FANNIE MAE AND FREDDIE MAC SINGLE-FAMILY GUARANTEE FEES IN 2013

November 20, 2014

Division of Housing Mission & Goals

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EXECUTIVE SUMMARY

The Housing and Economic Recovery Act of 2008[1] requires that FHFA submit annual reports to Congress on the guarantee fees charged by the Enterprises.[2] The Act requires an analysis of fees by product type, risk class, and the volume of a lender's business. The report must also analyze the costs of providing the guarantee and provide a comparison to the prior year. FHFA issued the first report in 2009.

Among the major findings of this report covering guarantee fees charged in 2013 are:

- Overall guarantee fees have increased gradually since 2009. From 2009 to 2013, fees increased from 22 basis points to 51 basis points. From 2012 to 2013, fees increased from 36 basis points to 51 basis points.
- The difference in gaps between 15- and 30-year fixed-rate loans has been substantially reduced.[3]
- Pricing differences between small sellers and large sellers have been substantially reduced, while the percentage of loans that the Enterprises purchase from small lenders has substantially grown.

FHFA published a Request for Input[4] in June 2014 seeking public input on a number of questions related to guarantee fee policy and implementation. The input period ended on September 8, 2014, and FHFA is currently in the process of reviewing the comments, which can be reviewed on our website at https://www.fhfa.gov/AboutUs/Contact/Pages/input-submissions.aspx.

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[1] Housing and Economic Recovery Act of 2008, Public Law 110-289, 122 Stat 2654 (2008), Section 1601
[2] Prior guarantee fee reports may be found at http://www.fhfa.gov/DataTools/Pages/Data-Reports.aspx.
[3] The difference between actual guarantee fees charged and the expected cost of providing the guarantee is referred to as a gap.
[4] http://www.fhfa.gov/PolicyProgramsResearch/Policy/Documents/GfeeRFI060514F.pdf

Description of Guarantee Fees

Fannie Mae and Freddie Mac acquire single-family loans from lenders and securitize them in the form of mortgage-backed securities (MBS). Although the Enterprises hold some MBS on their balance sheets, most are held by investors. For investor-held MBS, the Enterprises guarantee timely payment of principal and interest to the investor.[5] As compensation for providing this guarantee, the Enterprises charge lenders guarantee fees. Although the Enterprises are always the ultimate guarantors, they may choose to retain the credit risk on their own balance sheets or, as part of their credit risk-transfer programs, pay private entities to bear some of the credit risk.

The Enterprises charge guarantee fees to cover three types of costs that they expect to incur in providing their guarantee: (1) the costs that the Enterprises expect to bear, on average, as a result of failure of borrowers to make their payments; (2) the costs of holding economic capital to protect against potentially much larger, unexpected losses as a result of failure of borrowers to make their payments; and (3) general and administrative expenses. Collectively these three costs are the estimated cost of providing the credit guarantee.[6]

Of these three components, cost of capital is by far the most significant. A firm bearing mortgage credit risk needs enough capital to survive a stressful credit environment, such as occurred during the recent housing market crisis. The cost of holding capital to protect against unexpected losses is the amount of capital required multiplied by the target rate of return on that capital. While the Enterprises do not currently have material equity capital, FHFA has asked them to set guarantee fees consistent with the amount of capital they would need to support their guarantee businesses if they were financially healthy and retained capital.

The Enterprises use proprietary models to estimate the costs they expect to bear and the amount of capital that needs to be set aside to cover unexpected losses (see items 1 and 2 above). The models are built around a few key assumptions that make material differences in the estimated cost of guaranteeing a mortgage. Those assumptions include:

- House price appreciation
- House price volatility

[5] For its ARM participation certificates (PCs), Freddie Mac guarantees the timely payment of interest and the *ultimate* payment of principal.
[6] Estimated costs reflect the benefit of private mortgage insurance and other forms of credit enhancement, where applicable.

- Economic stress paths
- Target rate of return on capital

In addition to the macroeconomic variables, the main characteristics that determine the estimated cost of guaranteeing a single-family mortgage are:

- Borrower credit history
- Debt-to-income ratio
- Loan-to-value ratio
- Mortgage insurance coverage
- Loan purpose (purchase, rate-term refinance, cash-out refinance)
- Occupancy status (primary home, investor)
- Property type (single-family, condominium, 2-4 unit, manufactured housing)
- Product type (fixed, adjustable rate, term)
- Mortgage interest rate

Using the model results, the Enterprises calculate a "gap." A gap is the difference between the actual fee charged on a loan and the estimated cost of providing the credit guarantee (items 1, 2, and 3 above), and is an important tool used by the Enterprises to assess the adequacy of guarantee fees. If the gap on a loan is positive or zero, the Enterprise expects to achieve at least its target rate of return on capital.[7] If the gap is negative, the Enterprise may still make money on the loan without reaching its target rate of return.

Another important consideration in determining guarantee fees is the lending environment. For example, lenders could choose to deliver loans to Fannie Mae or Freddie Mac, retain loans in portfolio, or securitize loans in the private-label securities market. The Federal Housing Administration (FHA) is also a source of loans associated with borrowers generally making lower downpayments and having lower credit scores.

[7] Models are updated over time. Thus, one must exercise caution in comparing gaps from different time periods.

Timeline of Key Guarantee Fee Changes Since 2008

Faced with deteriorating conditions in the housing and mortgage markets, the Enterprises implemented a fee increase in March 2008 in order to better align guarantee fees with mortgage credit risk. Specifically, overall fees were increased, upfront guarantee fees were introduced that were based on a borrower's downpayment and credit score, and a 25-basis point "adverse market fee" was introduced. Prior to this change, guarantee fees had been primarily based on product type, rather than loan attributes.

Later in 2008, the Enterprises refined their loan-to-value (LTV) and credit score-based upfront charges and other fee components, and in subsequent years gradually raised fees to better reflect credit risk.

In 2011, Congress passed the Temporary Tax Cut Continuation Act (the Act) to fund an extension of the payroll tax cut. In April 2012, at the direction of FHFA and consistent with the Act, the Enterprises implemented an increase of 10 basis points in ongoing fees for all loans. Pursuant to the Act, this fee accrues to the Department of the Treasury and not to the Enterprises.

Later in 2012, FHFA again directed the Enterprises to increase their guarantee fees. This increase was intended to encourage more private sector participation, reduce the Enterprises' market share, and more fully compensate taxpayers for bearing mortgage credit risk. The 10-basis point average increase was allocated in a way that reduced cross subsidies from 15-year to 30-year loans and reduced lender-based fee differences between small lenders and large lenders. This change was implemented in December 2012.

The agency announced another guarantee fee change in December 2013 that would have increased ongoing fees by 10 basis points, adjusted upfront fees charged to borrowers in different risk categories, and removed the 25-basis point adverse market charge for all but four states. The increase was to be phased in during 2014. In January 2014, FHFA suspended implementation of the change pending further review. As part of this review, FHFA published a Request for Input[8] in June 2014 to seek public input on a number of questions related to guarantee fee policy and implementation. Specifically, FHFA invited responses to 12 questions. These questions were related to, among other things:

- What goals should FHFA further in setting guarantee fees?

[8] http://www.fhfa.gov/PolicyProgramsResearch/Policy/Documents/GfeeRFI060514F.pdf

- How should required guarantee fees be calculated? For example, how should required economic capital be determined, and what should the target return on that capital be?
- How should the use of risk-based guarantee fees be balanced with housing mission requirements?
- How should competitive issues be considered when setting guarantee fees? For example, guarantee fee increases may cause lenders to retain more loans on their balance sheets, sell loans into private label securities, or securitize them through Ginnie Mae/FHA.

The public input period ended on September 8, 2014. FHFA is considering the public input as it formulates future guarantee fee policies.

Table 1: Chronology of Changes in Guarantee Fees 2008-Present

Event Date	Change
March 2008	Overall fee increase implemented. Upfront fees introduced based on LTV and credit score. 25-basis point upfront adverse market charge introduced.
Late 2008 through 2011	Fees gradually raised. Average fees in 2011 were approximately 5 basis points higher than in 2009. Upfront fee grids (e.g., the LTV/credit score grid) gradually refined.
April 2012	Enterprises implement a 10-basis point ongoing fee increase consistent with the Temporary Tax Cut Continuation Act of 2011. This fee accrues to the Department of the Treasury and not to the Enterprises.
December 2012	FHFA directs Enterprises to implement an additional 10-basis point average increase. FHFA directs Enterprises to raise 30-year fees by more than 15-year fees to better align returns across both products. FHFA directs Enterprises to make changes intended to increase fees by more for larger lenders in order to remove fee concessions for volume of deliveries.
December 2013	FHFA directs Enterprises to increase ongoing fees by 10 basis points. FHFA directs Enterprises to change upfront fees charged to borrowers in different risk categories. FHFA directs Enterprises to remove 25-basis point adverse market charge for all but four states.
January 2014	FHFA suspends implementation of the December 2013 changes pending further review.

Guarantee Fee Policies and 2013 Outcomes

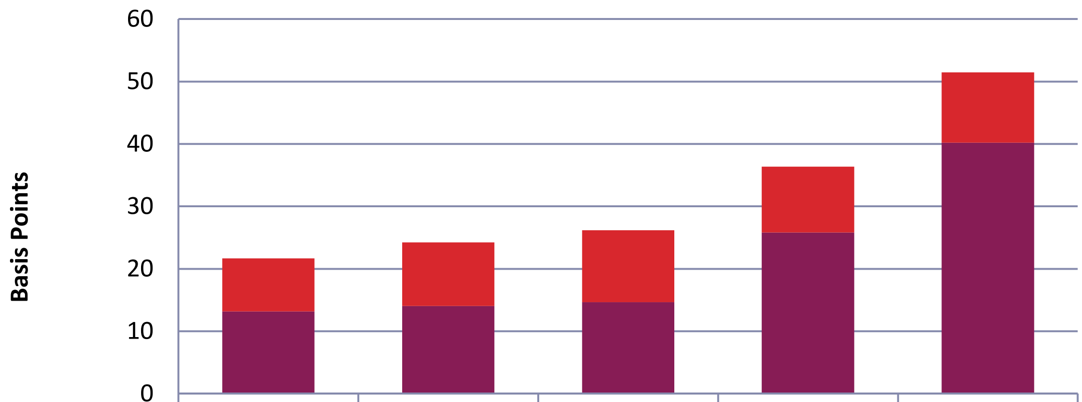
I. Trends in Overall Average Guarantee Fees

There are two types of guarantee fees: ongoing and upfront. Ongoing fees are collected each month over the life of a loan. Upfront fees are one-time payments made by lenders when a loan is acquired by an Enterprise. Fannie Mae refers to upfront fees as loan level pricing adjustments and Freddie Mac refers to them as delivery fees. Both ongoing and upfront fees compensate the Enterprises for providing credit guarantees. To date, the Enterprises have relied primarily on upfront fees to reflect differences in risk across loans as opposed to ongoing fees.

Figure 1 shows average estimated single-family guarantee fee levels from 2009 through 2013. (All guarantee fee data in this report correspond to loans delivered during the relevant time period). Upfront fees are converted to an ongoing basis for ease of comparison.[9] The guarantee fees have more than doubled, up from an average of 22 basis points in 2009 to 51 basis points in 2013. The upward trend in guarantee fees over time reflects implementation of FHFA's policy to gradually increase fees, changes initiated by the Enterprises, and changes in the mix of loans purchased and guaranteed by the Enterprises that are subject to different upfront fees based on risk characteristics. The largest increases occurred from 2011 to 2012 (to 26 basis points ongoing and 11 basis points upfront) and from 2012 to 2013 (to 40 basis points ongoing and 11 basis points upfront); these changes are primarily the result of the two increases implemented in 2012. (Since the figure shows only calendar year averages, and given that the increases can be implemented gradually over many months, there is a lag from the time a guarantee fee change is implemented to the time it is fully reflected in the data.)

[9] Upfront fees are converted to annual fees by dividing the upfront fee by the average (or expected) life of the loan. For example, a 25-basis point upfront fee annualizes to a 5-basis point ongoing fee given an expected life of the loan of 5 years.

Figure 1: Average Estimated Single-Family Guarantee Fees, 2007-2013



	2009	2010	2011	2012	2013
Upfront Fee	9	10	12	11	11
Ongoing Fee	13	14	15	26	40
Total	22	24	26	36	51

II. Changes in Guarantee Fees by Product and Lender Types

Through 2013, FHFA pursued a policy to increase the use of risk-based pricing across certain borrower/loan characteristics. The latter of the two 2012 increases implemented this policy in two distinct ways. To evaluate the implementation of these policies, we present gap data. A gap is the difference between the actual fee charged on a loan and the estimated (future) cost of providing the credit guarantee.[10] It is important to note that gaps are based on models that are revised over time. Thus, caution should be exercised when using gaps to identify time trends. Comparing gaps across various types of loans at the same point in time, however, is not as problematic. Finally, it should be noted that differences in gaps between the Enterprises will exist as a result of different pricing model assumptions.

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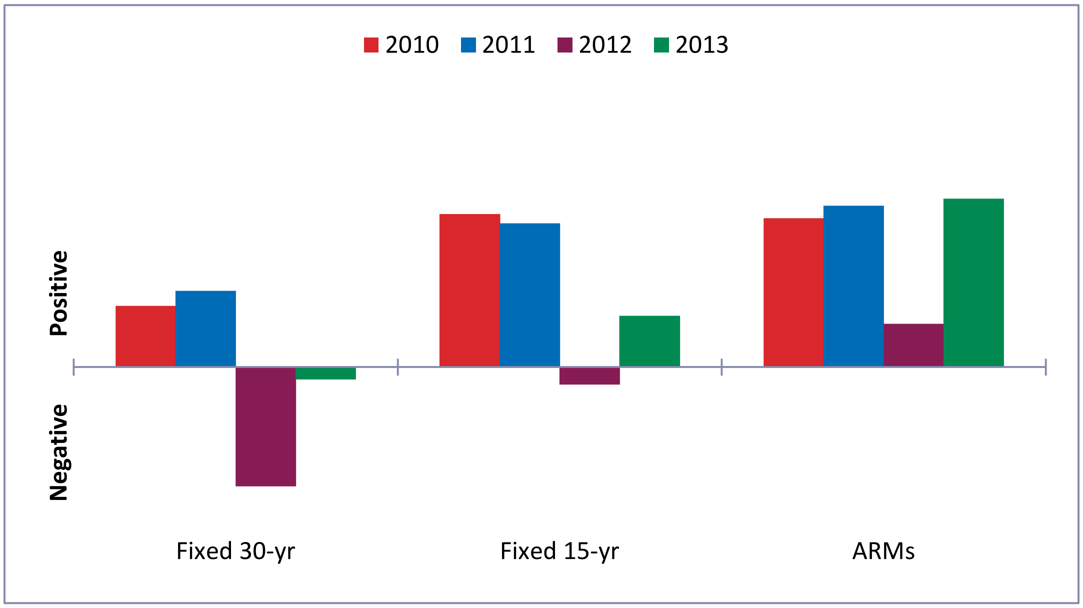
[10] A negative gap does not necessarily mean that an Enterprise expects to incur a loss on a set of loans, but rather that it expects, according to its model, to earn less than its targeted return on capital (assuming the Enterprises held that amount of capital).

Gap data depicted in Figure 2[11] indicate that from 2010 through 2012, guaranteeing 15-year loans was expected to be more profitable (or less costly) than guaranteeing 30-year loans. The guarantee fee change implemented in December 2012 sought to remove this difference by raising guarantee fees by more on 30-years loans than on 15-year loans. Figure 3 indicates that 30-year guarantee fees increased by 17 basis points in 2013, whereas 15-year fees increased by only 9 basis points. Figure 2 shows that differences between 15- and 30-year loans diminished in 2013, although guaranteeing 15-year loans remained somewhat more profitable for the Enterprises than guaranteeing 30-year loans. (As discussed previously, model changes and adjustments can also impact the behavior that gaps exhibit over time.)

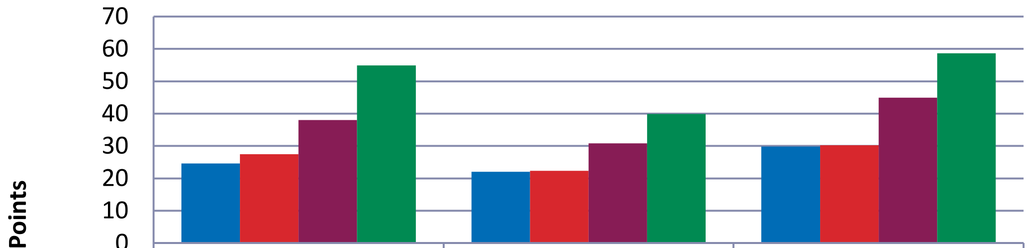
Figure 2 also shows that the sizeable negative gap exhibited by 30-year fixed rate loans in 2012 largely disappeared in 2013. This is partly due to the fact that the full impact of the December 2012 guarantee fee increase was not realized until 2013.

Figure 2: Estimated Single-Family Guarantee Fee Gap by Product Type 2010-2013



[11] The y-axis scale in Figure 2 is omitted so as not to disclose proprietary data.

Figure 3: Estimated Single-Family Guarantee Fee by Product Type 2009-2013



	Fixed 30-yr	Fixed 15-yr	ARMs
2010	25	22	30
2011	28	22	30
2012	38	31	45
2013	55	40	59

With the December 2012 increase, FHFA also sought to reduce pricing differences between smaller lenders and larger lenders. Lenders deliver loans to the Enterprises in two primary ways. First, a lender may deliver a pool of loans to an Enterprise and receive a guaranteed MBS in return. This method is referred to as an MBS swap. Many lenders subsequently sell the MBS they receive this way in the secondary market. In the second method, referred to as a cash window execution, the lender sells a pool of loans directly to the Enterprise for cash. Typically, the Enterprise will then securitize the loans in a guaranteed MBS and sell this security in the market. Because of the smaller size of their pools and operational limitations, smaller lenders tend to use the cash window whereas larger lenders tend to engage in MBS swaps.

The December 2012 increase raised ongoing guarantee fees for swap execution by more than those for cash window execution. This resulted, on average, in fees paid by small lenders increasing less than those paid by larger lenders. As the gap analysis in Figure 4 shows, in 2013 the Enterprises expected to profit slightly less on small lender loans than on large lender loans, as opposed to the prior three years for which the opposite was true. Or equivalently, on a risk-adjusted basis, small lenders paid slightly less to guarantee a loan in 2013 than did large lenders. For this analysis, lenders are categorized by dollar volume of loans sold to the Enterprises. The five lenders with the largest dollar volume sold are categorized as extra-large (XL); the next 10 lenders are categorized as large (L); the next 10 lenders are categorized as medium (M); the next 75 lenders are categorized as small (S); and all lenders not ranked in the top 100 are categorized as extra-small (XS). Table 2 shows that the percentage of loans that the Enterprises purchase from small lenders grew substantially in 2012 and continued to increase in 2013.

Figure 4: Estimated Single-Family Guarantee Fee Gap, by Acquisition-Volume Group 2010-2013

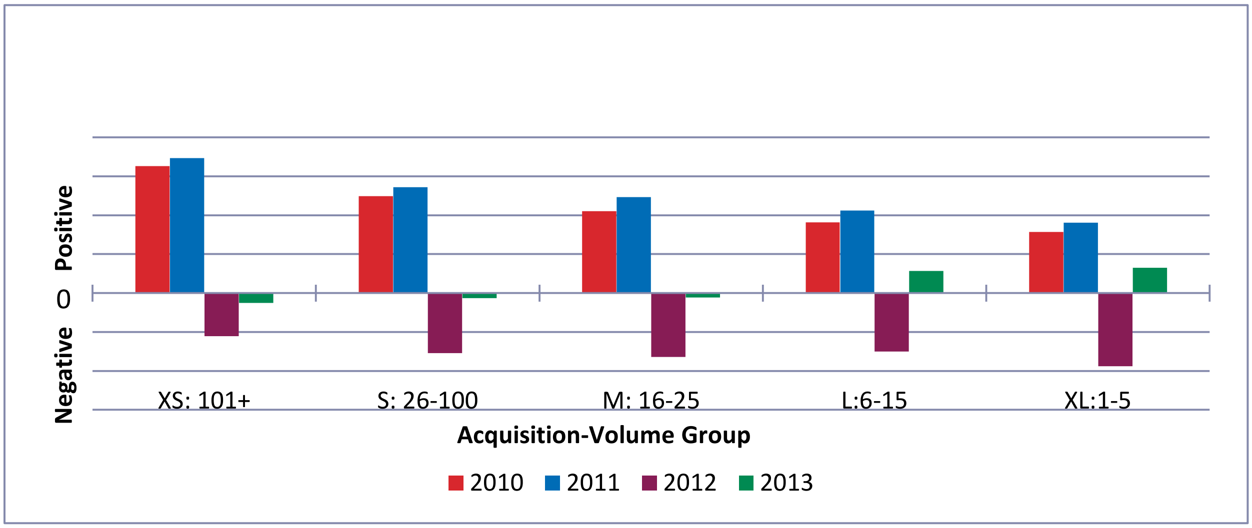


Table 2: Single-Family Acquisitions by Acquisition-Volume Group 2010-2013[1]
(share of total unpaid principal balance)

	XL 1-5	L 6-15	M 16-25	S 26-100	XS 101+
2010	60%	18%	4%	6%	8%
2011	58%	22%	4%	8%	8%
2012	49%	19%	6%	10%	16%
2013	49%	17%	6%	10%	19%
Change from 2012	0%	-2%	0%	0%	3%

[1] Based on study population for standard loans for 2010-2013

The appendix that follows this section presents additional tables and graphs that disaggregate the fees across various dimensions.

Appendix: Detailed Presentation and Analysis of 2013 Fee Changes

Under data collection procedures established by FHFA in accordance with section 1601 of HERA, the Enterprises submit loan group data on a regular basis. Quarterly data were submitted for 2007 through 2010 and monthly data for 2011 through 2013. For each lender, the Enterprises provide guarantee fee data by loan type. Within each loan type, the data are segmented into categories based on LTV ratios and borrower credit scores.

This section uses data on single-family mortgages acquired in 2009 through 2013 to present the average guarantee fee charged by the Enterprises as well as how the fees charged varied by product type, loan purpose, risk classification, and volume of mortgages delivered by lenders. Prior year data presented in this report may not be consistent with data for the same year in previous FHFA reports due to lender updates, model updates, and other revisions of data by the Enterprises. The analysis uses economic data relevant to the concepts summarized above rather than accounting data prepared in conformance with GAAP. To avoid public disclosure of protected information, the analysis presents Enterprise data on a combined basis and discloses certain information in a more limited manner.

The majority of single-family mortgages acquired by Fannie Mae and Freddie Mac in 2012 and 2013 were eligible under the Enterprises' standard underwriting guidelines and are referred to in this report as "standard loans." In addition to those mortgages, the Enterprises acquired a significant volume of loans under the Home Affordable Refinance Program (HARP) as well as a small volume of other mortgages eligible under flexible refinance programs that have the same objective as HARP and have similar underwriting standards. This appendix focuses on guarantee fees charged on standard loans.

The remainder of this appendix presents tables and graphs derived from the data described above.

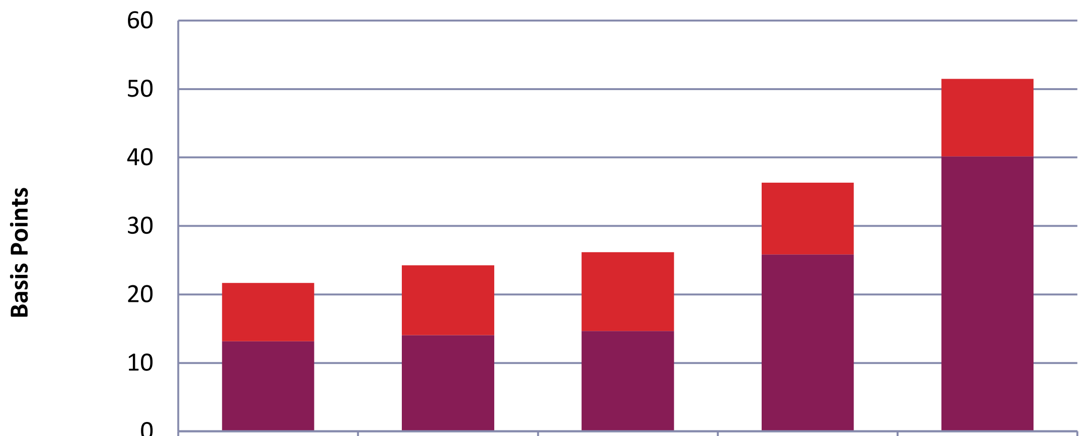
Table A-1: Study Population 2009-2013

	Dollars in Millions	% of Total	Number of Loans	% of Total
		2009		
Standard	$1,072,280	96%	4,923,656	96%
HARP	$46,017	4%	190,658	4%
Flexible Refinance	$4,400	0%	20,898	0%
Total	$1,122,696	100%	5,135,212	100%
		2010		
Standard	$847,824	88%	3,963,913	89%
HARP	$101,436	11%	429,096	10%
Flexible Refinance	$11,668	1%	55,662	1%
Total	$960,928	100%	4,448,671	100%
		2011		
Standard	$758,555	88%	3,604,000	88%
HARP	$94,787	11%	435,276	11%
Flexible Refinance	$7,808	1%	42,110	1%
Total	$861,150	100%	4,081,386	100%
		2012		
Standard	$1,013,598	81%	4,696,509	80%
HARP	$216,140	17%	1,070,626	18%
Flexible Refinance	$16,231	1%	93,225	2%
Total	$1,245,968	100%	5,860,360	100%
		2013		
Standard	$942,460	83%	4,451,699	81%
HARP	$161,312	14%	887,178	16%
Flexible Refinance	$28,442	3%	175,905	3%
Total	$1,132,214	100%	5,514,782	100%

Source: Federal Housing Finance Agency based on data from Fannie Mae and Freddie Mac

- Flexible Refinance mortgages increased in both unpaid principal balance and in number of loans from 2012 to 2013, while HARP and standard mortgages decreased in both unpaid principal balance and number of loans.

Figure A-1: Average Estimated Single-Family Guarantee Fees, 2007-2013



	2009	2010	2011	2012	2013
Upfront Fee	9	10	12	11	11
Ongoing Fee	13	14	15	26	40
Total:	22	24	26	36	51

- The average total guarantee fee for standard loans increased from 36 basis points in 2012 to 51 basis points in 2013; this change was entirely due to an increase in ongoing fees.
- The average total guarantee fee for standard loans increased from 22 basis points in 2009 to 51 basis points in 2013; this change was primarily due to an increase in ongoing fees.

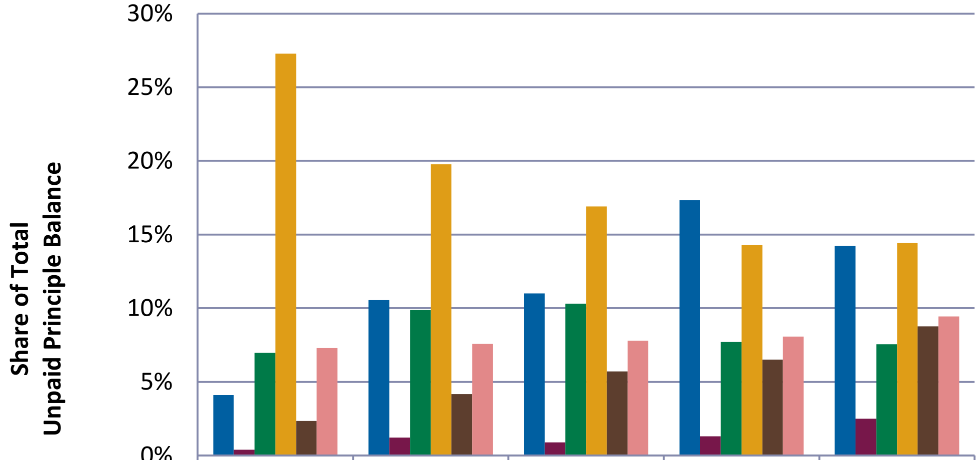
Table A-2: Product Type and Risk Class Profile, Study Population, 2010-2012*

Product Type	2010	2011	2012	2013	Change from 2012
Fixed-Rate 30-year Mortgages	64%	58%	63%	68%	5%
Fixed-Rate 15-year Mortgages	24%	27%	26%	23%	-2%
Other Fixed-Rate Mortgages	6%	7%	6%	5%	-2%
Adjustable-Rate Mortgages	6%	8%	4%	3%	-1%
	100%	100%	100%	100%	
Loan Purpose					
Purchase	25%	26%	24%	35%	11%
Regular refinance	53%	55%	58%	48%	-11%
Cash-Out Refinance	22%	19%	18%	17%	0%
	100%	100%	100%	100%	
Credit Score					
>=720	86%	85%	87%	82%	-5%
660 – 719	13%	13%	12%	16%	4%
<660	2%	2%	1%	2%	1%
	100%	100%	100%	100%	
Loan-to-Value Ratio					
0 – 70 Percent	51%	50%	48%	42%	-6%
70.1 – 80 Percent	43%	41%	40%	41%	0%
80.1 – 90 Percent	4%	5%	6%	8%	2%
>90 Percent	2%	4%	6%	9%	4%
	100%	100%	100%	100%	
*Includes Standard, HARP, and Flexible Refinance Loans (share of total unpaid principal balance)					

Source: Federal Housing Finance Agency based on date from Fannie Mae and Freddie Mac

- "Fixed-rate 30-year mortgages" was the only mortgage category to increase in unpaid principal balance (UPB) percentage in 2013, from 63 percent to 68 percent.
- Cash-out refinance loans stayed consistent in UPB share in 2013, while purchase loans increased almost 11 percent in UPB share to 35 percent and regular refinance loans decreased by 11 percent to 48 percent.
- The percentages of loans made with credit scores less than 720 and LTVs greater than 80 percent have increased.

Figure A-2: Risk Layering Profile 2009-2013:
(Includes Standard, HARP, and Flexible Refinance Loans)



	2009	2010	2011	2012	2013
HARP Refinances	4%	11%	11%	17%	14%
Flexible Refinances	0%	1%	1%	1%	3%
Jumbo Conforming Loans	7%	10%	10%	8%	8%
Refinances with Cash Out	27%	20%	17%	14%	14%
Investor Loans	2%	4%	6%	7%	9%
Condominiums and Cooperatives	7%	8%	8%	8%	9%

Note: Jumbo conforming loans have principal amounts above the general loan limit of $417,000 and are eligible for Enterprise guarantees. The higher limits for these loans apply to high cost areas.

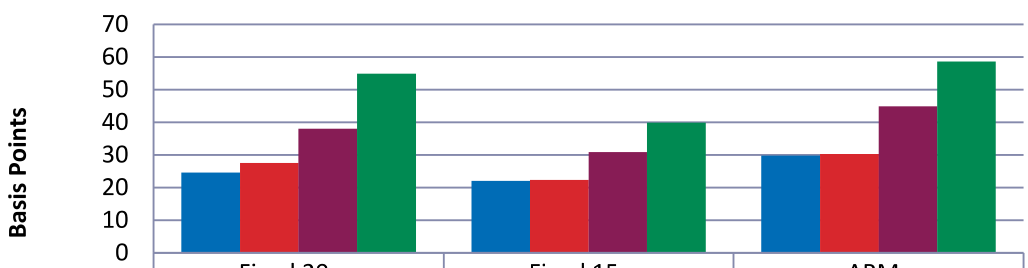
- HARP refinances fell 3 percent to a share of 14 percent in 2013.

Table A-3: Single-Family Acquisitions by Product Type 2009-2013[1]
(share of total unpaid principal balance)

	Fixed 30-yr	Fixed 15-yr	All ARM	Other
2009	80%	15%	2%	3%
2010	64%	24%	6%	6%
2011	58%	27%	8%	7%
2012	63%	26%	4%	7%
2013	68%	23%	3%	6%
Change from 2012	5%	-3%	-1%	-1%

- In 2013, as interest rates on 30-year loans remained near historical lows, most consumers continued to select the 30-year fixed-rate option when choosing among mortgage products.

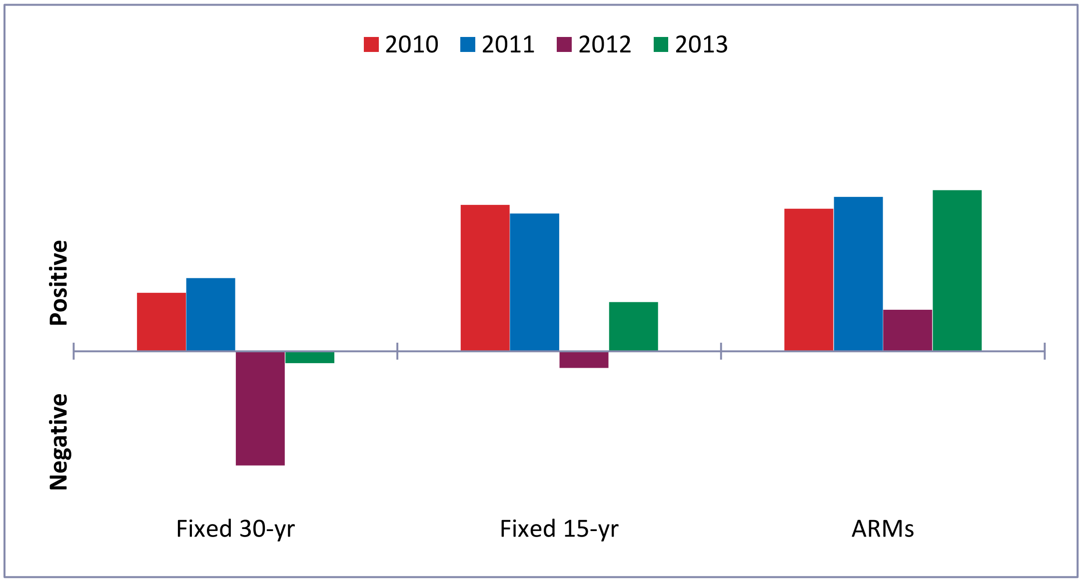
Figure A-3: Estimated Single-Family Guarantee Fee by Product Type 2009-2013



	Fixed 30-yr	Fixed 15-yr	ARMs
2010	25	22	30
2011	28	22	30
2012	38	31	45
2013	55	40	59

- From 2012 to 2013, the average guarantee fee increased by 17 basis points for 30-year fixed-rate mortgages, 9 basis points for 15-year fixed-rate mortgages, and 14 basis points for ARMs.

Figure A-4: Estimated Single-Family Guarantee Fee Gap by Product Type 2010-2013



- Due, at least in part, to the late 2012 guarantee-fee change, the difference in profitability of 15-year loans versus 30-year loans narrowed in 2013.
- Gaps for 2013 Enterprise purchases are close to break-even.

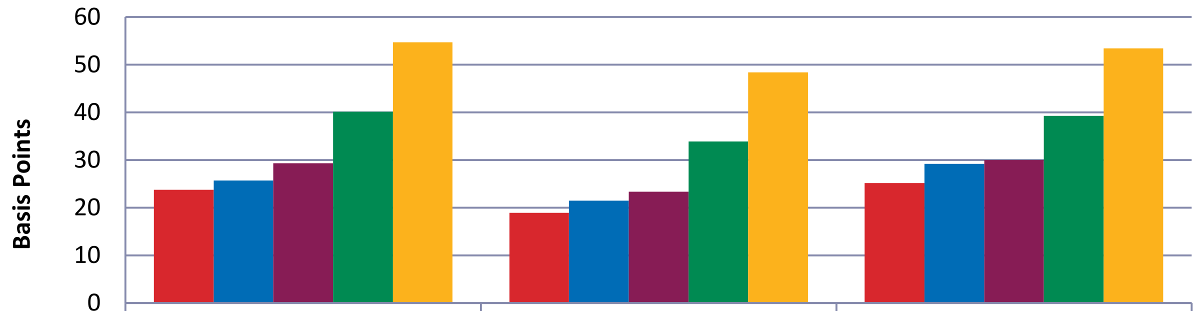
Table A-4: Single-Family Acquisitions by Loan Purpose 2009-2013[1]
(share of total unpaid principal balance)

	Purchase	Rate-Term Refinance	Cash-Out Refinance
2009	20%	51%	29%
2010	25%	53%	22%
2011	26%	55%	19%
2012	24%	58%	18%
2013	35%	48%	17%
Change from 2012	11%	-10%	-1%

(1) Based on standard loans for 2009-2013. Years do not total to 100% because loans with other purposes are not shown in this table

- Two factors contributed to a decline in refinances in 2013. First, most homeowners who had the opportunity to benefit from refinancing their mortgages had already refinanced. Second, interest rates increased mid-year, making refinancing less attractive.

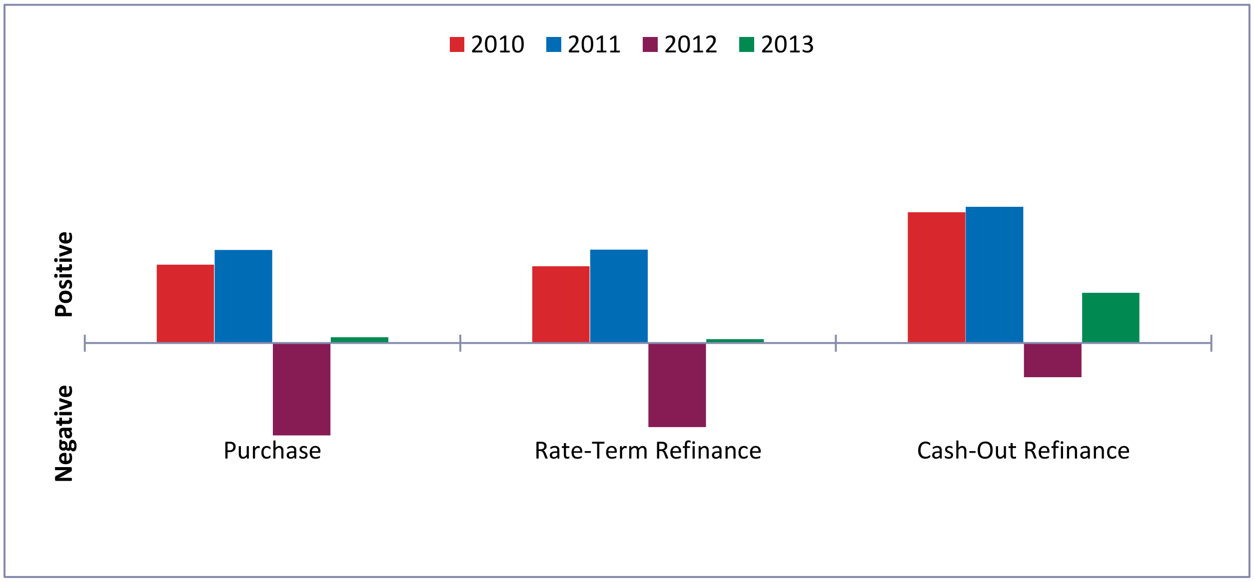
Figure A- 5: Estimated Single-Family Guarantee Fee by Loan Purpose 2009-2013



	Purchase	Rate-Term Refinance	Cash-Out Refinance
2009	24	19	25
2010	26	21	29
2011	29	23	30
2012	40	34	39
2013	55	48	53

- From 2012 to 2013, the average guarantee fee increased by 15 basis points for purchase loans, 14 basis points for rate-term refinance loans, and 14 basis points for cash-out refinance loans.

Figure A-6: Estimated Single-Family Guarantee Fee Gap by Loan Purpose 2010-2013



- Gaps for 2013 purchase and rate-term refinance loans are close to break-even.

Table A-5: Single-Family Acquisitions by Credit Score 2009-2013[1]
(share of total unpaid principal balance)

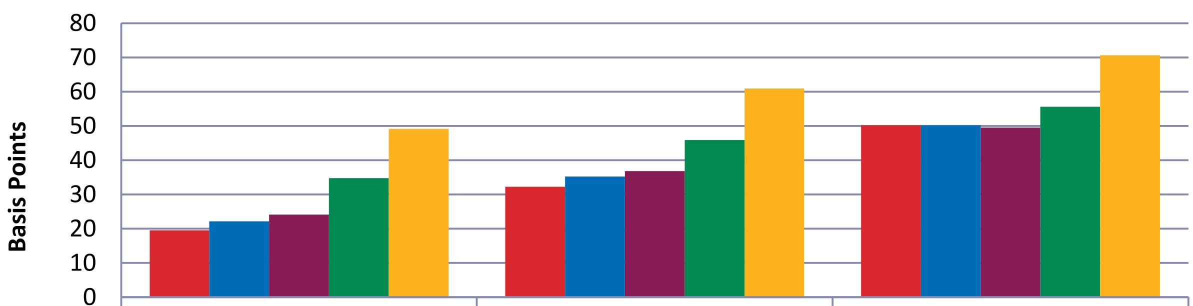
	>=720	660 - 719	<660
2009	85%	13%	2%
2010	86%	13%	2%
2011	85%	13%	2%
2012	87%	12%	1%
2013	82%	16%	2%
2012 to 2013 Change	-5%	4%	1%

[1] Based on standard loans for 2009-2013

Source: Federal Housing Finance Agency based on data from Fannie Mae and Freddie Mac

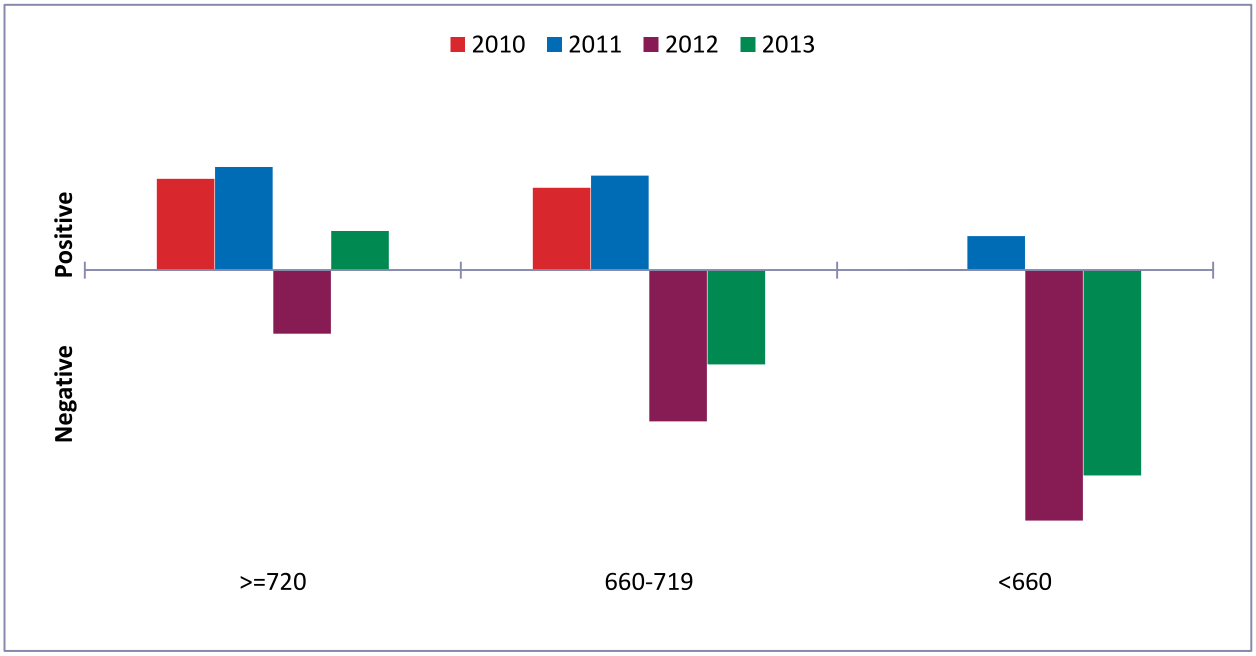
- Declines in average credit score are a reflection of the change in portfolio mix. Refinancing borrowers tend to have higher credit scores than purchase money borrowers, so the decline in refinances in 2013 led to fewer borrowers with credit scores above 720.

Figure A-7: Estimated Single-Family Guarantee Fee by Credit Score 2009-2013



	>=720	660-719	<660
2009	20	32	50
2010	22	35	50
2011	24	37	50
2012	35	46	56
2013	49	61	71

Figure A-8: Estimated Single-Family Guarantee Fee Gap by Credit Score 2010-2013



- For 2013, the Enterprises expected to achieve at least their target rate of return on loans with >=720 credit scores and expected to earn less than their target rate of return on loans with <720 credit scores.

Table A-6: Single-Family Acquisitions by Loan-to-Value Ratio 2009-2013[1]
(share of total unpaid principal balance)

	0 - 70	70.1 - 80	80.1 - 90	>90
2009	52%	42%	5%	2%
2010	51%	43%	4%	2%
2011	50%	41%	5%	4%
2012	48%	40%	6%	6%
2013	42%	41%	8%	9%
2012 to 2013 Change	-6%	1%	2%	3%
(1) Based on standard loans for 2009-2013				

Source: Federal Housing Finance Agency based on data from Fannie Mae and Freddie Mac

- Increases in average loan-to-value ratios are a reflection of the change in portfolio mix. Refinancing borrowers tend to have lower loan-to-value ratios than purchase money borrowers, so the decline in refinances led to a fewer borrowers with loan-to value ratios below 70.

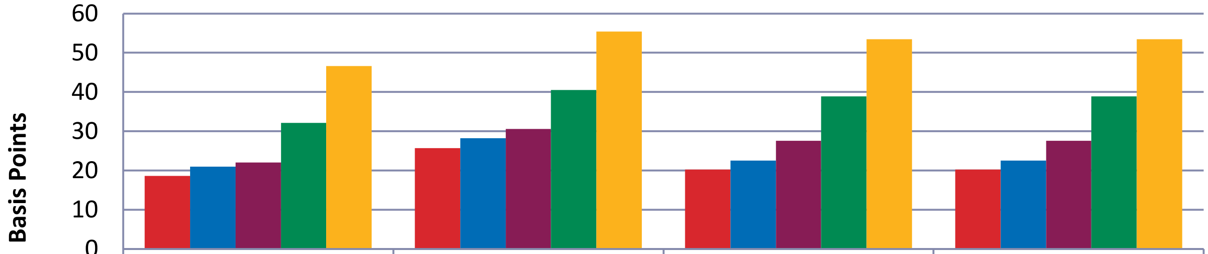
Table A-7: Mortgage Insurance Coverage Levels in 2012 (Standard Loans)

30-Year Loan for $100,000 Home			
LTV Ratio	**Loan Amount**	**MI Coverage**	**Protection at Origination**
80	$80,000	0%	$20,000
85	$85,000	12%	$25,200
90	$90,000	25%	$32,500
95	$95,000	30%	$33,500

Source: Federal Housing Finance Agency based on Fannie Mae Seller Guide and Freddie Mac Seller Guide

- Mortgages with loan-to-value ratios greater than 80 percent receive 3rd party coverage from mortgage insurers. The value of this coverage is included in model guarantee fee (and hence gap) calculations.

Figure A-9: Estimated Single-Family Guarantee Fee by Loan-to-Value Ratio 2009-2013



	0-70	70.1-80	80.1-90	>90
2009	19	26	20	20
2010	21	28	23	23
2011	22	31	28	28
2012	32	40	39	39
2013	47	55	53	53

Figure A-10: Estimated Single-Family Guarantee Fee Gap by Loan to Value Ratio 2010-2013

- In 2013, the Enterprises expected to achieve at least their target rate of return on loans with LTVs less than 80 and less than their target rate of return on loans with LTVs greater than 80.

Table A-8 Number of Lenders by Enterprise 2010-2013

	2010	2011	2012	2013
Fannie Mae	1,050	1,040	1,118	1,173
Freddie Mac	1,029	993	1,019	1,055

Source: Federal Housing Finance Agency based on data from Fannie Mae and Freddie Mac

- In 2013, both Fannie Mae and Freddie Mac saw increases in their number of lenders.

Table A-9: Single-Family Acquisitions by Acquisition-Volume Group 2010-2013[1]
(share of total unpaid principal balance)

	XL 1-5	L 6-15	M 16-25	S 26-100	XS 101+
2010	60%	18%	4%	6%	8%
2011	58%	22%	4%	8%	8%
2012	49%	19%	6%	10%	16%
2013	49%	17%	6%	10%	19%
Change from 2012	0%	-2%	0%	0%	3%

[1] Based on study population for standard loans for 2010-2013.

- The percent of loans sold to the Enterprises by XL lenders decreased from 60 percent in 2010 to 49 percent in 2013.
- The percent of loans sold to the Enterprises by XS lenders increased from 8 percent in 2010 to 19 percent in 2013.

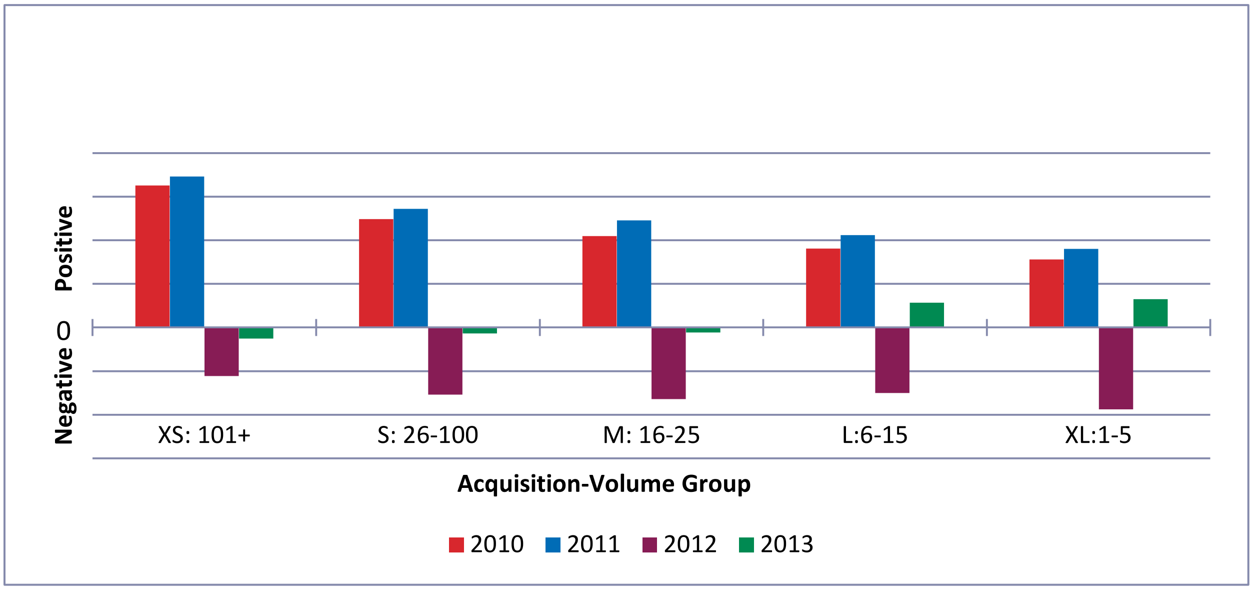
Table A-10: Estimated Single-Family Guarantee Fees by Acquisition-Volume Group 2010-2013

Acquisition Volume Group			Guarantee fees		
			Ongoing	Upfront	Total
2010	XL	1 – 5	13	10	23
	L	6 – 15	14	11	25
	M	16 – 25	15	10	25
	S	26 – 100	17	10	27
	XS	100+	20	10	31
	XL – XS Difference		(7)	(0)	(8)
2011	XL	1 – 5	14	11	25
	L	6 – 15	14	12	26
	M	16 – 25	16	12	27
	S	26 – 100	17	12	29
	XS	100+	21	12	33
	XL – XS Difference		(7)	(1)	(8)
2012	XL	1 – 5	24	11	34
	L	6 – 15	25	10	35
	M	16 – 25	26	11	37
	S	26 – 100	27	10	38
	XS	100+	30	11	40
	XL – XS Difference		(6)	0	(6)
2013	XL	1 – 5	40	10	51
	L	6 – 15	39	12	51
	M	16 – 25	41	11	52
	S	26 – 100	40	11	51
	XS	100+	40	12	53
	XL – XS Difference		(0)	(2)	(2)

Source: Federal Housing Finance Agency based on data from Fannie Mae and Freddie Mac

- In 2010 and 2011, large-volume lenders paid lower fees than small-volume lenders. In 2012 and 2013, the fee differential narrowed.
- In 2013 ongoing fees were consistent across lender size – a significant shift from 2012.
- For all years, upfront fees were close to the same for all lenders; the small differences primarily reflect a different mix of credit scores and LTVs delivered by lenders.

Figure A-11: Estimated Single-Family Guarantee Fee Gap by Acquisition-Volume Group 2010-2013



- Adjusted for risk, small-volume lenders paid lower fees in 2013 than did high-volume lenders.