pre-D120 Credit Event% ¹⁰	Pre-D120 Modification rate ¹¹	Cumulative Loss amount (\$ B) ¹²
1999	50,000	97.2%	1.5%	1.3%	0.2%	2.5%	2.6%	0.6%	3.4%	3.4%	0.0%	0.0
2000	50,000	97.6%	1.6%	0.8%	0.2%	2.3%	2.4%	0.6%	3.1%	3.1%	0.0%	0.0
2001	50,000	96.6%	1.8%	1.7%	0.2%	2.6%	2.7%	0.7%	3.2%	3.2%	0.0%	0.0
2002	50,000	94.9%	2.0%	3.0%	0.2%	3.0%	3.1%	0.9%	3.8%	3.8%	0.1%	0.0
2003	50,000	90.6%	2.8%	6.6%	0.1%	4.0%	4.2%	1.6%	5.0%	5.1%	0.1%	0.1
2004	50,000	87.9%	4.3%	7.8%	0.2%	6.1%	6.4%	2.6%	7.4%	7.5%	0.1%	0.1
2005	50,000	85.5%	6.2%	8.3%	0.2%	8.1%	8.6%	3.8%	9.7%	9.9%	0.4%	0.2
2006	50,000	83.7%	9.3%	7.0%	0.4%	11.6%	12.4%	5.3%	13.3%	13.6%	0.5%	0.4
2007	50,000	81.6%	10.4%	8.0%	0.8%	13.5%	14.3%	6.4%	15.4%	15.7%	0.6%	0.4
2008	50,000	87.9%	4.9%	7.2%	0.3%	7.2%	7.6%	3.7%	8.4%	8.6%	0.3%	0.2
2009	50,000	83.7%	0.7%	15.6%	0.0%	1.2%	1.3%	0.5%	1.6%	1.6%	0.0%	0.0
2010	50,000	76.2%	0.4%	23.4%	0.0%	0.8%	0.9%	0.4%	1.1%	1.1%	0.0%	0.0
2011	50,000	69.0%	0.2%	30.8%	0.0%	0.6%	0.6%	0.3%	0.8%	0.8%	0.0%	0.0
2012	50,000	45.6%	0.1%	54.3%	0.0%	0.3%	0.3%	0.2%	0.4%	0.4%	0.0%	0.0
2013	50,000	44.2%	0.1%	55.7%	0.0%	0.4%	0.4%	0.3%	0.7%	0.7%	0.0%	0.0
2014	50,000	48.2%	0.1%	51.6%	0.0%	0.6%	0.6%	0.5%	0.9%	0.9%	0.0%	0.0
2015	50,000	31.4%	0.1%	68.5%	0.0%	0.4%	0.4%	0.4%	0.7%	0.7%	0.0%	0.0
2016	50,000	19.5%	0.0%	80.5%	0.0%	0.4%	0.4%	0.4%	0.6%	0.6%	0.0%	0.0
2017	50,000	12.0%	0.0%	88.0%	0.0%	0.2%	0.2%	0.2%	0.4%	0.4%	0.0%	0.0
2018	50,000	6.7%	0.0%	93.2%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0
Total	1,000,000	67.0%	2.3%	30.7%	0.1%	3.3%	3.5%	1.5%	4.0%	4.1%	0.1%	1.4

¹ Reflects monthly performance data through June 30, 2019.

² Count of loans that prepaid in full or were repurchased prior to default (Zero Balance Code = 01 or 06) divided by Loan Count; partial prepayments (curtailments) are excluded from the calculation

³ Count of loans that were terminated in the dataset due to a non-prepayment default event (Zero Balance Code = 02, 03, 09, or 15) divided by Loan Count

⁴ Count of active loans, divided by Loan Count

⁵ Count of loans that were terminated in the dataset due to a non-prepayment default event and subsequently repurchased (Zero Balance Code = 02, 03, 09, or 15 AND repurchase flag = ‘Y’), divided by Loan Count

⁶ Count of loans that reached a delinquency status of D180, including at REO Acquisition, divided by Loan Count

⁷ Count of loans that reached a delinquency status of D180, including at REO Acquisition, and loans that were terminated in the dataset due to a non-prepayment credit event (Zero Balance Code = 02, 03, 09, or 15) divided by Loan Count

⁸ Count of loans that were modified divided by Loan Count. Repeat modifications on a loan are not part of the calculation.

⁹ Count of loans that reached a delinquency status of D120, including at REO Acquisition, divided by loan count.

¹⁰ Count of loans that reached a delinquency status of D120, including at REO acquisition, and loans that were terminated in the dataset due to a non-prepayment credit event (Zero Balance Code = 02, 03, 09, or 15) divided by Loan Count.

¹¹ Count of loans that were modified at or before a delinquency status of D120 divided by Loan count. Repeat modifications on a loan are not part of the calculation.

¹² Sum of actual loss column for loans with a non-prepayment credit event (zero balance code = 02, 03, 09, or 15).

Sample Dataset – Performance Summary Statistics ¹ (Cont’d)											
Year	Total Original UPB (\$B)	% of Original UPB Prepaid ²	UPB-Weighted Cumulative Default Event % ³	% of Original UPB Remaining ⁴	UPB-Weighted Cumulative Post-Default Event Repurchase % ⁵	% of Original UPB Ever D120 ⁶	% of Original UPB D180 and Pre D120 Credit Event ⁷	UPB-Weighted PreD120 Modification % ⁸	UPB weighted Ever D120% ⁹	UPB Weighted Ever D180 and Pre-D180 Credit Event% ¹⁰	UPB Weighted Cumulative Modification rate ¹¹
1999	6.3	92.1%	1.1%	0.5%	0.1%	2.6%	2.6%	0.5%	1.9%	1.9%	0.0%
2000	6.5	95.5%	1.2%	0.3%	0.2%	2.4%	2.4%	0.4%	1.8%	1.8%	0.0%
2001	7.4	93.7%	1.1%	0.7%	0.2%	2.3%	2.3%	0.5%	1.8%	1.8%	0.0%
2002	7.8	91.3%	1.3%	1.4%	0.1%	2.6%	2.6%	0.7%	2.1%	2.1%	0.1%
2003	8.0	82.2%	2.0%	3.4%	0.1%	3.9%	3.9%	1.3%	3.1%	3.3%	0.1%
2004	8.3	80.3%	3.5%	4.3%	0.2%	6.3%	6.4%	2.4%	5.2%	5.5%	0.1%
2005	8.5	73.9%	6.0%	4.5%	0.2%	9.3%	9.5%	3.9%	7.9%	8.4%	0.4%
2006	9.0	76.5%	9.4%	4.2%	0.4%	13.3%	13.6%	5.6%	11.7%	12.5%	0.6%
2007	9.2	76.1%	10.7%	4.9%	0.8%	15.7%	16.0%	6.9%	13.8%	14.7%	0.7%
2008	10.2	83.7%	4.7%	4.0%	0.3%	8.1%	8.2%	3.8%	7.0%	7.3%	0.3%
2009	10.7	77.6%	0.6%	8.6%	0.0%	1.3%	1.3%	0.5%	1.0%	1.0%	0.0%
2010	10.4	71.0%	0.3%	13.2%	0.0%	0.8%	0.9%	0.3%	0.6%	0.7%	0.0%
2011	10.9	65.2%	0.2%	18.1%	0.0%	0.6%	0.6%	0.3%	0.5%	0.5%	0.0%
2012	11.1	39.9%	0.1%	38.6%	0.0%	0.3%	0.3%	0.2%	0.2%	0.2%	0.0%
2013	10.9	40.5%	0.1%	42.1%	0.0%	0.6%	0.6%	0.3%	0.4%	0.4%	0.0%
2014	11.0	48.9%	0.1%	39.9%	0.0%	0.7%	0.7%	0.4%	0.5%	0.5%	0.0%
2015	11.5	30.9%	0.0%	58.4%	0.0%	0.6%	0.6%	0.4%	0.4%	0.4%	0.0%
2016	12.0	18.2%	0.0%	73.1%	0.0%	0.6%	0.6%	0.4%	0.4%	0.4%	0.0%
2017	11.8	11.7%	0.0%	82.5%	0.0%	0.4%	0.4%	0.2%	0.2%	0.2%	0.0%
2018	11.7	7.7%	0.0%	89.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	.
Total	193.2	58.5%	1.9%	28.8%	0.1%	3.3%	3.4%	1.4%	2.8%	2.9%	0.1%

¹ Reflects monthly performance data June 30, 2019.

² Calculated by dividing the ending UPB of all prepaid loans (Zero Balance Code = 01or 06) by the Total Original UPB. The UPB is determined using the priority in Footnote 12.

³ Calculated by dividing the sum of the default event UPB by the Total Original UPB. The calculation does not include Prepayments or pre-default Repurchases (Zero Balance Code = 01 or 06). The UPB is determined using the priority in Footnote 12.

⁴ Calculated by dividing the ending UPB of all active loans (for which the Zero Balance Code is null in the terminal record) by the Total Original UPB. The UPB is determined using the priority in Footnote 12.

⁵ Calculated by dividing the sum of the post-default event repurchase UPB by the Total Original UPB, for loans that were terminated due to a non-prepayment default event (see Footnote 3) and subsequently repurchased (Zero Balance Code = 02, 03, 09, or 15 AND repurchase flag = ‘Y’). See Footnote 12 for determining the post-default event repurchase UPB

⁶ Calculated by dividing the ending UPB of all loans that reached a delinquency status of D180, including at REO Acquisition, by the Total Original UPB. The UPB is determined using the priority in Footnote 12.

⁷ Calculated by dividing the ending UPB of all loans that reached a delinquency status as of D180, including at REO Acquisition, and loans that were terminated in the dataset due to a non-prepayment credit event (Zero Balance Code = 02, 03, 09, or 15) by the Total Original UPB. The UPB is determined using the priority in Footnote 12.

⁸ Calculated by dividing the sum of the modification UPB by the Total Original UPB. The modification UPB is the current actual UPB as of the month of modification (modification flag = ‘Y’). For repeat modifications, the modification UPB of each is included. The UPB is determined using the priority in Footnote 12.

⁹ Calculated by dividing the ending UPB of all loans that reached a delinquency status of D120, including at REO Acquisition, by the Total Original UPB. The UPB is determined using the priority in Footnote 12.

¹⁰ Calculated by dividing the ending UPB of all loans that reached a delinquency status as of D120, including at REO Acquisition, and loans that were terminated in the dataset due to a non-prepayment credit event (Zero Balance Code = 02, 03, 09, or 15) by the Total Original UPB. The UPB is determined using the priority in Footnote 12.

¹¹ Calculated by dividing the ending UPB of all loans that were modified at or before D120 by the Total Original UPB. Repeat modifications on a loan are not part of the calculation.

¹² If the ending UPB on the terminal record is null, determine the UPB by using the following priority: 1. Use the Current Actual UPB from the previous period; 2. if the Current Actual UPB in the previous period is null, use the Original UPB.

Origination Summary Statistics – Variances (Sample – Full)						
Year	Average Original UPB (\$)	Credit Score	Original Combined Loan-to-Value (CLTV) Ratio	Original Loan-to-Value (LTV) Ratio	Original Debt-to-Income (DTI) Ratio	Weighted Average Coupon (WAC)
1999	-234	0	0	0	0	0
2000	-818	0	0	0	0	0
2001	383	0	0	0	0	0
2002	-434	-1	0	0	0	0
2003	-858	-1	0	0	0	0
2004	-292	0	0	0	0	0
2005	-449	0	0	0	0	0
2006	-47	0	0	0	0	0
2007	141	0	0	0	0	0
2008	238	2	0	0	0	0
2009	-525	0	0	0	0	0
2010	-271	-1	0	0	0	0
2011	-766	-1	0	0	0	0
2012	395	0	0	0	0	0
2013	-476	-1	1	1	0	0
2014	190	0	0	0	0	0
2015	-472	-1	0	0	0	0
2016	-1,564	0	0	0	0	0
2017	-631	0	0	0	0	0
2017	-1,162	0	0	0	0	0
Total	176	0	0	0	0	0

Performance Summary Statistics – Variances (Sample – Full)										
Year	Prepay %	Cumulative Default Event %	Remaining %	Cumulative Post-Default Event Repurchase %	Ever D180 %	D180 and Pre-D180 Credit Event %	Cumulative Modification %	Ever D120%	Ever D120 and Pre-D120 Credit Event%	Pre-D120 Modification rate
1999	0.0%	0.1%	-0.2%	0.1%	0.2%	0.2%	0.0%	0.3%	0.2%	0.0%
2000	-0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2001	0.0%	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%	-0.1%	-0.1%	0.0%
2002	0.1%	-0.2%	0.0%	0.0%	-0.1%	-0.2%	-0.1%	-0.1%	-0.1%	0.0%
2003	-0.2%	0.2%	0.0%	0.0%	0.1%	0.2%	0.1%	0.2%	0.3%	0.0%
2004	0.0%	0.0%	0.1%	0.0%	-0.1%	-0.1%	-0.1%	0.0%	0.0%	-0.1%
2005	0.3%	-0.3%	-0.1%	0.0%	-0.4%	-0.4%	0.0%	-0.3%	-0.3%	0.1%
2006	-0.2%	0.2%	0.0%	0.0%	0.2%	0.3%	0.0%	0.2%	0.2%	0.0%
2007	0.0%	0.1%	-0.1%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%
2008	0.9%	-0.5%	-0.4%	-0.1%	-0.6%	-0.6%	-0.2%	-0.7%	-0.6%	0.0%
2009	-0.7%	0.0%	0.8%	0.0%	-0.1%	-0.1%	-0.1%	0.0%	-0.1%	0.0%
2010	0.8%	0.0%	-0.8%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
2011	1.1%	0.0%	-1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2012	1.1%	0.0%	-1.1%	0.0%	0.0%	0.0%	0.0%	-0.1%	-0.1%	0.0%
2013	2.2%	0.0%	-2.2%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%
2014	1.3%	0.0%	-1.4%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%
2015	0.4%	0.0%	-0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2016	1.1%	0.0%	-1.1%	0.0%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%
2017	0.3%	0.0%	-0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2018	0.0%	0.0%	-0.1%	.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	-0.9%	-0.1%	1.0%	0.0%	-0.1%	0.0%	0.0%	-0.1%	0.0%	0.0%

Performance Summary Statistics – Variances (Sample – Full, Cont’d)									
Year	% of Original UPB Prepaid	UPB-Weighted Cumulative Default Event	% of Original UPB Remaining	UPB-Weighted Cumulative Post-Default Event Repurchase	% of Original UPB D180 and Pre D180 Credit Event	UPB-Weighted Cumulative Modification	UPB weighted Ever D120%	UPB Weighted Ever D120 and Pre-D120 Credit Event%	UPB Weighted Pre-D120 Modification rate
1999	0.6%	0.1%	0.0%	0.0%	0.3%	0.2%	0.0%	0.2%	0.1%
2000	-0.2%	0.1%	0.0%	0.0%	0.1%	0.1%	0.0%	0.1%	0.0%
2001	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%
2002	0.4%	-0.1%	0.1%	0.0%	0.0%	-0.1%	0.1%	0.0%	-0.1%
2003	0.1%	0.1%	0.1%	0.0%	0.3%	0.2%	0.0%	0.1%	0.2%
2004	0.0%	-0.1%	0.1%	0.1%	0.2%	0.2%	-0.1%	0.0%	0.1%
2005	0.1%	-0.3%	0.1%	0.0%	0.0%	0.0%	0.1%	-0.2%	-0.2%
2006	-0.1%	0.2%	0.1%	-0.1%	0.4%	0.4%	0.0%	0.3%	0.3%
2007	0.1%	0.2%	0.0%	0.0%	0.4%	0.4%	0.0%	0.2%	0.3%
2008	1.2%	-0.5%	-0.2%	-0.1%	-0.6%	-0.7%	0.0%	-0.6%	-0.7%
2009	-0.6%	0.0%	0.5%	0.0%	-0.1%	-0.1%	0.0%	-0.1%	-0.2%
2010	0.8%	0.0%	-0.3%	0.0%	0.0%	0.1%	0.0%	0.0%	0.1%
2011	1.0%	0.0%	-0.6%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%
2012	1.4%	0.0%	-1.4%	0.0%	-0.1%	-0.1%	0.0%	0.0%	0.0%
2013	2.7%	0.0%	-1.8%	0.0%	0.1%	0.1%	0.0%	0.1%	0.1%
2014	1.6%	0.0%	-1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2015	0.6%	0.0%	-0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2016	1.0%	0.0%	-1.2%	0.0%	0.1%	0.1%	0.0%	0.1%	0.1%
2017	0.5%	0.0%	-0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2018	0.2%	0.0%	-0.3%	.	0.0%	0.0%	.	0.0%	0.0%
Total	-0.6%	-0.1%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

HARP (Table#1) Dataset – Performance Summary Statistics ¹														
Year	Loan Count	Loan count weighted Credit Score	Loan count weighted Loan to Value %	Loan count weighted Interest Rate %	Loan count weighted -Original Unpaid Principal Balance	Prepay % ²	Cumulative Default Event% % ³	Remaining % ⁴	Cumulative Post-Default Event Repurchase % ⁵	EverD120 and Pre-D120 Modification Rate ⁶	Ever D120 % ⁷	Ever D180 % ⁸	D180 and Pre-D180 Credit Event % ⁹	Cumulative Modification % ¹⁰
2009	71,562	738	91.9	5.2	225,402	71.2%	5.7%	23.1%	0.2%	7.9%	8.8%	7.2%	7.9%	3.5%
2010	156,874	745	92.9	5.0	224,068	66.0%	4.0%	30.0%	0.1%	5.7%	6.3%	5.1%	5.7%	2.6%
2011	136,811	743	96.2	4.8	206,042	58.5%	3.0%	38.5%	0.0%	4.4%	5.0%	4.0%	4.4%	2.2%
2012	342,896	740	111.4	4.1	194,631	42.4%	2.2%	55.4%	0.0%	3.2%	3.7%	2.9%	3.2%	1.5%
2013	228,302	727	106.7	4.1	178,551	34.3%	2.0%	63.7%	0.0%	3.2%	3.8%	3.0%	3.2%	1.6%
2014	51,072	711	100.7	4.6	166,284	30.0%	2.0%	68.0%	0.0%	3.6%	4.4%	3.3%	3.6%	2.2%
2015	28,616	710	98.8	4.2	162,791	20.7%	1.1%	78.2%	0.0%	2.4%	3.2%	2.3%	2.4%	2.0%
2016	14,564	706	97.1	4.0	161,731	13.6%	0.7%	85.8%	0.0%	1.9%	2.9%	1.9%	1.9%	1.9%
2017	5,663	701	96.7	4.3	150,301	7.1%	0.3%	92.6%	0.0%	1.6%	2.3%	1.5%	1.6%	1.1%
2018	1,232	706	96.5	4.7	143,764	2.4%	0.0%	97.7%	0.0%	0.4%	0.8%	0.4%	0.4%	0.2%
Total	1,037,592	735	103.1	4.4	181,356	46.4%	2.7%	50.9%	0.0%	4.8%	4.7%	3.7%	4.0%	2.0%

¹ Reflects monthly performance data through March 31, 2019.

² Count of loans that prepaid in full or were repurchased prior to default (Zero Balance Code = 01 or 06) divided by Loan Count; partial prepayments (curtailments) are excluded from the calculation

³ Count of loans that were terminated in the dataset due to a non-prepayment default event (Zero Balance Code = 02, 03, 09, or 15) divided by Loan Count.

⁴ Count of active loans, divided by Loan Count.

⁵ Count of loans that were terminated in the dataset due to a non-prepayment default event and subsequently repurchased (Zero Balance Code = 02, 03, 09, or 15 AND repurchase flag = ‘Y’), divided by Loan Count

⁶ Count of loans that reached a delinquency status of D120, including at REO Acquisition or were modified prior to delinquency status of D120 divided by loan count.

⁷ Count of loans that reached a delinquency status of D120, including at REO Acquisition, divided by loan count.

⁸ Count of loans that reached a delinquency status of D180, including at REO Acquisition, divided by Loan Count

⁹ Count of loans that reached a delinquency status of D180, including at REO Acquisition, and loans that were terminated in the dataset due to a non-prepayment credit event (Zero Balance Code = 02, 03, 09, or 15) divided by Loan Count

¹⁰ Count of loans that were modified divided by Loan Count. Repeat mods on a loan are not part of the calculation

HARP (Table#2) Dataset – Performance Summary Statistics ¹														
Year	Loan Count	UPB weighted Credit Score	UPB Weighted Loan to Value	UPB weighted Interest Rate	UPB weighted Prepay%[2]	UPB weighted Cumulative Default Event%[3]	UPB weighted Remaining %[4]	UPB weighted Cumulative Post-Default Event Repurchase %[5]	UPB weighted Ever D120 %[6]	UPB weighted Ever D120 and Pre-D120 Credit Event %[9]	UPB weighted Ever D180 %[8]	UPB weighted D180 and Pre-D180 Credit Event %[9]	UPB weighted Cumulative Modification %[10]	UPB weighted Cumulative Loss %[11]
2009	71,562	739	92.1	5.2	65.9%	5.3%	16.1%	0.2%	8.3%	8.6%	6.7%	7.5%	3.5%	1.7%
2010	156,874	745	93.2	5.0	60.8%	3.8%	21.3%	0.1%	6.0%	6.2%	4.8%	5.4%	2.6%	1.1%
2011	136,811	742	96.5	4.8	54.2%	2.8%	27.7%	0.0%	4.7%	4.9%	3.8%	4.2%	2.2%	0.8%
2012	342,896	740	111.6	4.1	38.7%	2.0%	42.5%	0.0%	3.4%	3.5%	2.6%	2.9%	1.5%	0.6%
2013	228,302	726	106.5	4.1	31.7%	1.8%	51.1%	0.0%	3.4%	3.5%	2.6%	2.9%	1.5%	0.5%
2014	51,072	709	100.2	4.6	29.0%	1.8%	56.5%	0.0%	4.1%	4.1%	3.0%	3.3%	2.2%	0.5%
2015	28,616	709	98.0	4.2	20.0%	1.0%	67.7%	0.0%	3.0%	3.0%	2.1%	2.2%	2.0%	0.3%
2016	14,564	704	96.3	4.0	13.2%	0.6%	77.3%	0.0%	2.7%	2.7%	1.7%	1.8%	1.9%	0.1%
2017	5,663	699	95.6	4.3	7.1%	0.3%	86.5%	0.0%	2.2%	2.3%	1.4%	1.5%	1.2%	0.1%
2018	1,232	705	94.9	4.7	2.5%	0.0%	94.4%	0.0%	0.7%	0.7%	0.4%	0.4%	0.1%	0.0%
Total	1,037,592	736	102.7	4.4	44.1%	2.6%	38.2%	0.0%	4.4%	4.5%	3.5%	3.8%	2.0%	0.8%

Additional Information

- For additional information, please visit our Web site at [Freddiemac.com](http://www.freddiemac.com/research/datasets/sf_loanlevel_dataset.html) in the Research Additional Datasets area: http://www.freddiemac.com/research/datasets/sf_loanlevel_dataset.html
- For support with technical issues related to downloading the Single Family Loan-Level Dataset files, please send an email to Support@eMBS.com
- For support with data questions related to the Single Family Loan-Level Dataset, please send an email to SF_Loan_Level_Data_Inquiry@FreddieMac.com

Appendix A: Loan Exclusion Criteria

- The following types of mortgages were excluded from the Single Family Loan-Level Dataset:
 1. Adjustable Rate Mortgages (ARMs), Initial Interest, balloons, and any mortgages with step rates
 2. Government-insured mortgages, including Federal Housing Administration/Veterans Affairs (FHA/VA), Guaranteed Rural Housing (GRH), and HUD-Guaranteed Section 184 Native American mortgages
 3. Home Possible®/Home Possible Neighborhood Solution® Mortgages and other affordable mortgages (including lender branded affordable loan products)
 4. Mortgages delivered to Freddie Mac under alternate agreements
 5. Mortgages for which the documentation is not verified or not waived
 6. Mortgages associated with Mortgage Revenue Bonds purchased by Freddie Mac
 7. Mortgages delivered to Freddie Mac with credit enhancements other than primary mortgage insurance, with the exception of certain lender-negotiated credit enhancements
 8. Mortgages with original loan terms of 420 months or more, and 300 months or less if originated prior to 1/1/2005. If loan was originated on/after 1/1/2005, this exclusion does not apply.

Appendix B: Loan Termination Events

- Loan performance information in the Single Family Loan-Level Dataset includes monthly loan balance, delinquency status and certain workout information up to and including the earliest of the following termination events:
 1. Prepaid or Matured (Voluntary Payoff)
 2. Third Party Sale
 3. Short Sale or Charge Off
 4. Repurchase prior to Property Disposition
 5. REO Disposition
 6. Note Sale