



## USDA Single Family Programs: Trends in Loans for New Construction

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### INTRODUCTION

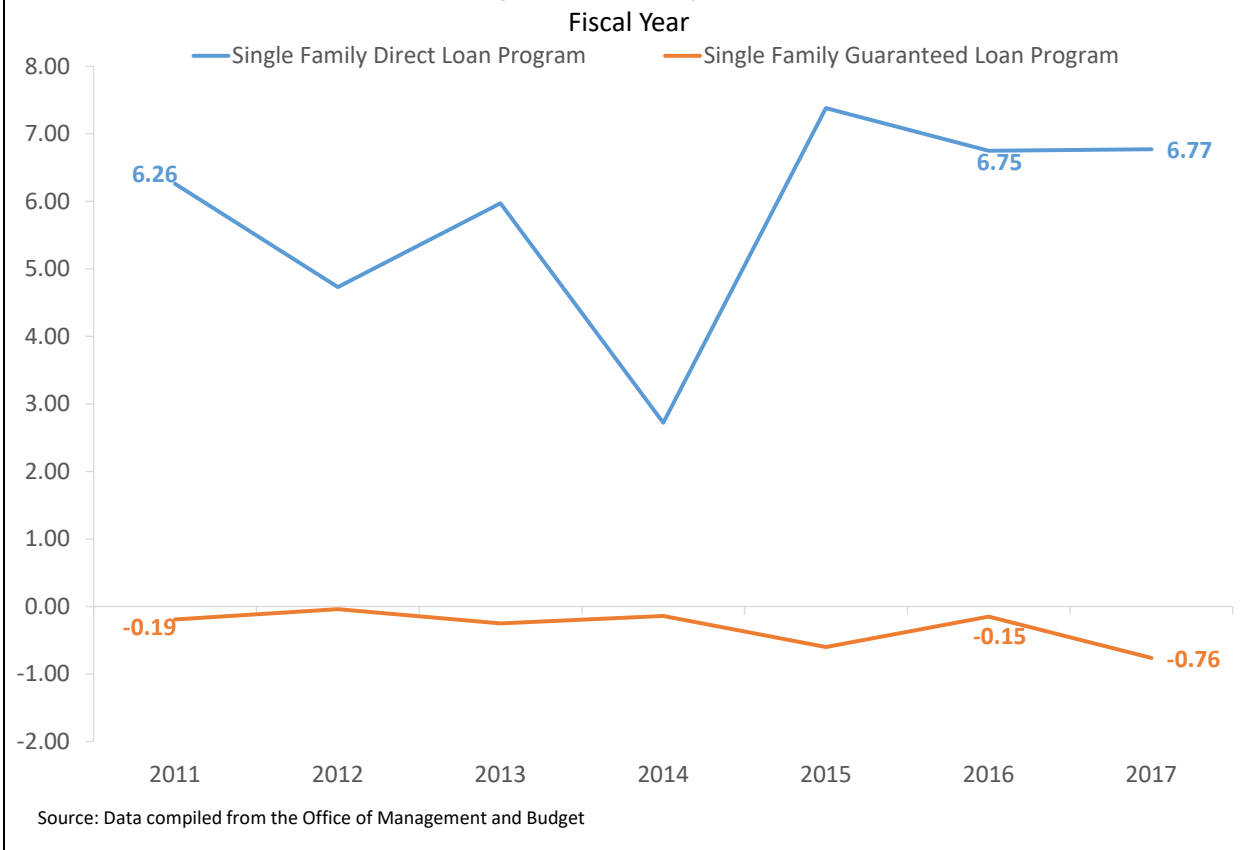
The US Department of Agriculture (USDA), supports the ability of very low-, low-, and moderate-income Americans in rural areas of the country to own a home. The Section 502 Single Family Direct Program targets very low- and low-income rural households while the Single Family Guaranteed Program assists low- and moderate-income rural households<sup>[1]</sup>.

Use of these programs peaked in two different periods. Activity under the 502 Direct Program peaked in 1976 while the 502 Guaranteed Program reached a zenith in 2013. According to the current budget scoring rules, the 502 Direct Program is a net cost to the federal government while the 502 Guaranteed Program generates a net surplus. According to the [Federal Credit Supplement](#) of the Budget of the U.S. Government, the subsidy rate in fiscal year 2016 on the 502 Direct program was 6.75 in Fiscal Year 2016 while the subsidy rate on the 502 Guaranteed program was -0.15 (Figure 1). A program has a positive subsidy rate when the estimated cost to the government of providing credit exceeds the estimated collections from repayments, interest, and fees. In contrast, a program has a negative subsidy rate when the estimated cost to the government of guaranteeing credit is less than the estimated collections from repayments, interest, and fees (November 1, 2016 Special Study). The difference in the subsidy rates between these two programs combined with pressure to reduce the federal deficit are probably the key reasons the Direct program has declined while the Guaranteed program has grown.

The results of loan obligations used for new construction also indicate that there was an increase in activity during the most recent recession, but the decline after 2013 has been greater. Like the Federal Housing Administration's single-family loan program, the USDA programs supported homeownership at a time when obtaining a conventional loan became increasingly difficult. The increase in activity coincided with higher loan-to-value ratios in both programs, but more so for loans obligated for new construction under the Single Family Direct Program.

While the loan-to-value ratio on loans obligated for new construction under the Single Family Guaranteed Program moved in a narrower band, a much larger portion of these loans under this program exceeded 100 percent<sup>[2]</sup>. Over the 2006 to 2016 period, the share of loans with a loan-to-value ratio above 100 percent doubled, partially reflecting the increased prevalence of borrowers financing the guarantee fee associated with the Single Family Guarantee Program<sup>[3]</sup>. In contrast, although the loan-to-value ratio on loans obligated for new construction under the Single Family Direct Program rose significantly, the share of loans with a loan-to-value ratio that exceeded 100 percent remained low and constant.

**Figure 1. Subsidy Rates**



## BACKGROUND AND DATA

Section 502 refers to a section of the Housing Act of 1949, landmark legislation that established the federal government’s role in providing a decent home and a suitable living standard. A recent [report](#) by the Congressional Research Service found that although conditions in cities and their revolving suburbs strongly influenced the provisions in the Act, shortages and low quality housing across rural America were also addressed. According to the [USDA](#), the 502 Direct program assists low- and very-low income households to buy housing in rural areas by providing a subsidy to increase the applicant’s repayment ability. According to a Housing Assistance Council [report](#), the subsidy, requires the home buyer to pay the higher of 1 percent of the amortized loan amount or 24 percent of the household’s annual adjusted income. The term of the loans are 33 or 38 years, depending on the borrower’s income. Borrowers are required to repay all or a portion of the payment subsidy received over the life of the loan when the title to the property transfers or the borrower is no longer living in the dwelling.

The 502 Guaranteed [program](#) targets home buyers in rural areas with slightly higher incomes but doesn’t provide them a direct subsidy. The program helps low- and moderate-income households buy a home in rural areas by guaranteeing 90 percent of the loan in order to reduce the risk to lenders. The Mortgages are typically fixed rate, for 30 years. Borrowers are also charged a fee, similar to the Federal Housing Administration’s mortgage insurance fee, which borrowers can also finance as part of the loan. These fees have reached as much as [4 percent](#) of the loan but are typically closer to [2 percent](#). Financing the guarantee fee allows the home buyer to borrow up to 104 percent of the property’s value. The fee more than covers the losses USDA anticipates from defaulting loans, which is why the subsidy rate for the program is negative (the government takes in more money than it will pay out). According to the Housing Assistance Council [report](#), for purposes of these programs, home buyers with an income below 50 percent of the area family median (AMI) are considered “very-low income”, those with incomes between 50 percent and 80 percent of AMI are designated “low-income”, and those with incomes between 80 and 115 percent of AMI are “moderate-income”. The list of areas that qualify as rural is maintained by USDA. In general, the definition of rural is different for different USDA programs, but are the same for all of USDA’s Single Family Housing programs.

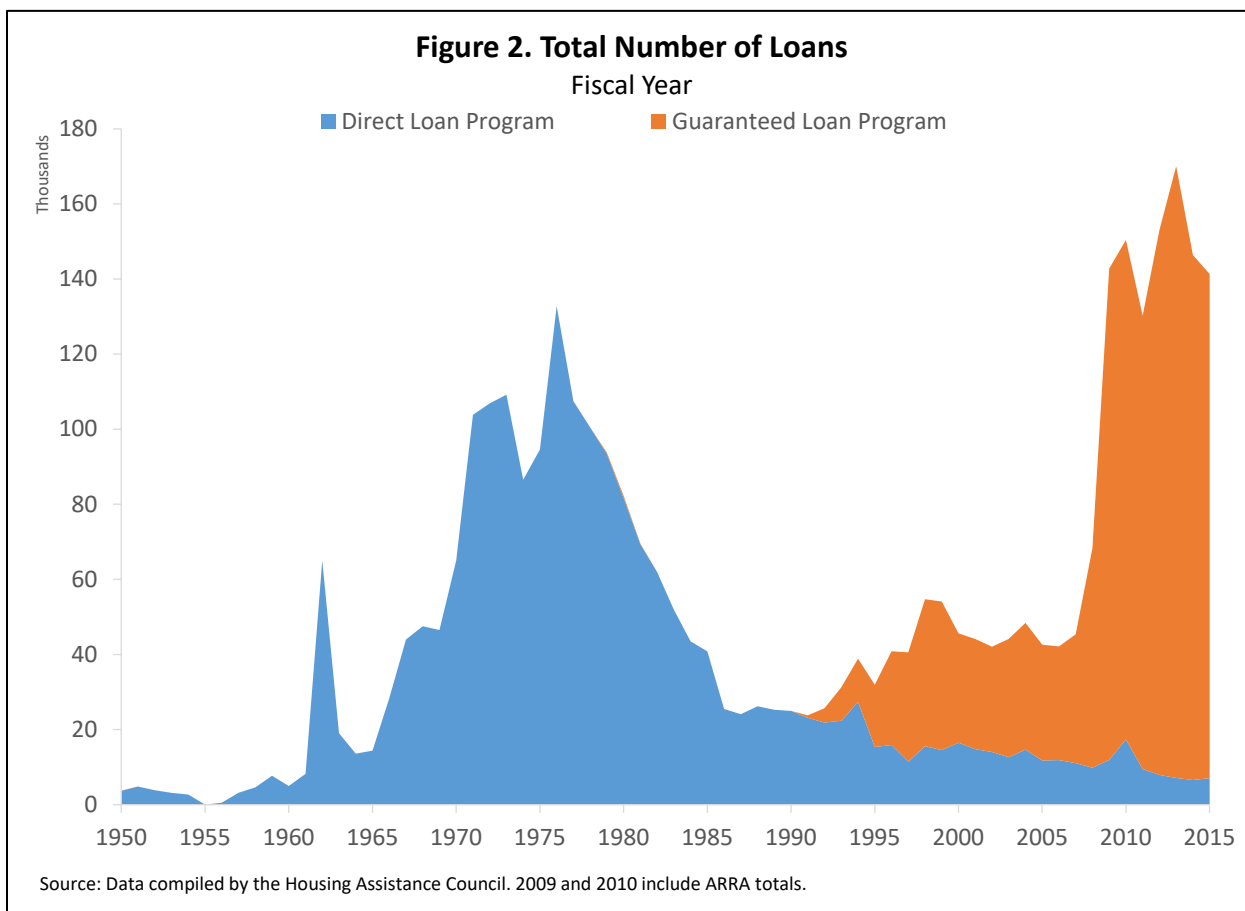
The data used in this analysis were provided to the National Association of Home Builders (NAHB) by USDA. The data contain loan-level information on 502 Direct and Guaranteed loans used for new construction going back to fiscal year 2006 (October 2005). The data include 137,050 Guaranteed loans and 34,384 Direct loans. Information provided on each loan includes the Loan Amount, Interest Rate, County, State, Program (Guaranteed or Direct), Appraisal Amount, and Obligation Date. In addition, data available on the Housing Assistance Council's web site tracks the overall volume of these two programs since their inceptions.

## SIZE OF PROGRAM

### Overall

The history of the program can be divided into two distinct periods. Over the period between 1950 and 1994, the number of loans under the 502 Direct program exceeded the number under the Guaranteed program. Excluding the spike in 1962, use of the Direct program began a sustained increase following 1965 and peaked in 1976. During the next 10 years, the number of loans under the 502 Direct began a steep decline. Since 1986, the number of loans under the 502 Direct program has continued shrink, but at a slower pace.

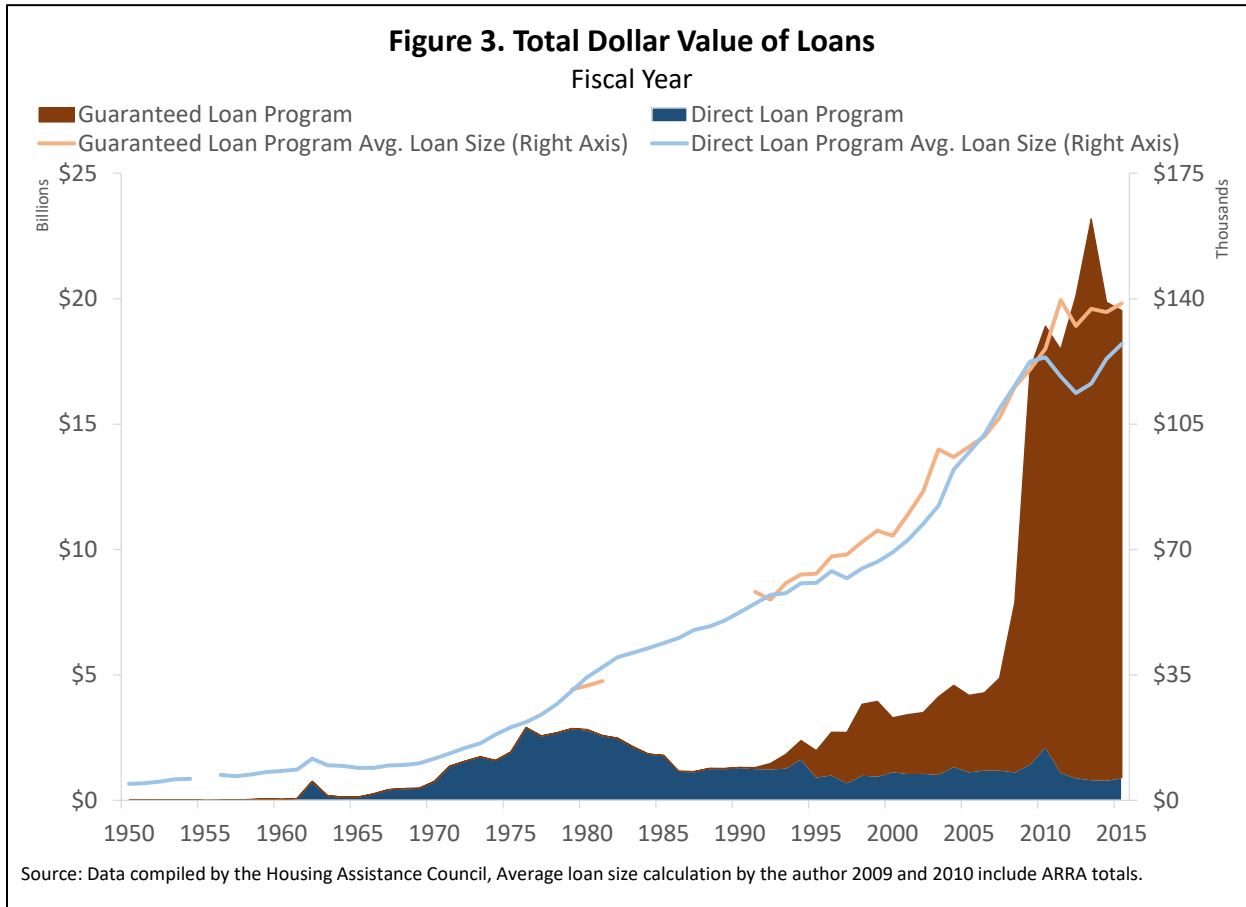
As the number of loans under the 502 Direct program has shrunk, the size of the 502 Guaranteed program has expanded. Over 1990 and 1999, the number of 502 Guaranteed loans rose from 0 to 39,566. After a period of stagnancy, the number soared from 2008 to 2013, rising by 375 percent over that period. Even excluding the loans obligated under the American Recovery and Reinvestment Act of 2009, the number of loan obligations under the 502 Guaranteed program rose significantly. After peaking in 2013, the number of obligations have begun to decline but remains close to its most recent peak level, far exceeding the number of loans obligated under the 502 Direct program (Figure 2).



At the peak of the Direct program in 1976, the dollar volume of Direct loans was about 1/8<sup>th</sup> the volume of the Guaranteed loan program at peak in 2013. The difference in total loan obligations at each programs peak reflects not only the number of loans, but the average loan amount. At its peak in loan volume, the average Direct loan amount was

\$21,842. However, at the Guaranteed program's peak volume, the average loan amount (not adjusted for inflation) reached \$137,167 (Figure 3).

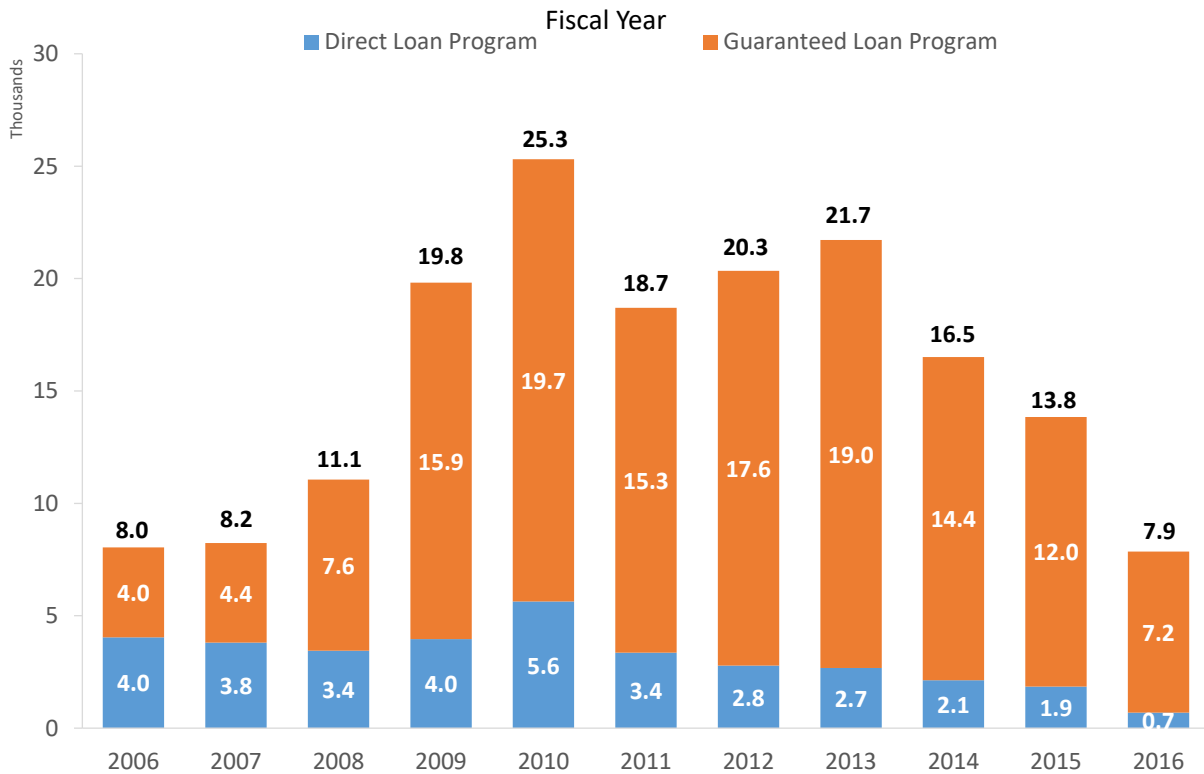
Measured either by number of loans or dollar volume, the Guaranteed program strongly expanded after 1990 while Direct program declined. This is more likely due to the estimated cost to the government of the 502 programs, along with new budget scoring rules and an emphasis on reducing the Federal deficit in the 1990s, rather than a change in underlying demand for the programs. This makes it particularly important to investigate differences in the loans, borrowers and homes purchased under the two programs.



### New Construction Only

The loan level data provided by USDA covers the most recent economic and housing cycle. Over the last recession, a shrinking share of new home sales were purchased with a conventional mortgage. The number of loans for newly constructed homes under the 502 direct and Guaranteed programs were roughly the same in 2006, but diverged sharply thereafter (Figure 4).

**Figure 4. Total Number of Loans, Purchases of New Construction Only**

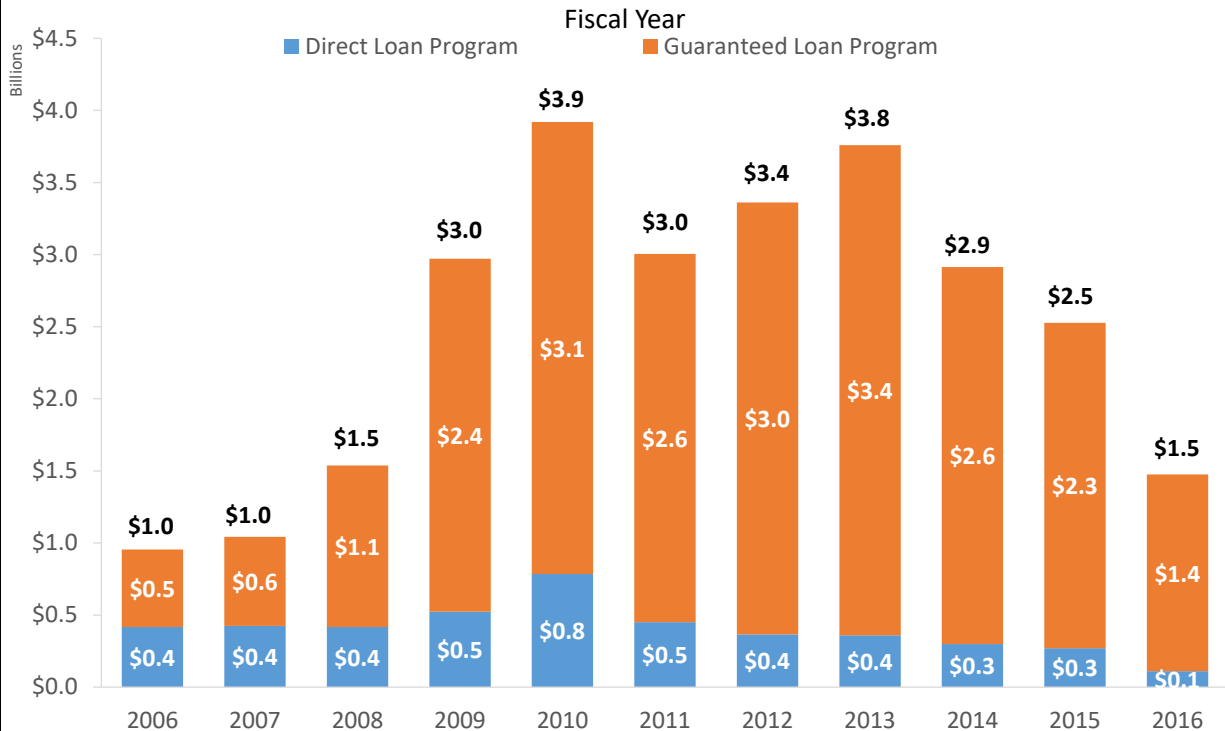


Source: Author's calculations from data provided by the Department of Agriculture. Data covers new construction only.

The number of loans obligated under the 502 Direct and Guaranteed programs combined rose as the recession worsened. This dynamic suggests that, like the FHA program, the Section 502 program also filled a portion of the gap voided by the conforming loans during the financial crisis. The total number of 502 loans for new construction began to rise in 2008, peaking at 25,311 in 2010. After 2013, the total number of 502 loans used for new construction has fallen. Over this period of time, the share of conventional mortgages used for new construction has risen.

Comparatively, the growth in loans for new construction under the 502 Guaranteed program outpaced the rise in the 502 Direct program. Over the 2009 and 2010, the number of loans obligated under the Guaranteed program rose by 159 percent to 19,677 and the number of obligated loans under the Direct program increased by 63 percent to 5,634. The number of obligated loans under the Direct program began to decline following 2010 while Guaranteed lending remained strong until 2013 when activity began to fall.

**Figure 5. Total Dollar Value of Loans, Purchases of New Construction Only**



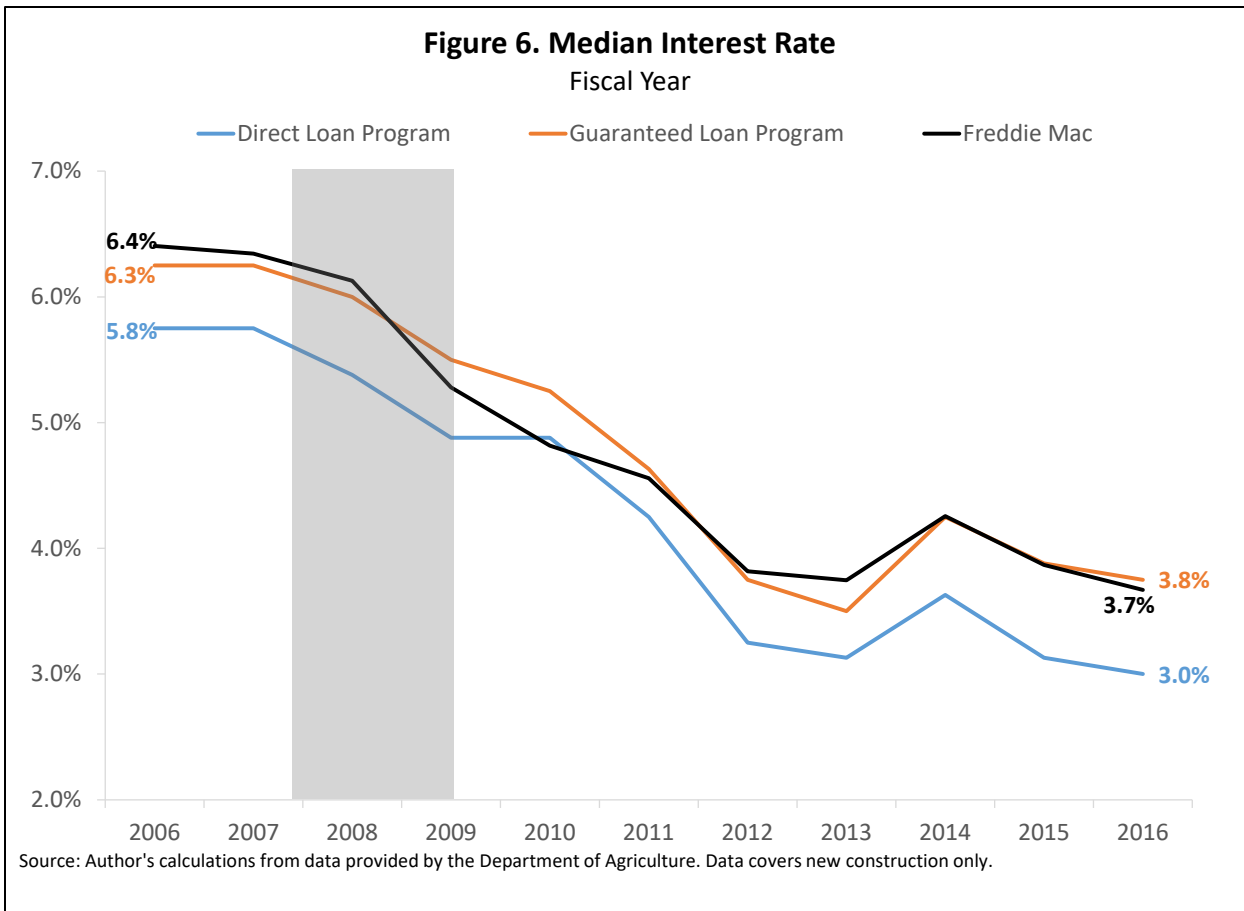
Source: Author's calculations from data provided by the Department of Agriculture. Data covers new construction only.

A similar trend emerges when assessing changes in loan volume in dollars over the most recent cycle (Figure 5). Growth overall occurred as the recession deepened. The increase in loan volume under the Guaranteed program exceeded growth under the Direct program—by 188 percent compared to 88 percent. Loan volume under the Direct program began to taper off in 2011 while volume under the Guaranteed program didn't begin to drop until 2014.

**CHARACTERISTICS OF LOANS FOR NEW HOMES**

Interest Rates

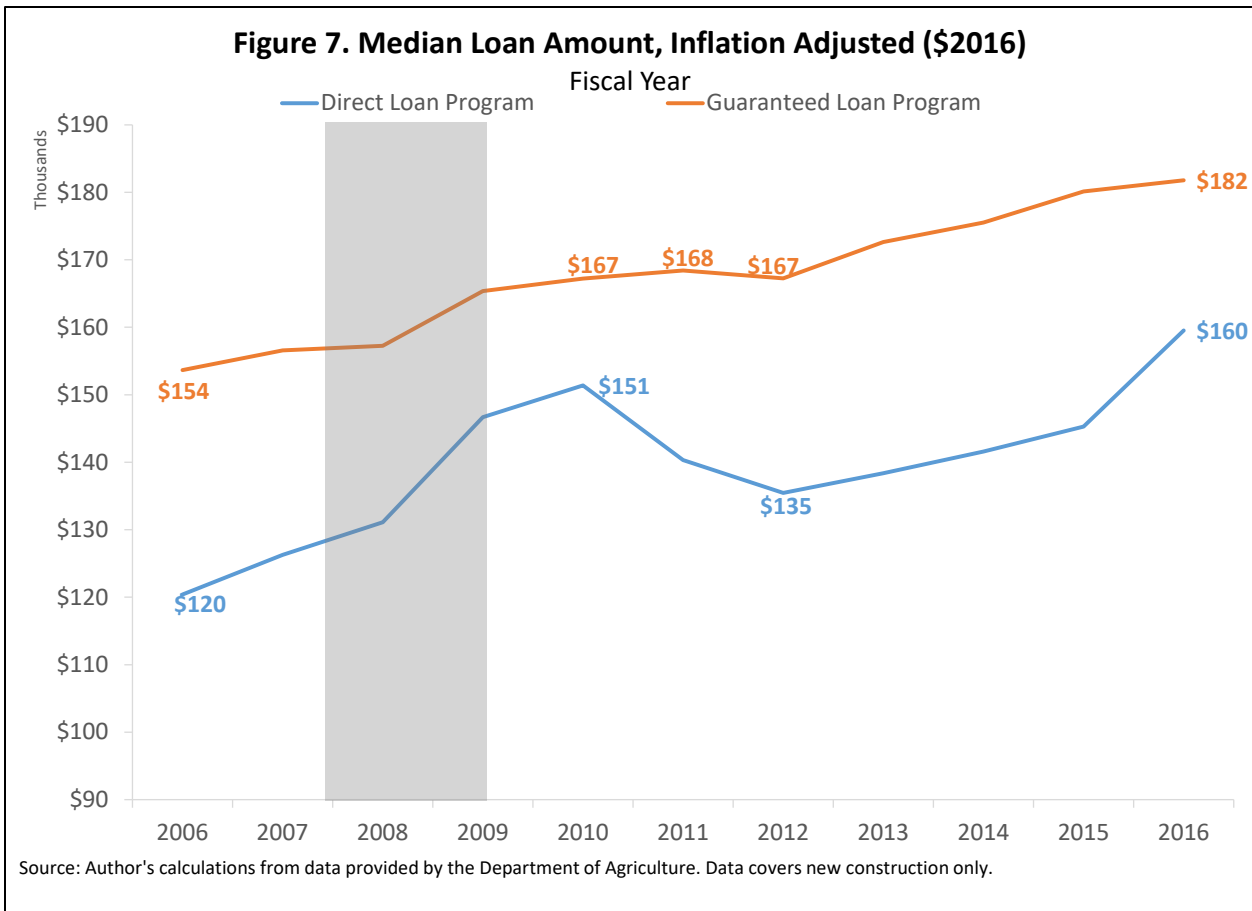
Interest rates on mortgages used for home purchases (as opposed to refinancing), as measured by loan-level data made publically available by the Federal Home Loan Mortgage Corporation (“Freddie Mac”) have been declining over the 2006 to 2016 period. Over a longer period, rates have generally fallen since the era of double-digit inflation in the late 1970s. Consistent with the rules of the 502 Guaranteed program, the rate level on Guaranteed obligated loans closely matches the market-rate on fixed rate purchase loans provided by Freddie Mac.



Reflecting the subsidy it provides, the mortgage rate on loans under the 502 Direct program is considerably lower. Figure 6 shows that, after rising in 2008, the spread between the rate on a loan obligated under the Guaranteed and Direct programs fell to below 50 basis points between 2010 and 2013.

### Loan Amounts

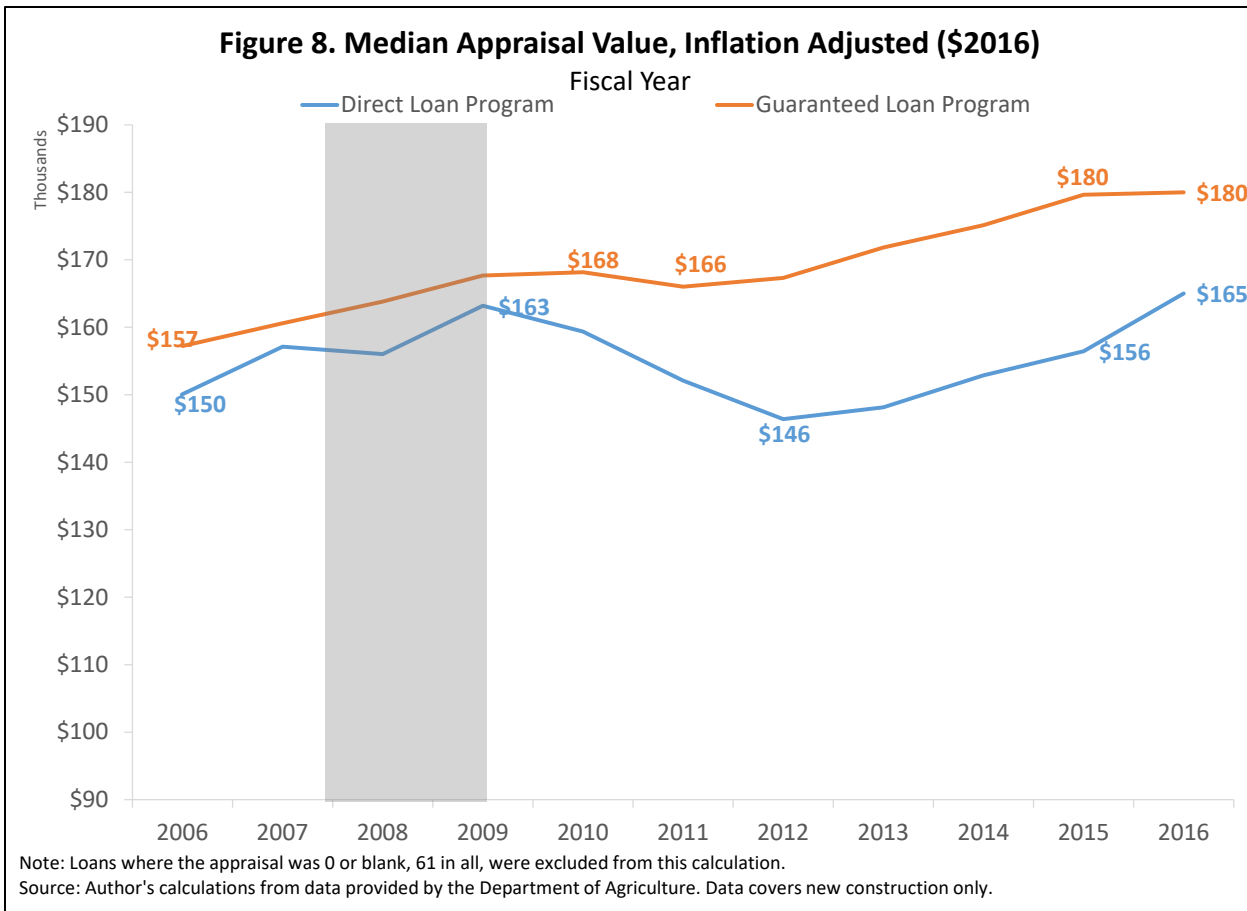
Loans obligated under the 502 Guaranteed program tend to be larger than the loans under the 502 Direct program. This likely reflects higher priced homes, but, to a lesser extent, it may also reflect the ability of borrowers to finance the guarantee fees associated with the Direct program. In addition, according to the Housing Assistance Council, the variation in loan amounts may also reflect where the loans are made. In e-mailed comments, the Council noted that there has been a trend of increasing USDA single family activity located in suburban and exurban areas and less activity in actual rural communities (as part of the total ratio of activity) – especially within the guaranteed product. On an inflation-adjusted basis, the median loan amount on loans obligated under the Guaranteed program rose by 9 percent, from \$153,648 in 2006 to \$168,433 by 2011. The median loan value ticked down in 2012 before a sustained increase in the following years. In 2016, the median loan amount under the Guaranteed program reached \$181,789 (Figure 7).



The median inflation-adjusted loan amount on loans obligated under the 502 Direct program rose even faster over the 2006-2010 period, increasing by 26 percent. However, there was a sharp, 11 percent decrease between 2010 and 2012. The median loan amount under the Direct program has also begun to increase in subsequent years, reaching \$159,530 in 2016.

New Home Values

As mentioned above, trends and differences in loan amounts are related to the value of the homes purchased. As shown in Figure 8, the median appraised value on new homes purchased under the 502 Guaranteed program rose between 2006 and 2010 by 7 percent before a 1 percent decline in 2011. Since 2011, but ending in 2015, appraised values have increased by 8 percent.

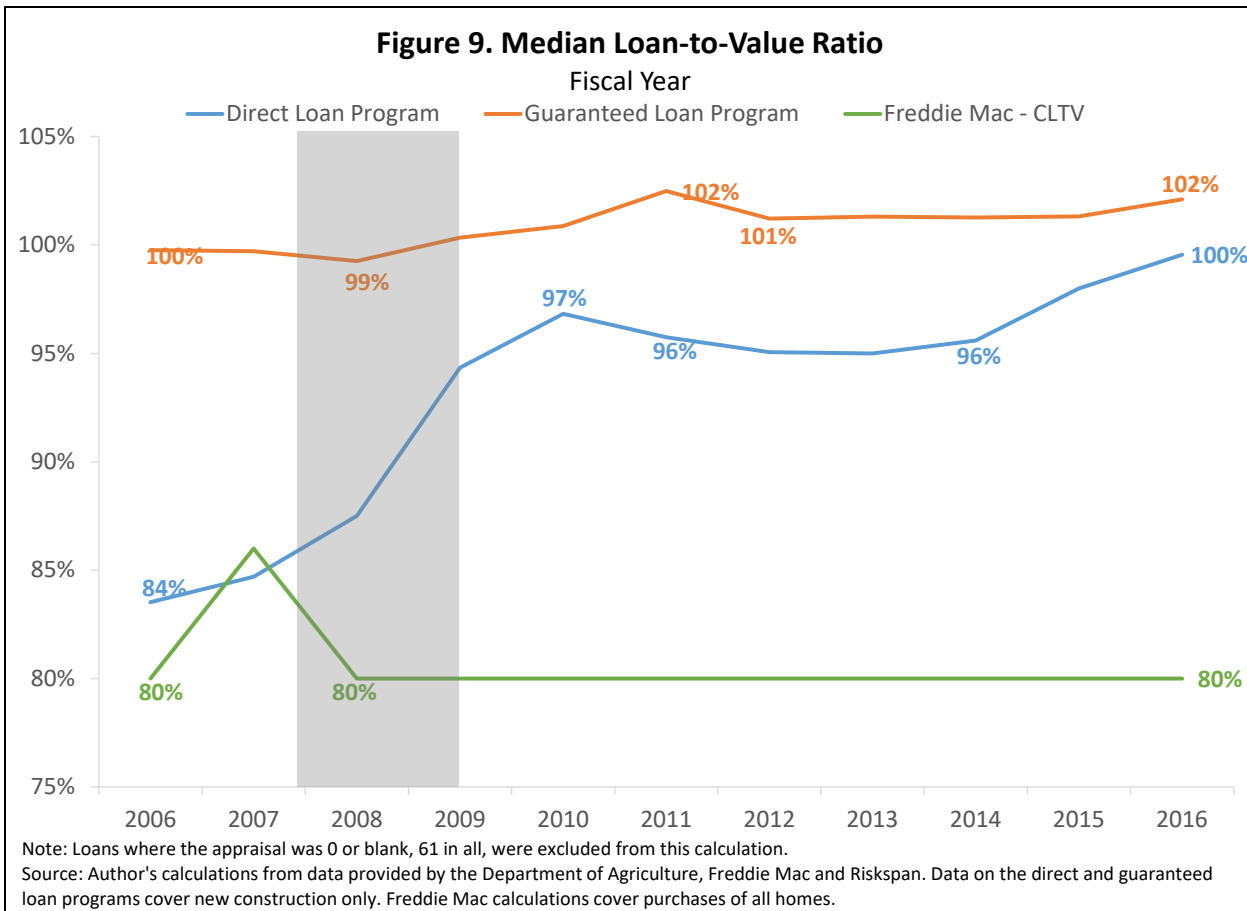


The median appraised value of new homes purchased with 502 Direct loans was consistently lower than the median value of homes purchased with 502 Guaranteed loans. Nevertheless, in similar fashion, the median inflation-adjusted appraised value under the Guaranteed program rose by 9 percent between 2006 and 2009 while the median real appraised value under the Direct program increased by 6 percent between 2006 and 2010.

Additionally, while appraised values on new homes saw a slight decline between 2010 and 2011 under the 502 Guaranteed program, new home values under the Direct program fell even more and over a longer period of time, by 10 percent between 2009 and 2012. Appraised values of new homes purchased with 502 Guaranteed loans have begun to rise in the following years and, on an inflation-adjusted basis, surpassed their 2009 peak level in 2016. However, the increase in the median appraised value, 13 percent, was less than the increase in the median loan amount over the same period, 18 percent. In short, this implies the loan-to-value ratio was rising.

### Loan-to-Value Ratio

Although the median loan-to-appraised value ratio (LTV), on loans for new homes purchased under the 502 Guaranteed program has stayed within a narrow band, it has moved enough to break above 100 percent at times—significant, because it indicates the pervasiveness of financing the associated guarantee fee. As Figure 9 shows, the LTV on loans for newly constructed homes under the Guaranteed program ticked down to 99 percent in 2008, from 100 percent in 2006. However, in the years between 2008 and 2011, a time period that coincided with an increase in loan volume, the median LTV reached 102 percent. After 4 years spent at 101 percent, the median LTV ratio has returned to 102 percent.



Since 2006, the LTV for new homes purchased with 502 Direct loans rose dramatically<sup>[4]</sup>. Over the 2006 to 2010 period, when loan volume climbed 40 percent, the median LTV ratio rose to 97 percent, from 84 percent in 2006. The ratio fell slightly between 2010 and 2014 consistent with the decline in the median loan amount that exceeded the decrease in the median appraised value. Since 2014, the median LTV on Direct loans for new homes rose to 100 percent, exceeding its 2009 peak of 97 percent.

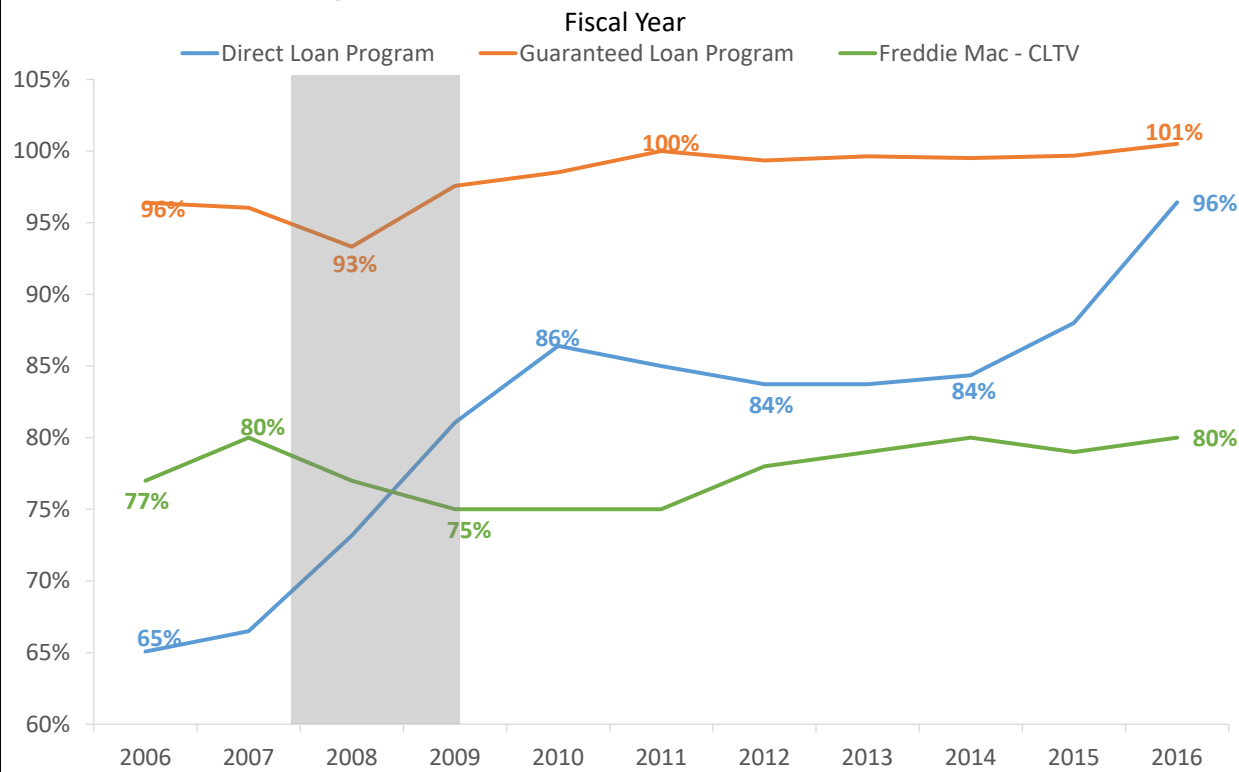
The median LTV on loans for new homes under the 502 Guaranteed program consistently exceeds the ratio on Direct loans, but both 502 programs tend to have higher LTVs than conforming loans purchased by Freddie Mac.

### 25<sup>th</sup> Percentile

While median ratios that show what's happening in the middle of the LTV distribution are somewhat informative, so are tendencies closer to the top and bottom of the distributions. For example, previous NAHB [analysis](#) of LTVs on conforming loans illustrated that leverage at the 10<sup>th</sup> percentile of the purchase mortgage distribution had returned to its pre-recession level.

Looking at the 25<sup>th</sup> percentile (instead of the 50<sup>th</sup> percentile or median), the LTV on new homes purchased with 502 Guaranteed loans in 2006 was 96 percent. However, on new homes purchased with 502 Direct loans the 25<sup>th</sup> percentile LTV that same year was only 65 percent, below even the 25<sup>th</sup> percentile LTV ratio on conforming loans purchased by Freddie Mac (Figure 10)<sup>[5]</sup>.

**Figure 10. 25TH Percentile Loan-to-Value Ratio**



Note: Loans where the appraisal was 0 or blank, 61 in all, were excluded from this calculation.

Source: Author's calculations from data provided by the Department of Agriculture, Freddie Mac and Riskspan. Data on the direct and guaranteed loan programs cover new construction only. Freddie Mac calculations cover purchases of all homes.

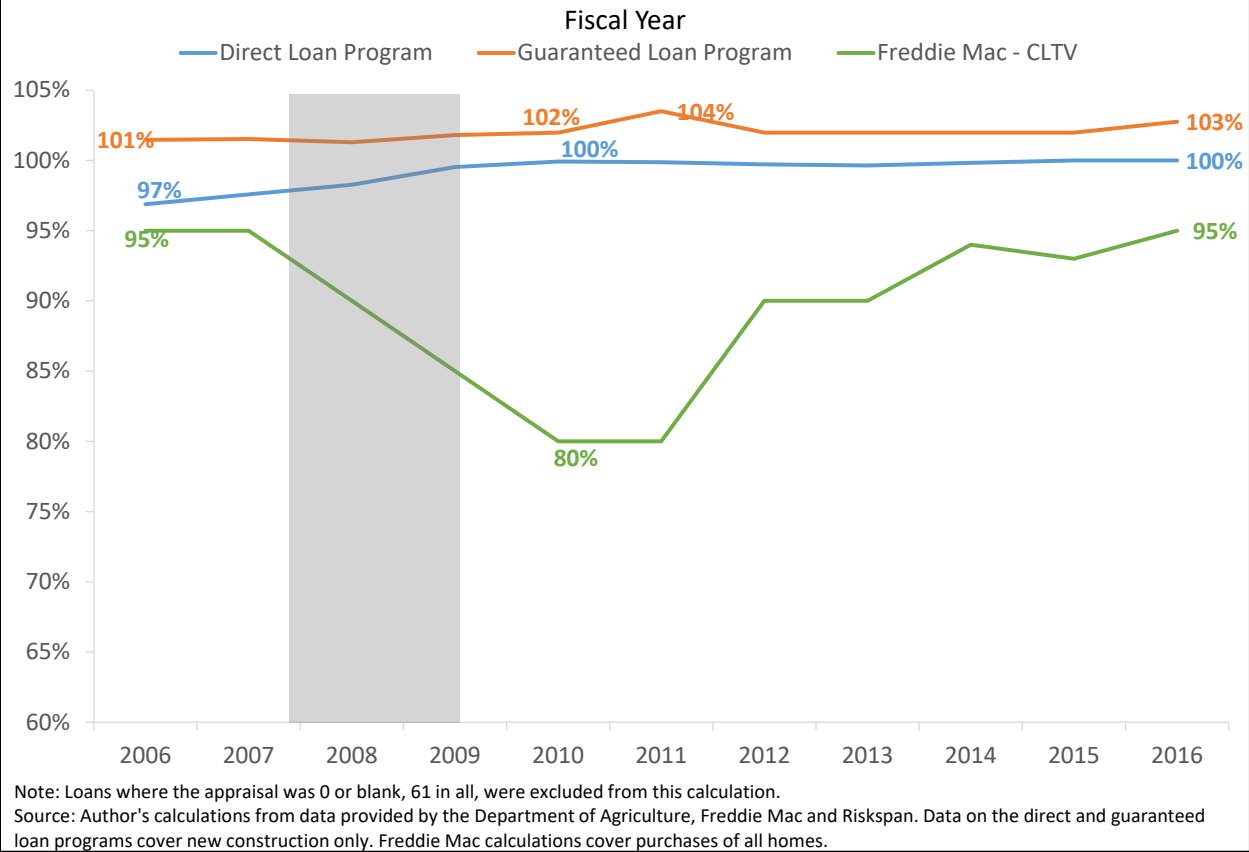
Over the 2006 to 2010 period, when the number of 502 loans for new homes began to grow during the onset of the recession, the 25th percentile LTV under the two 502 programs began to rise even as it declined slightly for loans purchased by Freddie Mac. Under the 502 Guaranteed program, the 25th percentile LTV for new home loans fell to 93 percent between 2006 and 2008 but then rose to 100 percent by 2011. Meanwhile, under the 502 Direct program the 25th percentile LTV on new home loans rose by 21 percentage points to 86 percent in 2010. In contrast, the 25th percentile LTV on loans purchased by Freddie Mac fell from 80 percent in 2007 to 75 percent in 2009, the years when new production overall was in steep decline.

Since 2011, the 25th percentile LTV on new home loans under the 502 Guaranteed program has remained about flat, ticking up to 101 percent. After a decline between 2010 and 2012, the 25th percentile LTV on new homes purchased with 502 Direct loans rose dramatically between 2014 and 2016. Since 2009, the 25th percentile LTV on new home loans under the Direct program has been above the 25th percentile on loans purchased by Freddie Mac.

### 75<sup>TH</sup> Percentile

Trends in 75th percentile LTVs, borrowers with higher than median leverage ratios moved in a narrow band under the two Section 502 programs, with both rising slightly between 2006 and 2010. In contrast, the 75th percentile LTV for Freddie Mac loans displayed greater fluctuation, falling in the years when LTV ratios on Section 502 programs were rising.

**Figure 11. 75TH Percentile Loan-to-Value Ratio**

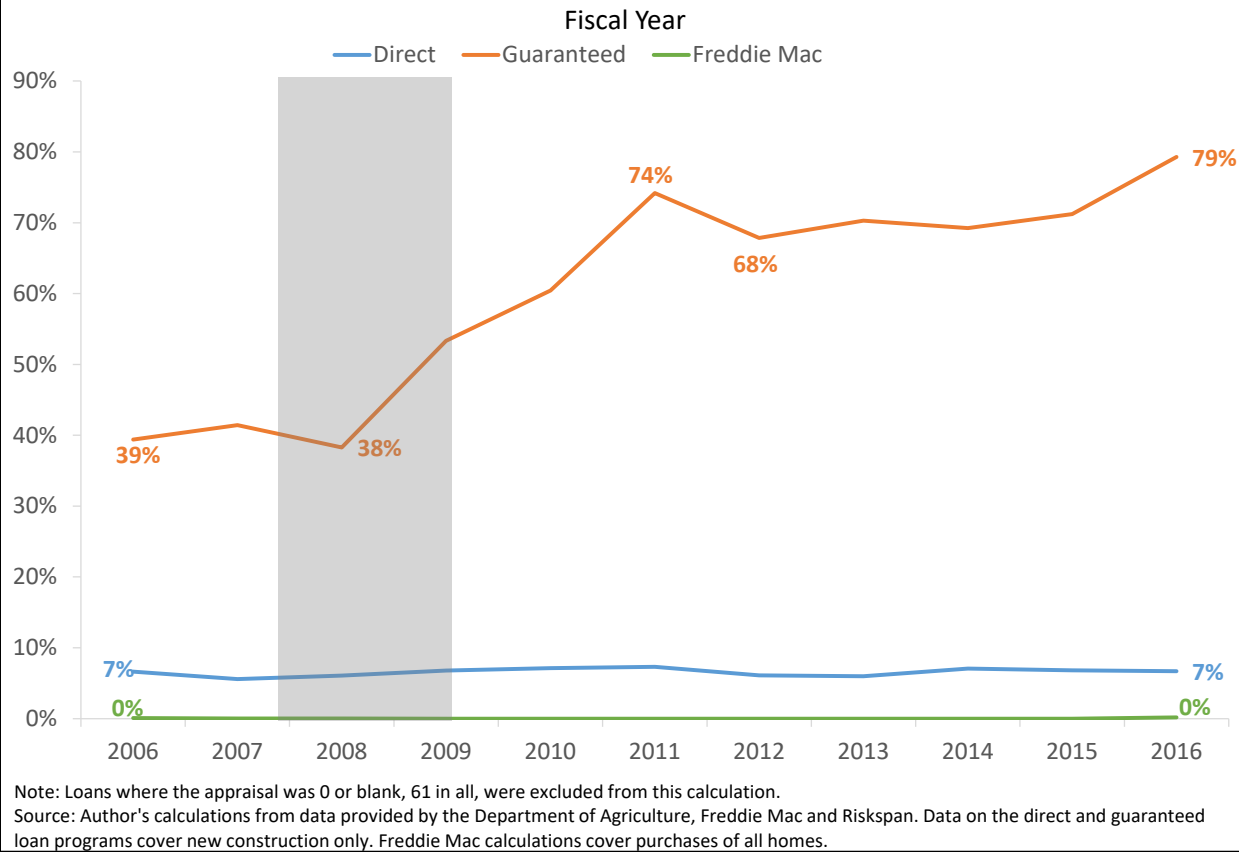


In the years following 2011, the 75th percentile LTVs remained generally constant on the two Section 502 programs, but rose on the Freddie Mac purchase loans. By 2016, the 75<sup>th</sup> percentile LTVs on new home loans under the two Section 502 programs were higher than in 2006 while on the conforming loans purchased by Freddie Mac, the 75<sup>th</sup> percentile LTV was the same age in 2016 as it had been in 2006.

#### LTV Ratio exceeding 100 Percent

Although the median LTV on new home loans under the 502 Direct program rose significantly 2006-2016, the share with an LTV exceeding 100 percent has remained low and constant over the same time period. In contrast, the share of new home loans with 100 percent-plus LTVs under the 502 Guaranteed program has risen dramatically to a high level<sup>[6]</sup>. Over the 2008 to 2010 period when loan volume grew by 182 percent, the share of 502 Guaranteed loans with LTVs above 100 percent nearly doubled, from 38 percent to 74 percent.

**Figure 12. Share of Loans with Loan-to-Value Ratio Above 100%**



The increase in LTVs over 100 percent under the 502 Guaranteed program likely reflects the financing of guarantee fees. After declining in 2012 and remaining about flat through 2014, the proportion of new home loans with LTVs exceeding 100 percent under the 502 Guaranteed program began to rise in 2015 and by 2016 the share exceeds its 2011 cyclical peak. Meanwhile, virtually no fixed rate conforming loans purchased by Freddie Mac had an LTV ratio above 100 percent over the 2006 to 2016 period.

## SUMMARY AND CONCLUSION

Over the years, the 502 Direct program has declined dramatically while the 502 Guaranteed program has expanded. The primary cause of this is almost certainly the difference in how much these programs cost the government in an era when there has been pressure to reduce the federal deficit.

Both 502 programs are used by buyers of new homes. The 502 Direct program targets lower income buyers and provides a significant interest rate subsidy. Because of this, it is unlikely many of these home purchases would have taken place in the absence of the program, making it relatively clear that the Direct program stimulates home purchases and construction in rural areas.

Even though the 502 Guaranteed program does not provide a similar subsidy (and, in fact, generates a small amount of net revenue for the government), it allows mortgages with high LTVs to take place. Given the difficulties private lenders face in evaluating loans for the non-standard and often isolated properties typical of rural areas—and getting these properties appraised when the comparables may be scarce or non-existent—it is likely that the Guaranteed program also has a stimulating effect on home buying and home construction.

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<sup>[1]</sup> These programs are coordinated by the USDA's Rural Housing Service.

<sup>[2]</sup> Loan-to-value ratios are calculated at the time of obligation.

<sup>[3]</sup> The guarantee fee analogous to mortgage insurance paid by borrowers of FHA-endorsed mortgages as opposed to the guarantee fee paid by lenders to the government-sponsored enterprises. The guarantee fee under the USDA Single Family Guaranteed Program can reach as high as 4.0 percent, 3.5 percent is an upfront fee while 0.5 percent is an annual fee paid over the life of the loan.

<sup>[4]</sup> E-mailed comments by the USDA highlighted that "the lower LTV direct loans may have been leveraged with a conventional first mortgage and secured by a junior lien...with a combined LTV of 100%." According to comments by the Housing Assistance Council, "Prior to 2006, there were more loans supplemented by other financing (leveraged loans), the total LTV was probably much higher when the leveraged financing is included. Also, a significant portion of the new construction financing in the Direct loan program is attributable to the Self-Help program – borrowers build their own homes under the supervision of a Technical Assistance provider, reducing the borrowing needs through sweat equity."

<sup>[5]</sup> The low LTV between 2006 and 2009 likely reflects the presence of self-help or leveraged loans.

<sup>[6]</sup> Direct loans may exceed the appraised value for only a few specific items (appraisal fee, homeowner education fee, tax service fee, and initial contribution escrow account for taxes and insurance). Guaranteed loans may exceed the appraised value by the amount of the guarantee fee.