Better Housing: FHA Title I Property Improvement Loans

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The views expressed in this article are those of the author and do not represent the official positions or policies of the Office of Policy Development and Research, the U.S. Department of Housing and Urban Development, or the U.S. government.

Abstract

The Federal Housing Administration (FHA) has helped finance home alterations, repairs, and improvements since its creation in 1934. Despite accounting for the majority of FHA-insured loans early in its history, the Title I property improvement program has declined substantially over time. Some of the decline is explained by difficulty regulating the quality of improvement contractors and the growth of conventional financial alternatives but also because Title I loan limits and underwriting procedures have not changed in nearly 30 years. Nevertheless, Title I is still disproportionately used by lower-income borrowers, borrowers with lower credit scores, and borrowers with lower-valued homes. Title I also has a higher share in rural and distressed markets. Reforming the Title I program may help improve the energy efficiency of the residential sector and ameliorate the lack of affordable housing.

Introduction

The National Housing Act of 1934 is best known for creating the Federal Housing Administration (FHA) to insure home mortgages, but the first section of the Act also covers insurance of financial institutions against losses on loans “for the purpose of financing alterations, repairs, and improvements upon real property.” Title I was at the heart of a New Deal initiative to modernize housing as a means to improve the welfare of American households and employ surplus labor in home construction and repair. It also introduced commercial banks to consumer installment lending, which revolutionized household finance.

FHA endorsed more Title I loans per year than home mortgages for its first 35 years (exhibit 1). The cumulative number of property improvement loans was greater than the number of home
mortgage program loans until the financial crisis of 2008. Title I, however, is often overlooked (Glock, 2016; Harris, 2009), which may be partly because the property improvement program has not kept pace with changes in the financial industry, causing disbursements to tumble and the program to drift into obscurity.1

**Exhibit 1**

**Title I and 203(b) Insured Loan Originations, 1934–2021**

Today, home remodeling is a $350 billion market. On average, a homeowner spends $4,120 per year on home maintenance and improvements (Joint Center for Housing Studies, 2021). Most projects are small and can be covered out of pocket, but larger projects require financing. Among projects of at least $50,000, only 54 percent are covered by cash from savings, while extracting home equity through cash-out refinancing and home equity lines of credit accounts for 19 percent of these projects (Joint Center for Housing Studies, 2019). Homeowners with poor credit and limited wealth still need to undertake maintenance and improvements but may be excluded from many financing options.

This article briefly describes FHA’s Title I property improvement program and its history. The analysis used data from the Home Mortgage Disclosure Act to examine who Title I still serves.

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1 Title I has also encompassed loan insurance on personal property loans to purchase and refinance manufactured homes since 1969 (Park, 2021). The Title I manufactured housing program is plagued by many of the same problems as the property improvement program, but this article focuses only on the latter.
FHA’s property improvement loans are disproportionately used by borrowers with lower credit scores and lower-valued homes, by single borrowers (particularly single males), in times and places with high levels of mortgage delinquency, and in rural areas. Those trends suggest that Title I continues to fill a niche in financing property improvements. Reforms of Title I, such as increasing loan limits and automating underwriting to reduce origination costs, could help address needs in the American housing market related to energy efficiency and affordability.

**Program Description**

After suffering scandals and substantial losses in the 1990s (see section “Suede Shoe Salesmen, Racketeers, and Gangsters” later in this article), FHA reformed the Title I property improvement program. Those reforms helped improve its financial condition but have not stopped a long-run decline in disbursements (exhibit 2). Title I averaged more than 70,000 property improvement loans per year in the 1990s but only 5,000 per year after the year 2000 and even fewer so far in the 2020s. The number of active lenders in the program (i.e., lenders with at least one disbursement in a given year) has declined from more than 1,000 in the 1990s to roughly 30.

**Exhibit 2**

Title I Lenders and Loan Originations, 2000–2021

![Graph showing decline in loans and lenders from 2000 to 2021](image)

*Source: Author tabulations of Federal Housing Administration administrative data*

**Underwriting and Eligibility**

Title I lenders must generally meet the same approval requirements as in Title II, which covers the more well-known 203(b) single-family mortgage insurance program. An annual insurance
premium of 1 percent of the loan amount is paid by the lender. If the borrower defaults on loan payments, the lender can assign the loan to the U.S. Department of Housing and Urban Development (HUD) for collection through offsets of federal payments (federal tax refunds, Social Security benefits, etc.).

Borrower eligibility is not restricted to residential owner-occupants, but the borrower must have at least one-half interest in the property. Investors and even renters are also eligible if their lease is at least 6 months longer than the loan term. The property can be a single-family or multifamily dwelling, manufactured home (owned as either real or personal property), or even nonresidential.

The property can serve as collateral, or the loan can be unsecured. A property appraisal is not required. No investment, downpayment, home equity, or cash reserves are required. Lenders must pull a credit report from at least two national credit bureaus and analyze the creditworthiness of the borrower, but no minimum credit score is required, and lack of traditional credit history cannot be the sole basis for rejecting an application. Total debt payments as a share of effective income, or the debt-to-income (DTI) ratio, can reach up to 47 percent if compensating factors (e.g., assets after closing, residual income) are present. Loans must be fixed rate, with terms between 6 months and 20 years. The lender must interview the borrower face-to-face or by telephone to ensure that information is complete and accurate.

### Loan Limits

One significant factor contributing to the decline of the Title I property improvement program is that loan limits have not kept pace with inflation. The maximum loan amount for a secured home improvement loan was increased from $17,500 to $25,000 for a single-family property (or up to $60,000 for a multifamily property) in September 1992. The maximum unsecured amount was increased from $5,000 to $7,500 in August 1994.

The secured loan limit would have to be doubled ($51,000 for a single-family home) to account for inflation since 1992 (exhibit 3). Home improvement costs have risen faster than overall inflation, however. For example, the Producer Price Index series on Inputs to Residential Maintenance and Repair has increased 159 percent since 1994, which would increase the secured single-family loan limit to $64,700. House prices overall have increased 268 percent, which would increase that limit to $91,900.

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2 Terms fewer than 25 months must be paid upfront, but longer-term loans are paid in annual installments of 1 percent.
3 Technically, Title I property improvement loans are limited to 20 years and 32 days. Manufactured homes classified as chattel are limited to 12 years and 32 days; manufactured homes classified as real property are limited to 15 years and 32 days. Loan terms of refinances must not exceed the maximum term of the original loan plus 9 years and 11 months.
6 If one were to index the original loan limit of $2,000 in 1934 to inflation, the current limit would be $43,560, or up to $126,800 to account for house prices using Shiller’s (2022) historical house price index.
Evidence shows that failing to increase loan limits has made them more binding over time. The share of single-family loans for the maximum loan amount has doubled from less than one-fourth in 2012 to more than one-half by 2018, including nearly three-fourths of unsecured loans by 2021 (exhibit 4). The increase in the share of loans at the maximum loan amount corresponds to the declining number of Title I disbursements and market share.
Reserve Account

Unlike FHA’s standard loan insurance programs, Title I property improvement loans are financed through a system of co-insurance. The insurance covers 90 percent of loan losses but cannot exceed a Reserve Account equal to 10 percent of the aggregate amount disbursed by a lender. The risk-sharing arrangement in Title I is meant to limit FHA’s liability and align incentives. A lack of “skin-in-the-game” by lenders creates a moral hazard that undermines rigorous underwriting and was seen as a substantial contributor to the financial crisis of 2008, particularly in the private securitization market (Keys et al., 2010; Levitin and Wachter, 2012; Mian and Sufi, 2008).

Consequently, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 requires risk retention except for loans meeting a prescribed definition of low risk. The portfolio structure of the co-insurance can also distort incentives. As defaults increase, lenders have an incentive to originate more loans to increase the Reserve Account. That moral hazard may have contributed to a high level of defaults and claims in the 1980s and 1990s, particularly in FHA’s Title I manufactured housing program, which had a similar co-insurance scheme. The FHA Manufactured Housing Loan Modernization Act of 2008 converted Title I manufactured home loans to a loan-level insurance similar to Title II to encourage loan securitization. However, Title I property improvement loan insurance retains aggregate limits.

Source: Author tabulations of Federal Housing Administration administrative data

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7 Public Law 111-203.
8 Part of the Housing and Economic Recovery Act, Public Law 110-289.
Types of Improvements

The nature of the improvements to be made must be specified, and the lender must determine if all improvements are eligible for Title I financing as well as the reasonableness of the costs for labor and materials. Improvements must substantially protect or improve the basic livability or utility of the property, generally must be permanent, and may not include components not fully owned by the borrower (e.g., leased energy systems). Loan proceeds may only be used for improvements started after loan approval, although an exception may be made for presidentially declared disaster areas.

Between 2005 and 2022, $1.04 billion in Title I property improvement loans (excluding refinances) financed $1.48 billion in property improvements. That is, actual improvement spending is roughly 42 percent higher than the amount borrowed, or the loan amount covers about 70 percent of expenditures. Exhibit 5 shows what types of improvements are financed by Title I. The most common types of improvements are structural additions and alterations, accounting for 15 percent of Title I-financed improvements, followed by interior and exterior finishing (roughly 13 percent each) and roofing (8 percent). Solar energy systems account for less than 6 percent of expenditures over the entire period but reached as high as 17 percent in 2014. More recently, expenditures for new nonresidential buildings have risen from less than 1 percent of Title I-financed improvements to over 30 percent, albeit of a declining amount of total Title I disbursements. 

Exhibit 5  
Title I-Financed Home Improvements

Unsecured loans accounted for only 7 percent of the total disbursed loan amount, but 13 percent of improvement spending, because the ratio of expenditures to borrowing was nearly 2.7 (compared
with only 1.3 for secured loans). Unsecured loans were more likely used for exterior finishing (17 percent), heating, cooling, and ventilation (13 percent), interior finishing (13 percent), and structural additions and alterations (11 percent).

History
This section briefly describes the origins of FHA’s property improvement program, the persistent problem of unscrupulous lenders and contractors, and an attempted reform to promote energy efficiency.

A Curious Duality of Objective
The goal of the Title I program was ostensibly the modernization of American homes, but an underlying motive was stimulating the home construction industry and associated manufacturers amid the Great Depression. In doing so, FHA helped revolutionize the relationship between households and financial markets. Similar to how FHA’s 203(b) program made the long-term, fully-amortizing home mortgage with a low downpayment the American standard, the Title I program helped popularize consumer installment credit.

Consumer credit markets are often plagued by imperfect information. Assessing the creditworthiness of thousands of individual customers and monitoring their repayment is substantially more costly than maintaining relationships with large businesses over many repeated transactions. Consequently, consumer credit is rationed (Stiglitz and Weiss, 1981). Credit bureaus were created for retailers and manufacturers to overcome this market failure by sharing information on borrowers. For example, Equifax was founded as the Retail Credit Company in 1898 by two grocers who started selling their list of creditworthy customers to other companies. Nevertheless, commercial banks typically avoided the trouble and perils of consumer lending altogether until the early 20th century (Hyman, 2011). Alternative financial institutions tried to bridge the gap between commercial banks and loan sharks using forms of joint liability. “Morris Plan” banks first appeared in 1910 and required cosigners to vouch for the creditworthiness of the borrower and assume the risk of default. More broadly, the concept of credit unions as member-owned financial cooperatives, often based around a common interest such as a trade union, was imported from Germany (Muchinski and Phillips, 2008). The first credit union in the United States, St. Mary’s Cooperative Credit Association, was created in 1909. Many of these institutions first offered borrowers installment loans, in which a fixed amount of money is borrowed and repaid in regular payments, frequently without collateral.

Manufacturers, particularly automobile companies, also pioneered this new form of credit, often creating their own subsidiary financial companies. General Motors created the General Motors Acceptance Corporation (GMAC) in 1919 to provide wholesale financing for dealers, but they increasingly turned to retail financing for consumers by the mid-1920s. “Modern, pervasive installment credit found its institutional bedrock in the financial innovation of the early automobile industry” (Hyman, 2011: 21). Home appliance manufacturers created similar finance arrangements. American Radiator created the Heating and Plumbing Finance Corporation in
1926, Johns-Mansville, a manufacturer of insulation and roofing material, aggressively marketed its “Million Dollars to Lend” for both its own goods and others. Sears, Roebuck and Co. offered loans of $50 or more for home improvement, requiring a 10 percent downpayment and 8 percent interest repaid over 2 years (Harris, 2012). More typically, property improvement loans required a downpayment of 12 to 20 percent and carried interest rates between 18 and 25 percent, repaid over a period of 12 months (McFarland, 1947). By the end of the decade, consumer loans financed large majorities of furniture, radio, and automobile purchases (Harris, 2009).

Home “modernization” was promoted by civic organizations. Better Homes in America, headed by then-Commerce Secretary Herbert Hoover, was created not only to encourage the production of “sound, beautiful, single-family houses” but also to “encourage the reconditioning and remodeling of older houses” using the latest in building technology and modern appliances (Better Homes in America, 1925). When Hoover became president, he convened the President’s Conference on Home Building and Home Ownership in 1930. The conference promoted the role of property improvement in protecting financial investment, influencing family character, improving family welfare, and upholding community standards. “National well-being is in part indicated by the progress made in the reconditioning, remodeling, and modernization of homes.” (Gries and Ford, 1932: 224).

In the middle of the Great Depression, the conference also acknowledged the economic stimulus of home improvement spending. “[P]ossibilities exist in many communities for creating additional opportunities for employment and for stimulating business in certain lines through development of activity in connection with reconditioning, remodeling, and modernizing of homes. While such work increases employment for workers, it also tends to increase buying power generally, and stimulates sales of materials and services in the construction and allied fields.” (Gries and Ford 1932: 226). By the time the conference report on “Home Repair and Remodeling” was published in 1932, more than 12 million Americans were unemployed, accounting for nearly one-quarter of the civilian workforce (Lebergott, 1948). However, “government” was not listed as a party that should promote home improvement.

In contrast, President Roosevelt’s administration took a more active approach. The Home Owners’ Loan Act of 1933⁹ allowed the Home Owners’ Loan Corporation (HOLC) not only to refinance mortgages but also “in connection with any such exchange, to make advances in cash … to provide for necessary maintenance and make necessary repairs.” This program was expanded to include reconditioning loans for “maintenance, repair, rehabilitation, modernization, rebuilding, and enlargement.”¹⁰ “The dominant objective of this liberalization appears to have been to stimulate the construction industry and business generally, but other ends were sought as well: to provide more aid to home owners, to improve the security for HOLC loans, and possibly to aid in making properties more nearly self-supporting by the addition of income-producing features” (Harriss, 1951: 128). Roughly $5 million was advanced for maintenance and $71 million was loaned to over 361,000 homes (Harriss, 1951).

Building on the HOLC, the National Housing Act of 193411 created FHA to insure new home mortgages and property improvement loans. A key concept of FHA is leveraging private investment through government guarantees in order to stimulate the economy. Marriner Eccles, whom Roosevelt would appoint as chair of the Federal Reserve, outlines the program and describes the Keynesian12 logic of stimulating private investment.

What was to be the first part of the act, or Title I, addressed itself to the modernization of homes and businesses. The details of the program represented a union between Albert Deane’s practical knowledge of the costs of consumer credit and the scheme I advanced to finance that credit. In general terms, the amount of credit that could be authorized was limited to two thousand dollars for each loan. No collateral was required by an applicant for these loans. He was to be granted one on the strength of his character and job prospects alone, as judged by the local lending institution with which he dealt.

Throughout the whole economy the confidence of lending institutions in the credit scheme was to be bolstered by the federal government, which stood ready to absorb losses up to twenty per cent of the aggregate loans that were made by any one institution that qualified as a lending agency. In precise terms, the government could absorb losses up to $200 million. But unlike a relief appropriation of a like amount, the $200 million subsidy in this case would draw into the spending stream $1 billion of private funds. This short-run emergency measure would have the lasting effect of adding to the value of existing properties at a time when debtors got the greatest benefit from their expenditures. This needlessly to say, is the safest condition under which one could go into debt. (Eccles 1951: 149–150)

The Title I program was modeled on Johns-Manville’s home improvement plan. Albert Deane, president of GMAC, served as Deputy FHA Commissioner overseeing the program.

Leveraging private capital was meant to multiply the effectiveness of government spending in stimulating the economy. Former Assistant FHA Commissioner Carter McFarland (1947), writes, “Like other federal legislation of the period affecting housing, Title I is characterized by a curious duality of objective. It was not only a program designed to improve housing standards and conditions; it was also a part of the federal government’s fiscal policy designed to influence the volume, terms and maturities of credit extended to finance real property and, thereby, to stimulate employment. If anything sets Title I apart from other federal housing legislation it is the fact that even more emphasis than usual was placed on the fiscal aspects of the plan, even less on its implications for housing.” Similar to how manufacturers promoted installment credit to bolster sales, the federal government promoted installment credit to boost the economy more generally.

12 Eccles denies being directly influenced by Keynes. “[T]he concepts I formulated, which have been called ‘Keynesian,’ were not abstracted from his books, which I have never read” (Eccles, 1951: 132).
Highlighting its simulative purpose, Title I insurance was initially free to lenders who followed its regulations. Not until 1939 was an insurance premium levied to cover expenses. FHA's insurance covered the full loan amount but was limited to 20 percent of the aggregate insured loan volume disbursed by a lender. This was lowered to 10 percent in 1936. Coverage was capped at 90 percent of the loan amount in 1954. Amendments in 1936 extended eligibility from property owners to lease holders as long as the lease extended at least 6 months beyond the loan maturity date. The maximum interest rate was equivalent to 9.72 percent, less than half the prevailing rate. Loan terms averaged 30 months but could be up to 5 years, and no downpayment or collateral was required (McFarland, 1947).

Original authorization for the Title I program lapsed in 1937. In that time, FHA insured over 1.45 million property improvement loans for a total of $560.6 million (FHA, 1938). FHA, moreover, claimed Title I did not substantially displace existing credit but actually expanded home improvement financing. “From a questionnaire submitted to institutions extending the major portion of these loans, it was ascertained that practically all modernization loans originated solely because of the existence of the plan. This is therefore new additional credit” (FHA, 1935: 8). “Title I contributed to the establishment of conditions favorable to an expansion of installment credit in the field of property improvement. From those considerations we are justified in deducing that a large proportion of Title I loans represented installment loans for property improvement that would not otherwise have been made” (McFarland, 1947: 411). In addition, property improvement loans favored the rehabilitation of the existing housing stock in urban areas over new construction in the suburbs. “The vast majority of Americans who experienced the FHA in the 1930s, ‘40s and ‘50s thus experienced it as an agency that financed old housing in need of repair and not new tract housing in the suburbs” (Glock, 2016: 304).

FHA only accounted for 2 to 3 percent of outstanding consumer installment credit in the United States in the 1930s. Nevertheless, “The fact that the federal government was sponsoring a consumer loan program involving such relatively liberal terms must have played its part in sanctioning liberality of financing in other fields” (McFarland, 1947: 408). This included national banks, which had traditionally avoided consumer credit but accounted for 44 percent of Title I dollar volume (FHA, 1938). “The principal contribution of FHA would seem to be its achievement of what Administrator McDonald called ‘the big thing’—the education of commercial bankers with regard to small character loans amortized on a monthly repayment basis” (Coppock, 1940: 5).

Title I was reauthorized in 1938, and FHA annually endorsed more property improvement loans than home mortgages until the 1960s. A HUD-commissioned report in 1977 proclaims, “The Title I program has been a popular and successful endeavor … Title I stands out as a model for federal-private cooperation” (Foden, Dubinsky, and Hass, 1977: 14). “Deane's success showed what could be done by a person who understood fully what the legislation was meant to do, who was in sympathy with its objectives and was willing to take the hustings and advertise the prospect

13 Pub. L. 76-111.
14 Pub. L. 74-486.
the measure opened to all who owned homes and businesses and needed credit for repairs and improvements." (Eccles, 1951: 159).

**Suede Shoe Salesmen, Racketeers, and Gangsters**

Title I property improvement loans were rarely disbursed directly to the borrower. "Instead the institution most commonly paid the amount borrowed directly to the building contractor or to the seller of equipment with whom the borrower dealt" (Coppock, 1940: 25–26). McFarland (1947) states that 80 percent of loans originated through dealers.

Unfortunately, indirect disbursements deprive the borrower of leverage to ensure that property improvements are completed satisfactorily. Unscrupulous contractors can promise improvements only to abscond with the money, leaving the borrower saddled with debt and shoddy or unfinished work. Writing in FHA’s journal, *Insured Mortgage Portfolio*, Bushman (1945) laments,

> Unfortunately there is a bad class of dealers. While their number is relatively small, the damage they do is disproportionately large. They exist by virtue of lending institutions which are so insatiably hungry for volume that they solicit and accept business without discrimination as to the source and without regard for injury to their own reputation. It must be admitted, with regret, that some banks are among the worst offenders.

These dealers treat Title I as a racket. They look like racketeers, act like racketeers, and use the jargon of racketeers … Dealers and salesmen of this type are floaters, usually going from city to city wherever they hear that the lending institutions are hungry and wide open. Usually they evacuate a territory when the FHA or the district attorney start checking up. Their stock in trade is a smooth tongue and a complete lack of conscience. They will promise anything to make a sale (but not in writing) and their price for a job is limited only by the gullibility of the buyer. They cheat on the price, they cheat on the job, and they cheat on the institutions. (Bushman, 1945: 28)

Dealer loans continued to account for three of four Title I loans in the 1950s (Foden, Dubinsky, and Hass, 1977). The problems with disreputable contractors persisted, however. In a 1955 congressional hearing, Senator Homer Capehart, the Chairman of the Senate Committee on Banking and Currency, rails,

> Over the years ‘suede-shoe salesmen’ and ‘dynamiters’ whose ranks have included racketeers and gangsters have infiltrated this business. They have used fraudulent and deceptive sales practices on thousands of homeowners … Most home repair contractors are both honest and reliable. But the laxity in the administration of the Title I program enabled dishonest people to make illicit profits from owners of small homes who perhaps could least afford the losses.

Foden, Dubinsky, and Hass (1977) attribute declining Title I volume to lower demand for home improvement financing and growth of conventional alternatives, but also doubtful households.
and reforms designed to curb fraud. “In the early fifties, dealer abuses were brought to light, and stricter regulations were enacted to prevent them from recurring. This was a major contributor to a precipitous decline in Title I loans, as doubtful dealer loans were excluded from the program, both because of the new Title I regulations and because of the wariness with which lenders began to view the remodeling industry and dealer lending” (Foden, Dubinsky, and Hass, 1977: 14).

Indirect disbursements continued to account for roughly one-half of Title I improvement loans in the early 1990s. Concerns with dishonest contractors also continued, however. Between 1987 and 1994, the claim rate on dealer loans was 6 percent, compared with 3.5 percent for direct loans (HUD 1997). HUD's inspector general recommended prohibiting dealer loans in 1986, 1995, and 1997.16 A series in The Philadelphia Inquirer documented numerous incidents of shoddy work at inflated prices (Fazlollah and Phillips, 1998a; 1998b; Fazlollah, 2002). An investigation by the Government Accountability Office (1998) found HUD collected limited information on borrower, loan, and property characteristics and conducted limited oversight of program compliance. HUD completed on-site lender reviews of only 2 out of roughly 3,700 lenders in fiscal year 1997. More than one-half of insurance claims lacked required documents, including underwriting information and improvement completion certificates.

Subsequent reforms sharply reduced dealer loans. Direct disbursements to dealers only were banned in 2001, although joint disbursements to borrowers and dealers continue. In addition, lenders are required to confirm with the borrower that the work has been satisfactorily completed.17 Aside from a spike in indirect loans in 2011 and 2012 related to a single lender, dealer loans have been almost driven out of the Title I program.

**PowerSaver Pilot: Retrofit Redux**

In October 2009, the Obama administration released the Recovery through Retrofit report, which noted that the residential sector is responsible for one-fifth of the nation’s carbon dioxide emissions. Existing techniques and technology could reduce home energy use by 40 percent, lower greenhouse gas emissions by 160 million metric tons per year, and save consumers $21 billion annually on energy bills. Households face barriers to modernizing their homes, however, including access to financing. “Homeowners face high upfront costs and many are concerned that they will be prevented from recouping the value of their investment if they choose to sell their home. The upfront costs of home retrofit projects are often beyond the average homeowner's budget” (Middle Class Task Force, 2009: 1). The Consolidated Appropriations Act of 201018 included $50 million for an Energy Innovation Fund, of which one-half was for an Energy Efficient Mortgage Innovation pilot program for single-family homes. In response, HUD modified the Title I property improvement program to include a new “PowerSaver Home Energy Retrofit Loan Pilot Program.”

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18 Pub. Law 111-117.
FHA’s stated goals for the pilot were

(1) To facilitate the testing and scaling of a mainstream mortgage product for home energy retrofit loans that includes liquidity options for lenders, resulting in more affordable and widely available loans than are currently available for home energy retrofits; and (2) to establish a robust set of data on home energy improvements and their impact—on energy savings, borrower income, property value, and other metrics—for the purpose of driving development and expansion of mainstream mortgage products to support home energy retrofits.19

Eligibility was limited to owner-occupants of single-family homes. Initially, eligibility was geographically limited to selection locations that “have already developed a robust home energy efficiency retrofit infrastructure,” but this restriction was lifted in September 2013.20 Improvements had to improve home energy performance or directly make such measures possible. Loans were disbursed in increments, one-half at loan closing and one-half after the property improvements were completed. Initially, the combined value of existing mortgages and the property improvement loan could not exceed 100 percent of the house value as determined by an exterior appraisal; however, this requirement was subsequently repealed. Loan terms were limited to 15 instead of 20 years, except for certain approved improvements. A minimum credit score of 660 was required. The maximum debt-to-income ratio was 45 percent.

Appropriations were used to fund lender incentives, including lowering interest rates and reducing servicing costs. Grants ranged from $140,000 to $2.7 million. Dealer loans were initially not permitted. “The reason for this limitation is that dealer loans have been disproportionately correlated with poor loan performance under Title I and other home improvement loan programs in the past. While HUD recognizes that there are many responsible dealers who can and would provide financing through dealer loans in a responsible manner, it is limiting the Retrofit Pilot Program to ‘direct loans’”.21 The dealer loan ban was later lifted despite this reasoning.

More than 900 loans totaling roughly $9 million were disbursed under the PowerSaver program between September 2011 and July 2015. These loans financed almost $14.9 million in property improvements, particularly heating, cooling, and ventilation systems (34 percent), insulation (30 percent), and solar energy (13 percent). As of April 2022, only 9 loans had defaulted, resulting in cumulative claims of less than $33,900 (prior to debt collection) compared with nearly $392,000 in premium revenue.

The PowerSaver program was unable to gain greater popularity for many of the same reasons that have led the Title I program to decline. Low loan limits limited interest from large national lenders, and existing Title I lenders did not participate because of additional program requirements (e.g., appraisals). Lenders suggested raising loan limits generally and lowering insurance premiums for energy efficiency improvements to increase product uptake.

19 75 FR 69113.
21 75 FR 69117.
Market Share

This section compares FHA-insured improvement loans with other forms of home improvement financing to better understand who relies on Title I.

Data

Information on FHA-insured and other property improvement loans is collected under the Home Mortgage Disclosure Act (HMDA). Loans in HMDA will only be reported as property improvement loans if they are not purchase or refinance loans. This study focused specifically on subordinate liens on one- to four-unit dwellings (including manufactured homes) because most Title I loans are subordinate liens, and this helps to avoid confusion with FHA's 203(k) rehabilitation mortgages, which may also be reported as first lien home improvement loans in HMDA. Some unsecured loans used to be reported under HMDA, but a 2015 rule from the Consumer Financial Protection Bureau adopted a “dwelling-secured standard.”

Exhibit 6 shows FHA’s share of property improvement loan originations reported in HMDA. Consistent with the trend in the number of Title I loans, FHA’s market share declined precipitously in the late 1990s. Subordinate liens can be identified in HMDA starting in 2004 and show a peak of more than 6 percent in 2012 before falling to less than 1 percent by 2018.

Exhibit 6

FHA Subordinate Lien Improvement Loans Market Share, 1990–2020

Source: Home Mortgage Disclosure Act

22 “If a covered loan is a home purchase loan as well as a home improvement loan, a refinancing, or a cash-out refinancing, an institution complies with § 1003.4(a)(3) by reporting the loan as a home purchase loan. If a covered loan is a home improvement loan as well as a refinancing or cash-out refinancing, but the covered loan is not a home purchase loan, an institution complies with § 1003.4(a)(3) by reporting the covered loan as a refinancing or a cash-out refinancing, as appropriate.” 12 CFR 1003.4(a)(3) Comment 3.

23 “The final rule excludes from coverage home improvement loans that are not secured by a dwelling” (RIN3170-AA10: 3).
Exhibit 7 provides descriptive statistics comparing recent Title I loans in FHA’s administrative data with FHA-insured subordinate lien property improvement loans and other home improvement financing options as reported in HMDA. The number of loans reported in HMDA is slightly fewer than in the administrative data, which is expected given exceptions to required disclosures. In addition, the average loan amount, income, and credit score are slightly higher. It is nevertheless clear that Title I loans are more likely to be relied on by lower-income borrowers with lower credit scores and lower property values than alternative financing options.

### Exhibit 7

#### Descriptive Statistics, 2018–20

<table>
<thead>
<tr>
<th></th>
<th>Title I Property Improvement</th>
<th>FHA Subordinate Improvement</th>
<th>Other Subordinate Improvement</th>
<th>First Lien Improvement</th>
<th>HELOC</th>
<th>Cash Out Refinance</th>
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</thead>
<tbody>
<tr>
<td><strong>Loan Amount</strong></td>
<td>$17,234 (6,438)</td>
<td>$19,491 (7,583)</td>
<td>$44,036 (45,081)</td>
<td>$161,431 (213,259)</td>
<td>$104,203 (129,290)</td>
<td>$241,127 (211,688)</td>
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<td><strong>Monthly Income</strong></td>
<td>$5,642 (3,131)</td>
<td>$7,825 (4,047)</td>
<td>$9,479 (6,246)</td>
<td>$7,573 (6,725)</td>
<td>$10,403 (8,609)</td>
<td>$8,475 (6,733)</td>
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<tr>
<td><strong>Missing</strong></td>
<td>0.0%</td>
<td>0.3%</td>
<td>1.6%</td>
<td>2.9%</td>
<td>2.2%</td>
<td>1.7%</td>
</tr>
<tr>
<td><strong>Credit Score</strong></td>
<td>719 (54)</td>
<td>729 (51)</td>
<td>748 (57)</td>
<td>738 (60)</td>
<td>767 (52)</td>
<td>732 (54)</td>
</tr>
<tr>
<td><strong>Missing</strong></td>
<td>8.4%</td>
<td>3.8%</td>
<td>14.7%</td>
<td>14.2%</td>
<td>1.7%</td>
<td>4.6%</td>
</tr>
<tr>
<td><strong>Property Value</strong></td>
<td>$224,557 (125,988)</td>
<td>$321,451 (219,193)</td>
<td>$321,537 (292,463)</td>
<td>$420,005 (359,817)</td>
<td>$386,180 (302,971)</td>
<td></td>
</tr>
<tr>
<td><strong>Missing</strong></td>
<td>100.0%</td>
<td>67.7%</td>
<td>12.7%</td>
<td>12.8%</td>
<td>0.3%</td>
<td>4.1%</td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>82.1%</td>
<td>76.9%</td>
<td>70.6%</td>
<td>67.7%</td>
<td>71.4%</td>
<td>61.7%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>4.0</td>
<td>3.9</td>
<td>5.0</td>
<td>6.6</td>
<td>3.6</td>
<td>6.2</td>
</tr>
<tr>
<td>Black</td>
<td>6.6</td>
<td>5.4</td>
<td>3.6</td>
<td>4.3</td>
<td>2.8</td>
<td>4.1</td>
</tr>
<tr>
<td>Other</td>
<td>4.3</td>
<td>5.6</td>
<td>7.2</td>
<td>6.2</td>
<td>8.5</td>
<td>7.3</td>
</tr>
<tr>
<td>Not Reported</td>
<td>3.1</td>
<td>8.2</td>
<td>13.6</td>
<td>15.3</td>
<td>13.7</td>
<td>20.7</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Co-Borrowers</td>
<td>48.9%</td>
<td>49.8%</td>
<td>56.4%</td>
<td>47.0%</td>
<td>55.7%</td>
<td>48.8%</td>
</tr>
<tr>
<td>Single Male</td>
<td>34.4</td>
<td>33.5</td>
<td>24.7</td>
<td>27.0</td>
<td>24.6</td>
<td>27.4</td>
</tr>
<tr>
<td>Single Female</td>
<td>16.8</td>
<td>15.8</td>
<td>16.0</td>
<td>21.3</td>
<td>16.4</td>
<td>18.6</td>
</tr>
<tr>
<td>Not Reported</td>
<td>0.0</td>
<td>0.9</td>
<td>2.9</td>
<td>4.7</td>
<td>3.3</td>
<td>5.2</td>
</tr>
<tr>
<td><strong>Loans</strong></td>
<td>7,033</td>
<td>5,915</td>
<td>5,037</td>
<td>231,258</td>
<td>115,856</td>
<td>189,596</td>
</tr>
</tbody>
</table>

FHA = Federal Housing Administration. HELOC = home equity line of credit. HMDA = Home Mortgage Disclosure Act.

Notes: Excludes 93 Title I refinances. Dollars adjusted for inflation to 2022 values. Standard deviations shown in parentheses.

Source: Author tabulations of Federal Housing Administration administrative data.
Methodology

This study used logistic regressions to estimate the likelihood of using FHA-insured property improvement loans. First, this analysis compared only FHA and all other subordinate lien property improvement loans between 2007 and 2020 using a binomial logistic regression. However, subordinate liens are not the only method of financing improvements. Borrowers may also obtain first lien property improvement loans as well as extract equity through refinancing. Therefore, this analysis also estimated a multinomial logistic regression,

\[ P(Y = K) = \frac{e^{\beta_{K-1}X}}{1 + \sum_{k=0}^{K-1} e^{\beta_k X}} \]

where

- \( k = 0 \): Subordinate Other Property Improvement Loan
- \( k = 1 \): Subordinate FHA Insured Property Improvement Loan
- \( k = 2 \): First Lien Property Improvement Loan
- \( k = 3 \): Refinance Loan

and \( X \) represents economic conditions and borrower-level characteristics described below.

Beginning in 2018, home equity lines of credit can be distinguished from closed-end property improvement loans, and refinances that extract equity can be distinguished from other refinances. This differentiation allows a refined and expanded classification of financing options.

- \( k = 0 \): Subordinate Other Closed-End Property Improvement Loan
- \( k = 1 \): Subordinate FHA-Insured Closed-End Property Improvement Loan
- \( k = 2 \): First Lien Closed-End Property Improvement Loan
- \( k = 3 \): Home Equity Line of Credit
- \( k = 4 \): Closed-End Cash-Out Refinance Loan

This study used the following borrower-level characteristics to estimate the likelihood of using a particular financing option.

- **Income**: The natural logarithm of borrower income adjusted for inflation. Non-missing values are Winsorized\(^a\) to limit the influence of outliers. Missing income is stochastically imputed using a regression of available reported income on county-level per capita income with state and year fixed effects. A binary variable indicates loans with imputed income.

- **Credit Score**: A numeric indicator of creditworthiness typically ranging between 300 and 850. These data have been available in HMDA since 2018.

- **Property Value**: The natural logarithm of property value adjusted for inflation. Non-missing values are Winsorized to limit the influence of outliers. These data have been available in HMDA since 2018.

\(^a\) Winsorization refers to top- and bottom-coding values at given percentiles. In this case, the top and bottom one percent of income and property values are replaced with 99th and 1st percentiles, respectively.
Race/Ethnicity  A categorical variable indicating whether the borrower (and co-borrower, if applicable) are: non-Hispanic White, Hispanic (any race), non-Hispanic Black, other or two or more races/ethnicities, or race/ethnicity not reported.

Gender  A categorical variable indicating whether the borrowers are: single male, single female, not reported, or more than one borrower.

This research accounted for the interest rate environment that may affect whether a homeowner refinances their primary mortgage rather than obtain a subordinate property improvement loan.

Interest Rate  The median interest rate on an FHA-insured home purchase loan in that month.

Change in Rates  The percentage point change in the median interest rate over the previous 12 months.

This analysis also accounted for county-level economic conditions that may affect the type of credit available.

Application Rate  The number of home purchase mortgage applications in the previous 12 months computed using data from the Home Mortgage Disclosure Act per thousand owner-occupied housing units reported in the 2010 Decennial Census.

Denial Rate  The share of all home purchase mortgage applications denied by lender in previous 12 months computed using data from the Home Mortgage Disclosure Act.

FHA Share  The share of FHA insurance among purchase mortgages originated in the previous 12 months computed using data from the Home Mortgage Disclosure Act.

Unemployment  The average unemployment rate in the previous 12 months reported by the Bureau of Labor Statistics.

Change in Jobs  The percent change in employment over the previous 12 months.

Delinquency Rate  The average share of mortgages 90-days or more delinquent, including foreclosure, in the previous 12 months reported by CoreLogic.

Sales Price  The average price of houses sold in the previous 12 months reported by CoreLogic.

Price Appreciation  The percent change in CoreLogic's single-family house price index over the previous 12 months.

RUCC  The Rural-Urban Continuum Classification of counties by the U.S. Department of Agriculture.
Fixed effects for year and Census Division are also included.

This study used a stratified random sample of the HMDA data in order to facilitate computation. The following sampling rates were applied to the different loan types in the 2007 to 2020 sample.

<table>
<thead>
<tr>
<th>Loan Type</th>
<th>Sampling Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subordinate Other Property Improvement Loan</td>
<td>10.0%</td>
</tr>
<tr>
<td>Subordinate FHA Insured Property Improvement Loan</td>
<td>100.0%</td>
</tr>
<tr>
<td>First Lien Property Improvement Loan</td>
<td>5.0%</td>
</tr>
<tr>
<td>Refinance Loan</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

This method created a sample of nearly 680,000 loans. The following sampling rates were applied to the refined and expanded loan type categories in the 2018 to 2020 sample.

<table>
<thead>
<tr>
<th>Loan Type</th>
<th>Sampling Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subordinate Other Closed-End Property Improvement Loan</td>
<td>100.0%</td>
</tr>
<tr>
<td>Subordinate FHA-Insured Closed-End Property Improvement Loan</td>
<td>100.0%</td>
</tr>
<tr>
<td>First Lien Closed-End Property Improvement Loan</td>
<td>50.0%</td>
</tr>
<tr>
<td>Home Equity Line of Credit</td>
<td>10.0%</td>
</tr>
<tr>
<td>Closed-End Cash-Out Refinance Loan</td>
<td>5.0%</td>
</tr>
</tbody>
</table>

This method created a second sample of roughly 759,000 loans. Weights were applied to account for the differences in sampling rates.

**Findings**

Exhibit 8 presents the results using loan originations between 2007 and 2020. The first three columns show the results of the binomial logistic regression comparing only FHA-insured loans to all other subordinate lien home improvement loans. The last three columns show the same comparison but account for the availability of first lien improvement loans and refinances using a multinomial logistic regression. Exhibit 9 similarly presents the results of a multinomial logistic regression using only 2018 to 2020 originations, comparing FHA-insured loans to other closed-end subordinate lien improvement loans while accounting for the availability of closed-end first lien improvement loans, home equity lines of credit, and cash out refinances. Full results are available in an appendix.
## Exhibit 8

### Odds of FHA Relative to Other Subordinate Lien Improvement Loans, 2007–20

<table>
<thead>
<tr>
<th></th>
<th>Binominal Results</th>
<th>Select Multinomial Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td>Income (Log)</td>
<td>0.747***</td>
<td>0.747***</td>
</tr>
<tr>
<td>Missing/Imputed</td>
<td>0.123***</td>
<td>0.118***</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>0.837***</td>
<td>0.836***</td>
</tr>
<tr>
<td>Black</td>
<td>2.298***</td>
<td>2.296***</td>
</tr>
<tr>
<td>Other</td>
<td>0.910***</td>
<td>0.910***</td>
</tr>
<tr>
<td>Not Reported</td>
<td>0.370***</td>
<td>0.370***</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single Male</td>
<td>1.329***</td>
<td>1.329***</td>
</tr>
<tr>
<td>Single Female</td>
<td>0.949**</td>
<td>0.951**</td>
</tr>
<tr>
<td>Not Reported</td>
<td>1.063</td>
<td>1.056</td>
</tr>
<tr>
<td>Economic Conditions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mortgage Rates</td>
<td>0.725***</td>
<td>0.726***</td>
</tr>
<tr>
<td>Change in Mortgage Rates</td>
<td>1.183***</td>
<td>1.182***</td>
</tr>
<tr>
<td>Application Rate</td>
<td>0.993***</td>
<td>0.993***</td>
</tr>
<tr>
<td>Denial Rate</td>
<td>1.011***</td>
<td>1.011***</td>
</tr>
<tr>
<td>FHA Share</td>
<td>1.029***</td>
<td>1.029***</td>
</tr>
<tr>
<td>Unemployment Rate</td>
<td>1.052***</td>
<td>1.052***</td>
</tr>
<tr>
<td>Employment Change</td>
<td>1.022***</td>
<td>1.022***</td>
</tr>
<tr>
<td>Delinquency Rate</td>
<td>1.074***</td>
<td>1.074***</td>
</tr>
<tr>
<td>Housing Price Change</td>
<td>1.024***</td>
<td></td>
</tr>
<tr>
<td>Average Sales Price (Log)</td>
<td>0.831***</td>
<td></td>
</tr>
<tr>
<td>Observations</td>
<td>255,488</td>
<td>259,594</td>
</tr>
<tr>
<td>LR (\chi^2)</td>
<td>55,747***</td>
<td>56,615***</td>
</tr>
<tr>
<td>AIC</td>
<td>294,888</td>
<td>295,757</td>
</tr>
</tbody>
</table>

AIC = Akaike information criterion. FHA = Federal Housing Administration. LR = likelihood ratio.
Note: Statistically significant at the *** 0.001 ** 0.010 * 0.050 level.
Source: Author tabulations of Federal Housing Administration administrative data
Higher-income borrowers are less generally likely to use FHA-insured loans relative to other subordinate lien home improvement loans. However, that relationship flips in the fourth column of exhibit 8 after accounting for property value, which is only available in HMDA after 2017. Borrowers with lower-valued properties are more likely to use FHA property improvement loans. Conditional on property value, however, lower-income borrowers are more likely to use cash out refinances and HELOCs and less likely to use FHA. On the other hand, borrowers without any reported income are much less likely to use FHA. The results must be interpreted with caution given that roughly two-thirds of FHA loans do not report property value, likely because a property appraisal is not required. Borrowers with lower credit scores (also only available in the second sample) are more likely to rely on FHA.
Minority borrowers are generally less likely to use FHA. Whereas the estimated coefficient associated with Black borrowers is initially positive, the sign flips in the third column of exhibit 9 after accounting for credit score. Controlling for credit score, Black and Hispanic borrowers are less likely to use FHA than any of the alternative possible options for property improvement. FHA is more likely than any alternative to be used by single applicants, particularly single males.

Several of the coefficients associated with economic conditions are not consistent across exhibits 8 and 9 or not statistically significant in the final specifications of exhibit 9, which may be because the second sample relies on a shorter study period with less variation in economic conditions. One consistent finding, however, is that FHA is more relied on than any alternative when and where mortgage delinquency rates are higher.

FHA also has a higher market share in rural counties. Exhibit 10 plots the odds ratios for the first four specifications in exhibit 9. FHA has a larger market share, controlling for borrower characteristics and economic conditions, in smaller metropolitan areas and in counties outside any metropolitan area. In particular, the likelihood of using FHA-insured subordinate lien property improvement loans was roughly 4 times greater in counties not adjacent to a metropolitan area compared with counties in metropolitan areas of over 1 million people (the reference group). FHA accounts for only about 1-in-15 close-end subordinate lien property improvement loans in these counties, however, and only 1-in-500 loans including other financing options.

Exhibit 10
FHA Rural-Urban Odds Ratios

FHA = Federal Housing Administration.
Source: Author tabulations of Federal Housing Administration administrative data

25 The fifth specification had a limited number of observations in several RUCC categories, leading to wide confidence intervals, but had otherwise similar point estimates.
Conclusion

FHA is primarily known for insuring home mortgages; however, assisting the financing of home repairs and improvements was a significant part of the agency’s early history. The Title I property improvement program has declined over several decades due to difficulty monitoring contractors and the quality of their work, loan limits that have not increased since 1994, and antiquated underwriting and processing procedures, as well as the growth of conventional financing alternatives.

Nevertheless, Title I continues to serve particular segments of the home improvement finance market. Similar to its role in the mortgage market, FHA disproportionately serves borrowers with lower credit scores who might have difficulty obtaining conventional credit. In fact, Title I property improvement loans do not have a minimum credit score requirement. Title I also has a higher share in markets with higher delinquency rates when and where conventional credit is often less available, fulfilling FHA’s countercyclical role.

Title I borrowers are also typically lower-income than conventional borrowers. Title I, however, is associated with higher incomes after controlling for property value. This may be due to underwriting standards still focused on ability to repay, whereas conventional options like cash-out refinancing and home equity lines of credit depend more on available home equity. This is also why few Title I borrowers are missing income in HMDA, but most borrowers do not report property value. FHA also offers cash-out refinances and home equity conversion mortgages (also known as “reverse” mortgages) to extract home equity that could be used for property improvements. With 203(k) rehabilitation mortgages, borrowers may finance projects based on the property value after improvements rather than the current, lower value. Title I is unique in offering property improvement loans without requiring an appraisal. This may be why Title I disproportionately serves rural housing markets, where property valuation is more difficult due to fewer sales and a more heterogenous housing stock.

The PowerSaver pilot demonstrates how Title I could be modernized to address energy efficiency and climate change. The residential sector accounts for roughly one-fifth of the total energy consumption (Energy Information Administration, 2022). New construction accounts for roughly only 1 percent of the housing stock each year; therefore, existing homes will need to be renovated to substantially reduce residential energy consumption. According to EnergySage, the installation of a solar panel system costs between $25,000 and $30,000 on average before incentives and rebates (EnergySage, 2021). Even basic retrofits, however, like insulation, new windows and doors, and more energy efficient heating and air conditioning systems can make a meaningful difference not only in a homeowner’s carbon footprint but also their utility bills.

Title I also has the potential to help finance the construction of accessory dwelling units (ADUs) to ameliorate the nation’s lack of affordable housing. World War II provides a precedent for how the program could be modified to address a housing shortage. The maximum loan limit on multifamily homes was doubled in 1941 to promote converting single-family homes into multifamily to accommodate the influx of defense workers (Harris, 2012). According to the National Association of Home Builders (Emrath, 2019), three-fourths of ADU projects cost at least $50,000, including 28 percent that cost $150,000 or more. The current loan limit formula, however, is only $25,000
for a single-family home or $12,000 per unit up to $60,000, which results in a lower limit for a two-unit property than a single-family property.

Regardless, Title I regulations follow Title II in classifying ADU tenants as boarders in a single-family home, requiring 2 years of rental payment history in order to be included in effective borrower income. For comparison, Title II regulations permit including rental income of two- to four-unit properties in effective income based on operating income, lease agreements, or fair market rent. The distinction between ADU and second unit is vague but has important consequences for access to credit.\footnote{FHA’s Single-Family Handbook states, “As part of the highest and best use analysis, the Appraiser must make the determination to classify the Property as a Single Family dwelling with an ADU, or a two-family dwelling. The conclusion of the highest and best use analysis will then determine the classification of the Property and the analysis and reporting required … An ADU is usually subordinate in size, location and appearance to the primary Dwelling Unit and may or may not have separately metered utilities or separate means of ingress or egress” (FHA, 2022: 585).} Allowing homeowners to effectively borrow against future rental payments may allow them to finance the construction on ADUs and expand housing supply, even if they currently lack sufficient income and home equity to cover the costs of conversion. More research is needed on the performance of mortgages on homes with ADUs to understand whether and how rental income should be incorporated into underwriting standards.

Acknowledgments
I would like to thank Patricia McBarron for invaluable help understanding the Title I program and history.

Author
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References


