United States Government Accountability Office
Report to Congressional Requesters

July 2021

NATIONAL FLOOD INSURANCE PROGRAM

Congress Should Consider Updating the Mandatory Purchase Requirement

GAO@100
A Century of Non-Partisan Fact-Based Work

GAO-21-578

GAO@100 **Highlights**

Highlights of GAO-21-578, a report to congressional requesters

July 2021

NATIONAL FLOOD INSURANCE PROGRAM

Congress Should Consider Updating the Mandatory Purchase Requirement

Why GAO Did This Study

Flood insurance plays a key role in helping homeowners reduce the financial effects of floods, reduces the need for federal disaster assistance, and lowers costs for American taxpayers. NFIP makes federally backed flood insurance available to property owners in qualifying communities. The mandatory purchase requirement requires property owners in NFIP communities to purchase flood insurance if, among other things, they have mortgages from federally regulated lenders.

GAO was asked to review the implementation of the mandatory purchase requirement. This report (1) describes federal entities' oversight of the requirement, (2) examines the extent to which FEMA uses information about compliance with the requirement, and (3) examines the use of FEMA floodplain maps to determine who must purchase flood insurance. GAO reviewed documentation from federal entities, analyzed data on lender violations of the requirement, and interviewed officials and other stakeholders.

What GAO Recommends

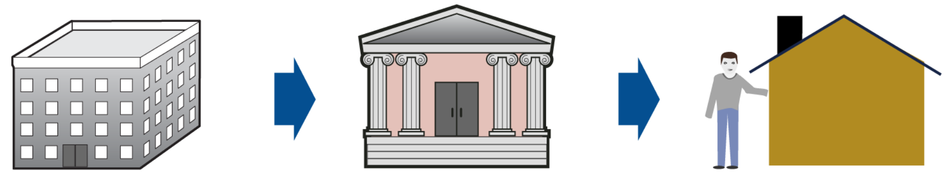
Congress should consider requiring FEMA to evaluate how its new flood risk information could be used to determine which properties should be subject to the requirement and report to Congress on any recommendations. GAO also is making two recommendations to FEMA, including that FEMA use information related to the requirement to increase consumer participation in the flood insurance market. FEMA agreed with the recommendations.

View GAO-21-578. For more information, contact Alicia Puente Cackley at (202) 512-8678 or cackleya@gao.gov.

What GAO Found

The mandatory purchase requirement mandates flood insurance for certain high-risk properties and was established to increase the number of households with flood insurance. Lenders must verify that certain properties have flood insurance. At least 10 federal entities oversee lenders' compliance, including the federal banking regulators, among others (see figure). The most frequent violation the regulators identified was related to a lack of or insufficient flood insurance coverage for properties subject to the requirement. If regulators identify violations, lenders are required to take corrective actions, and if a pattern or practice of certain flood insurance violations is found, monetary penalties may be assessed against them.

Oversight of the Mandatory Purchase Requirement



At least 10 federal entities oversee lender compliance.

Lenders require and monitor flood insurance coverage.

Property owners in high-risk flood areas purchase and maintain flood insurance.

Source: GAO analysis of National Flood Insurance Program legislation. | GAO-21-578

The Federal Emergency Management Agency (FEMA), which administers the National Flood Insurance Program (NFIP), engages in a variety of efforts to help increase consumer participation in the flood insurance market (one of the agency's goals). However, FEMA does not effectively use information related to compliance with the requirement to identify ways to meet this goal. Information currently maintained by FEMA and other federal entities could help inform FEMA on noncompliance trends and patterns and help FEMA to develop strategies to address them. By using internal and external information to better understand compliance with the requirement, and facilitating the sharing of this information among the federal entities with responsibilities related to the requirement, FEMA may help reduce instances of noncompliance, increase consumer participation, and limit the federal government's fiscal exposure to future flood losses.

FEMA's floodplain maps—which, by law, delineate those properties subject to the requirement—have limitations. For example, they may not reflect current flood hazards or the potential for flooding from some types of events, such as heavy rainfall. FEMA has efforts underway that can assess flood risk more comprehensively. However, FEMA has not evaluated how the new information could be incorporated into the requirement because the agency believes it has a limited role in implementing the requirement. In addition, changes to the maps for the purpose of implementing the requirement could impact other aspects of NFIP. An evaluation by FEMA of how its new flood risk information could be used to designate which properties are subject to the requirement could help Congress revise the requirement to better increase consumer participation and reduce future federal disaster assistance expenditures.

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Abbreviations

1994 Reform Act	National Flood Insurance Reform Act of 1994
Biggert-Waters Act	Biggert-Waters Flood Insurance Reform Act of 2012
enterprises	government-sponsored enterprises
FDIC	Federal Deposit Insurance Corporation
Federal Reserve	Board of Governors of the Federal Reserve System
FEMA	Federal Emergency Management Agency
FHA	Federal Housing Administration
FHFA	Federal Housing Finance Agency
HUD	Department of Housing and Urban Development
NAIC	National Association of Insurance Commissioners
NCUA	National Credit Union Administration
NFIP	National Flood Insurance Program
OCC	Office of the Comptroller of the Currency
OIG	Office of Inspector General
USDA	U.S. Department of Agriculture
VA	Department of Veterans Affairs

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Congressional Requesters

Floods are the most frequent natural disaster in the United States, causing billions of dollars of damage annually. However, many homeowners lack flood insurance despite being exposed to the financial risk of flooding. Congress created the National Flood Insurance Program (NFIP) in 1968 to offer flood insurance coverage and to help reduce the escalating costs of providing federal assistance to repair damaged homes and businesses. The program—which is administered by the Federal Emergency Management Agency (FEMA), within the Department of Homeland Security—combines flood hazard mitigation efforts and insurance to protect homeowners against losses from floods and provides incentives for communities to adopt floodplain management ordinances to mitigate flood risk.

For the first 5 years of the program, the purchase of flood insurance was voluntary. However, in 1973, Congress passed the Flood Disaster Protection Act, which created the mandatory purchase requirement, whereby homeowners of certain properties located in special flood hazard areas must purchase and maintain flood insurance.[1] Homeowners with federally backed mortgages are subject to the requirement and must purchase and maintain adequate flood insurance for the duration of the mortgage loan.[2] Federally backed mortgages are those made, insured, or

[1]42 U.S.C § 4012a. For the purposes of this report, we use the term mandatory purchase requirement to collectively refer to the requirement for property owners with federally backed mortgages on properties located in special flood hazard areas to purchase and maintain adequate flood insurance in the amount required and the various other requirements lenders must meet to comply with the requirement including notice, escrow, and force-placement requirements. A separate mandatory purchase requirement applies to recipients of federal financial assistance for repair or replacement of buildings, manufactured homes, and personal property in special flood hazard areas as a result of disasters. A review of this requirement was beyond the scope of our report. Special flood hazard areas represent land areas that would be submerged by the floodwaters of the “base flood” or a flood that has a 1 percent chance of being equaled or exceeded in any given year. NFIP offers flood insurance to communities that participate in the program, and the mandatory purchase requirement only applies where federal flood insurance is available.

[2]To maintain flood insurance means the amount of insurance must be at least equal to the lesser of the outstanding principal balance of the designated loan or the maximum limit of coverage available for the particular type of property. 42 U.S.C. § 4012a.

guaranteed by federally regulated lenders or federal agencies, or purchased by the government-sponsored enterprises (enterprises) for housing—Fannie Mae and Freddie Mac.[3] The mandatory purchase requirement does not apply to all properties located in special flood hazard areas, such as those that do not have mortgage loans.[4]

Congress enacted the mandatory purchase requirement to encourage more communities to join NFIP and to increase the number of homeowners with flood insurance, as well as to decrease federal disaster assistance expenditures resulting from floods. However, in the nearly 50 years since Congress enacted the requirement, increasing consumer participation in the flood insurance market remains challenging. We have reported previously on how the requirement could help to increase consumer participation in the flood insurance market.[5] In addition, we and others have acknowledged that challenges exist with estimating a national comprehensive rate of compliance with the mandatory purchase requirement.[6]

We have also reported on the financial challenges facing NFIP, including the significant volume of program debt resulting from insufficient premium

[3]The enterprises are congressionally chartered, for-profit, shareholder-owned companies that have been under federal conservatorship since 2008. The Federal Housing Finance Agency (FHFA) was created by the Housing and Economic Recovery Act of 2008 to supervise and regulate the enterprises and the Federal Home Loan Bank System. Pub. L. No. 110-289, § 1101, 122 Stat. 2654, 2661 (codified at 12 U.S.C. § 4511). FHFA has a statutory responsibility to ensure that the enterprises operate in a safe and sound manner and that the operations and activities of each regulated entity foster liquid, efficient, competitive, and resilient national housing finance markets. On September 6, 2008, FHFA placed the enterprises into conservatorship due to a substantial deterioration in the enterprises' financial condition. For the purpose of this report, we refer to the enterprises as "federal entities."

[4]The mandatory purchase requirement also does not apply to lenders that do not issue federally backed mortgages.

[5]GAO, *Flood Insurance: Comprehensive Reform Could Improve Solvency and Enhance Resilience*, GAO-17-425 (Washington, D.C.: Apr. 27, 2017).

[6]GAO, *Flood Insurance: Extent of Noncompliance with Purchase Requirements Is Unknown*, GAO-02-396 (Washington, D.C.: June 21, 2002).

rates.[7] NFIP has been on our High-Risk List since 2006, and we have recommended that Congress consider comprehensive reform to the program to help reduce federal fiscal exposure and improve the nation's resilience to floods.[8] Further, because of changes in sea level and climatological patterns and increased development in floodplains, the risk of flood damage likely will grow. In 2013, we included the federal government's fiscal exposure to climate change risks in our High-Risk List, citing the rising number of natural disasters and increasing reliance on federal assistance as key sources of federal fiscal exposure.[9] More recently, in November 2020, the Board of Governors of the Federal Reserve System (Federal Reserve) identified climate change as a risk to financial stability that is likely to increase through real estate exposures, such as homes in flood-prone areas.[10]

As Congress considers reforms to NFIP, you asked us to review the implementation of the mandatory purchase requirement. This report (1) describes federal entities' oversight of compliance with the mandatory purchase requirement, (2) examines the extent to which FEMA uses information about compliance with the requirement to help increase consumer participation in the flood insurance market, and (3) examines

[7]By design, NFIP does not operate for profit. Instead, the program must meet a public policy goal: to provide flood insurance in flood-prone areas to property owners who otherwise would not be able to obtain it. For information on the financial challenges of NFIP, see GAO, *Fiscal Exposures: Federal Insurance and Other Activities That Transfer Risk or Losses to the Government*, GAO-19-353 (Washington, D.C.: Mar. 27, 2019); GAO-17-425; *National Flood Insurance Program: Continued Progress Needed to Fully Address Prior GAO Recommendations on Rate-Setting Methods*, GAO-16-59 (Washington, D.C.: Mar. 17, 2016); *National Flood Insurance Program: Options for Providing Affordability Assistance*, GAO-16-190 (Washington, D.C.: Feb. 10, 2016); and *Flood Insurance: Status of FEMA's Implementation of the Biggert-Waters Act, as Amended*, GAO-15-178 (Washington, D.C.: Feb. 19, 2015).

[8]GAO, *High-Risk Series: Dedicated Leadership Needed to Address Limited Progress in Most High-Risk Areas*, GAO-21-119SP (Washington, D.C.: Mar. 2, 2021) and GAO-17-425. As of July 2021, Congress had not passed comprehensive reform to NFIP since we recommended it consider doing so in April 2017.

[9]GAO, *High-Risk Series: An Update*, GAO-13-283 (Washington, D.C.: Feb. 14, 2013).

[10]Board of Governors of the Federal Reserve System, *Financial Stability Report* (Washington, D.C.: Nov. 9, 2020).

the use of FEMA floodplain maps to determine who must purchase flood insurance.[11]

To address our first objective, we reviewed the relevant statutes implementing the mandatory purchase requirement to determine which federal entities have responsibilities to implement the requirement. We identified the following entities with responsibilities: the enterprises; the Farm Credit Administration; FEMA; the prudential regulators, which include the Federal Reserve, the Federal Deposit Insurance Corporation (FDIC), the Office of the Comptroller of the Currency (OCC), and the National Credit Union Administration (NCUA); the U.S. Department of Agriculture (USDA); the Department of Veterans Affairs (VA); and the Federal Housing Administration (FHA).[12]

For those entities, we reviewed relevant documentation on their policies and procedures for implementing the requirement and conducting oversight activities. We analyzed nonpublic data provided by the prudential regulators, the enterprises, and FHA on lenders' violations of the mandatory purchase requirement from 2016 through 2019 and analyzed publically available information on civil money penalties assessed by the prudential regulators from 2016 through 2020.[13] We assessed the reliability of these data by interviewing knowledgeable officials, reviewing related documentation, and performing data tests, and we determined the data were reliable for our purpose of reporting on lender violations. We also interviewed officials from each of the federal entities with responsibilities to implement the requirement and representatives of lenders, mortgage servicers, flood service companies, research organizations, and industry experts.

[11]We use the term "FEMA floodplain maps" to refer to the Flood Insurance Rate Maps that FEMA develops. Flood Insurance Rate Maps are the official maps of communities on which FEMA has delineated the special flood hazard areas, the base flood elevations, and the risk premium zones applicable to the community.

[12]For USDA, our review focuses on the oversight activities of Rural Development's Rural Housing Service, as this is the agency that operates relevant mortgage programs.

[13]Information on noncompliance for FHA was from May 2017 through December 2019 because the agency made changes to its lender and loan monitoring data systems, and officials told us that information from prior to May 2017 would not be reliable. USDA officials told us that as of May 2021 they had no open compliance findings related to the mandatory purchase requirement. In addition, VA officials told us that they do not maintain data granular enough to identify violations specific to the mandatory purchase requirement.

To address our second objective, we reviewed agency documentation, including FEMA's 2018–2022 strategic plan, and information on agreements between FEMA and other federal entities to share NFIP policy data. We also reviewed our previous work and reports and studies done by federal agencies, inspectors general, and research organizations to understand challenges associated with determining the level of compliance with the mandatory purchase requirement. We analyzed FEMA data on NFIP policies to estimate how long policies for newly purchased single-family properties located in special flood hazard areas were maintained after they were originated. This analysis examined NFIP policies originated from 2014 through 2018. We assessed the reliability of the data and determined they were sufficiently reliable for the purpose of estimating the length of time NFIP policies on properties located in special flood hazard areas were maintained.

We also interviewed the federal entities that implement the requirement to learn about the information they use and efforts they undertake to understand the level of compliance with the mandatory purchase requirement for the lenders they oversee, and we reviewed available documentation on these efforts. We compared our findings against principles identified in GAO's Disaster Resilience Framework, which is designed to support analysis of federal opportunities to facilitate and promote resilience to natural hazards, and criteria related to federal evidence-building activities.[14]

To address our third objective, we reviewed statutory and regulatory requirements related to the mandatory purchase requirement and FEMA floodplain maps. We also reviewed FEMA documentation on its flood hazard mapping efforts and reports of the Technical Mapping Advisory Council, and we interviewed FEMA officials.[15] We reviewed FEMA's efforts to develop comprehensive flood risk information by reviewing agency documentation and interviewing agency officials. We also reviewed studies from nonprofit organizations to understand the factors that affect flood risk and advances in flood hazard modeling techniques.

[14]GAO, *Disaster Resilience Framework: Principles for Analyzing Federal Efforts to Facilitate and Promote Resilience to Natural Disasters*, GAO-20-100SP (Washington, D.C.: Oct. 23, 2019).

[15]The Biggert-Waters Flood Insurance Reform Act of 2012 established the Technical Mapping Advisory Council to review and make recommendations to FEMA on matters related to the national flood mapping program. Pub. L. No. 112-141, div. F, title II, § 100215, 126 Stat. 405, 924 (codified at 42 U.S.C. § 4101a).

We interviewed representatives of a flood modeling organization, flood industry trade organizations, industry specialists, and researchers. We assessed our findings against principles identified in GAO's Disaster Resilience Framework.[16] Appendix I contains a detailed description of our scope and methodology.

We conducted this performance audit from June 2019 to July 2021 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

National Flood Insurance Program

FEMA is the primary federal agency responsible for assisting state and local governments, private entities, and individuals to prepare for, mitigate, respond to, and recover from natural disasters, including floods. NFIP has served as a key component of FEMA's efforts to minimize or mitigate the damage and financial impact of floods on property owners, as well as to limit federal expenditures needed after floods occur. FEMA's Federal Insurance and Mitigation Administration manages NFIP. NFIP seeks to minimize flood-related property losses by making flood insurance available on reasonable terms and encouraging its purchase. According to FEMA, experience has shown repeatedly that households, communities, and businesses that manage risk through insurance recover faster and more fully after a disaster. Flood insurance also reduces the need for federal disaster assistance and lowers costs for American taxpayers.

Community participation in NFIP is voluntary. However, for a community's residents to purchase flood insurance through the program, the community must participate by agreeing to enforce regulations for land use, building standards, and new construction in special flood hazard areas. Participating communities must also adopt and enforce state and

[16]GAO-20-100SP.

community floodplain management regulations to reduce future flood damage.[17]

Under NFIP, the government assumes the liability for the insurance coverage and sets rates and coverage limitations. NFIP generally is expected to cover its claim payments and operating expenses with the premiums it collects, but it has had to use its authority to borrow funds from the U.S. Treasury to cover large shortfalls. Until 2004, NFIP was able to cover most claims with premiums it collected and occasional loans from the U.S. Treasury that it repaid. However, since 2004, NFIP has had to borrow from the U.S Treasury to pay claims, partly due to extraordinary catastrophic losses from major natural disasters, including Hurricane Katrina and Superstorm Sandy. As of August 2020, FEMA's debt was $20.5 billion, despite Congress having canceled $16 billion in debt in October 2017.

FEMA Floodplain Maps

As part of its role in administering NFIP, FEMA develops Flood Insurance Rate Maps (which we refer to as FEMA floodplain maps). Among other things, these maps provide the basis for identifying which properties are subject to the mandatory purchase requirement by delineating the boundaries of special flood hazard areas. Through NFIP, FEMA maps flood hazards across the country and assigns flood zone designations based on risk levels.[18] Flood zones considered high-risk areas and high-risk coastal areas are both special flood hazard areas and subject to the

[17]For additional information on FEMA's enforcement of key NFIP requirements for communities, see GAO, *National Flood Insurance Program: FEMA Can Improve Community Oversight and Data Sharing*, GAO-20-396 (Washington, D.C.: May 5, 2020). Participating communities must adopt and enforce minimum floodplain management regulations that (1) require all new development proposals in the special flood hazard area to obtain a permit, (2) prohibit new development in floodways if it increases flood heights, and (3) require all new construction or substantially improved or damaged structures in the special flood hazard area to be elevated so that the lowest floor is at or above base flood elevation. NFIP uses an elevation certificate to provide elevation information necessary to ensure compliance with community floodplain management ordinances and to assist with other aspects of NFIP. The elevation certificate must document that the lowest floor including the basement of the residential building, and all related improvements/equipment essential to the value of the property, is built at or above the 100-year flood elevation in compliance with NFIP criteria, and insurance under NFIP is obtained.

[18]Flood zones are geographic areas that FEMA has defined according to levels of flood hazard and are depicted on a community's floodplain map. NFIP flood zones can be divided into three main categories: low- to moderate-risk areas, high-risk areas, and high-risk coastal areas.

mandatory purchase requirement. The development and adoption of FEMA's floodplain maps is a regulatory process involving extensive collection and analysis of relevant environmental data, as well as a public review process.[19]

In addition to identifying which properties are subject to the mandatory purchase requirement, FEMA floodplain maps serve as the basis for local floodplain management standards that communities must adopt and enforce as part of their NFIP participation.[20] FEMA's floodplain maps include input from state, local, tribal, and territorial communities and their partners to ensure that local knowledge, areas of concern, and data sources are incorporated.

FEMA produces both regulatory and nonregulatory flood map products. Regulatory flood map products, such as FEMA floodplain maps, are intended to be used as the basis for official actions required by NFIP, such as designating the special flood hazard areas. Nonregulatory flood map products go beyond the basic flood hazard information required in the regulatory products and can be used as supplemental information to inform decision-making at the federal, state, and local levels.[21]

Mandatory Purchase Requirement and Federal Entities' Responsibilities

The mandatory purchase requirement generally applies to property owners with homes located in the special flood hazard area of communities participating in NFIP, if the property owner has a mortgage loan that was (1) issued by a federally regulated lender; (2) made,

[19]For example, see 44 C.F.R Part 66 ("Consultation with Local Officials") and 44 C.F.R Part 67 ("Appeals from Proposed Flood Elevation Determinations").

[20]FEMA floodplain maps are also used to set NFIP premium rates. However, as explained later in this report, FEMA is implementing a new methodology for setting NFIP premium rates that will no longer use FEMA floodplain maps.

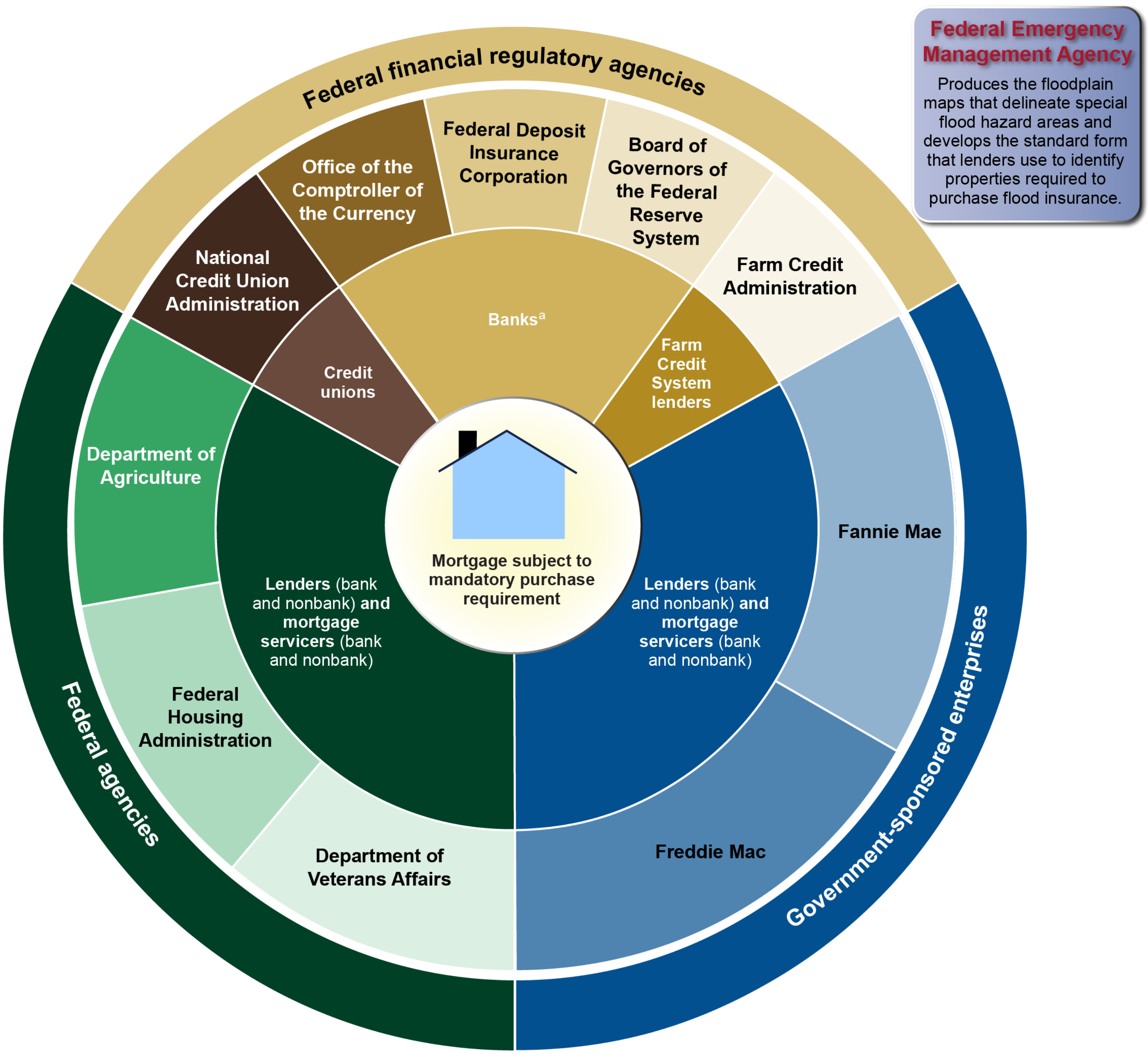
[21]We have ongoing work evaluating FEMA's flood hazard mapping efforts that we anticipate issuing later in 2021.

insured, or guaranteed by FHA, USDA, or VA; or (3) purchased by one of the enterprises.[22]

A number of federal entities play a role in implementing and enforcing the mandatory purchase requirement (see fig. 1). FEMA administers NFIP but has a limited statutory role with respect to the mandatory purchase requirement. FEMA produces the floodplain maps that delineate special flood hazard areas where the mandatory purchase requirement applies, and it develops the form lenders use to determine whether a given property is required to purchase flood insurance. However, FEMA does not have authority to enforce lender compliance with the requirement.

[22]Not all properties located in special flood hazard areas are subject to the mandatory purchase requirement. For example, a personal mortgage loan between two private parties (such as between family members), or a mortgage issued by a private mortgage company that is not then sold on the secondary market to a bank or entity like Fannie Mae, may not require flood insurance. Even if not technically required to mandate flood insurance by federal law, the issuing party may still require it as a means of financially securing the mortgage loan. Further, some property owners may be able to remove the designation of being located in a special flood hazard area (and thus, the requirement to purchase flood insurance). For instance, there are FEMA processes such, as the Letter of Map Amendment and Letter of Map Revision processes, through which an individual who owns, rents, or leases property may submit certain mapping and survey information to FEMA and request that FEMA issue a document that officially removes a property or structure from the special flood hazard area.

Figure 1: Federal Entities That Implement the Mandatory Purchase Requirement



Source: GAO analysis of National Flood Insurance Program legislation and relevant federal regulations. | GAO-21-578

[a]Both the Federal Deposit Insurance Corporation and the Office of the Comptroller of the Currency also oversee thrifts for compliance with the mandatory purchase requirement.

The prudential regulators and the Farm Credit Administration regulate and oversee lenders that originate and service mortgage loans subject to the mandatory purchase requirement.[23] These agencies are responsible for enforcing the requirement among their regulated lenders. They conduct risk-based supervision of the lenders they oversee through examinations.

The enterprises participate in the secondary mortgage market by purchasing mortgages that meet their criteria and forming pools of them, which then serve as collateral for mortgage-backed securities that are sold to investors.[24] In exchange for a fee, they guarantee the timely payment of interest and principal on mortgage-backed securities they issue. The enterprises have no regulatory authority over the institutions that sell loans to them (sellers) or that service the loans they purchase (servicers). Rather, the enterprises are required to implement procedures reasonably designed to ensure that loans purchased have flood insurance if the loans are secured by improved real estate located in a special flood hazard area.[25] The enterprises impose flood insurance requirements on the primary lenders and the servicers as a condition of purchasing and servicing loans. Thus, loans not made by federally

[23]The Farm Credit Administration regulates the Farm Credit System, which is a government-sponsored enterprise established, in part, to provide sound, adequate, and constructive credit to American farmers and ranchers. According to the most recent available Farm Credit Administration data, as of December 31, 2020, approximately 30 percent of the loans made by its regulated entities were for real estate purposes and may be subject to the mandatory purchase requirement. Officials said that most of their regulated institutions' lending is for agricultural loans on bare land and therefore not subject to the requirement. Regulated entities of the prudential regulators include depository institutions such as banks, thrifts, and insured credit unions. Regulated entities of the Farm Credit Administration include Farm Credit System associations. Throughout the report we refer to these regulated entities collectively as lenders.

[24]The U.S. markets for single-family housing finance are complex and have numerous public and private participants. The housing finance markets include a primary market, in which lenders make loans to borrowers, and a secondary market, in which mortgage loans are purchased from lenders and serve as collateral for securities that are sold to investors. Thus, a single mortgage is often owned or held by many different parties before the mortgage terminates.

[25]42 U.S.C. § 4012a (b)(3). Improved real estate means real estate upon which a building is located. 42 U.S.C. § 4003(a)(8).

regulated lenders are subject to the mandatory purchase requirement if they are sold to either of the enterprises.[26]

FHA, USDA, and VA operate mortgage guarantee and insurance programs to promote homeownership for certain types of borrowers.[27] Each agency offers programs that insure mortgages against default or guarantee lenders payment of principal and interest.[28] Mortgages made under these programs are subject to the mandatory purchase requirement.[29] The agencies may not provide financial assistance, including the insurance or guarantee of mortgages, for the acquisition, construction, reconstruction, repair, or improvement of a property in a

[26]The mandatory purchase requirement only applies to federally backed mortgages and, therefore, does not apply to mortgages issued by certain institutions, such as nonbank financial institutions. In the first quarter of 2020, Inside Mortgage Finance estimated that nonbanks accounted for 63 percent of first-lien mortgages issued by the top 100 mortgage lenders. Nonbanks sell the vast majority of their loans. According to an analysis conducted by FDIC, in the first three quarters of 2017, nonbanks sold about 97 percent of their loans, with about 34 percent being sold to the enterprises and about 21 percent sold into securitizations guaranteed by Ginnie Mae. See Federal Deposit Insurance Corporation, "Trends in Mortgage Origination and Servicing: Nonbanks in the Post Crisis Period," *FDIC Quarterly*, vol. 13, no. 4 (2019).

[27]Ginnie Mae plays an important role supporting federal housing initiatives by increasing liquidity in the secondary mortgage market. It guarantees the timely payment of principal and interest on mortgage-backed securities issued primarily by financial institutions and backed by pools of federally insured or guaranteed mortgages, including those insured or guaranteed by FHA, USDA, and VA, among others. Ginnie Mae does not have direct responsibility for ensuring compliance with the mandatory purchase requirement, as that responsibility falls on lenders and mortgage servicers, per the requirements of the federal agencies that insure or guarantee the loan. The Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010), created the Consumer Financial Protection Bureau and provided it with supervisory and enforcement authority over certain financial institutions and for certain federal consumer financial laws, which do not include the mandatory purchase requirement imposed by the Flood Disaster Protection Act.

[28]FHA's single-family mortgage insurance program guarantees 100 percent of the mortgage, and FHA refers to its guarantee fees as insurance premiums.VA generally guarantees 25 percent of the mortgage amount but can guarantee up to 50 percent of the mortgage amount for smaller loans. The Rural Housing Service guarantees up to 90 percent of the mortgage. Rural Housing Service also has a direct loan program designed to help low-income individuals purchase houses in rural areas. Funds can also be used to build, repair, or renovate a house, among other things. The program provides fixed-interest mortgage financing to low-income families who are unable to obtain credit elsewhere. These loans are also subject to the mandatory purchase requirement.

[29]42 U.S.C. § 4012a(a).

special flood hazard area unless flood insurance is purchased and maintained to protect the property securing the loan.[30]

Lender Compliance with the Mandatory Purchase Requirement

Lenders of federally backed mortgage loans are responsible for compliance with the mandatory purchase requirement.[31] Specifically, these lenders are responsible for ensuring, when required, that property owners purchase flood insurance when they obtain the mortgage and maintain the insurance throughout the life of the loan while the property remains in a special flood hazard area, or that property owners purchase flood insurance if the property is later mapped into a special flood hazard area. Lenders must determine if a building is in a special flood hazard area, and they can use flood determination companies to make this decision for them.[32] Determinations of properties' flood zones are based on FEMA's floodplain maps. Lenders or the flood determination companies record the results of their determinations on a standardized form developed by FEMA, and lenders are required to maintain it. Throughout the life of the loan, lenders may monitor these mortgages to ensure they maintain flood insurance. If lenders find that property owners have allowed their flood insurance policy to lapse or have a policy with insufficient coverage, they are required to force-place insurance—that is, purchase insurance on behalf of the property owner and charge the

30Federal agencies such as FHA and VA will not make, subsidize, insure, or guarantee any loan if the property securing the loan is in a special flood hazard area of a community not participating in NFIP.

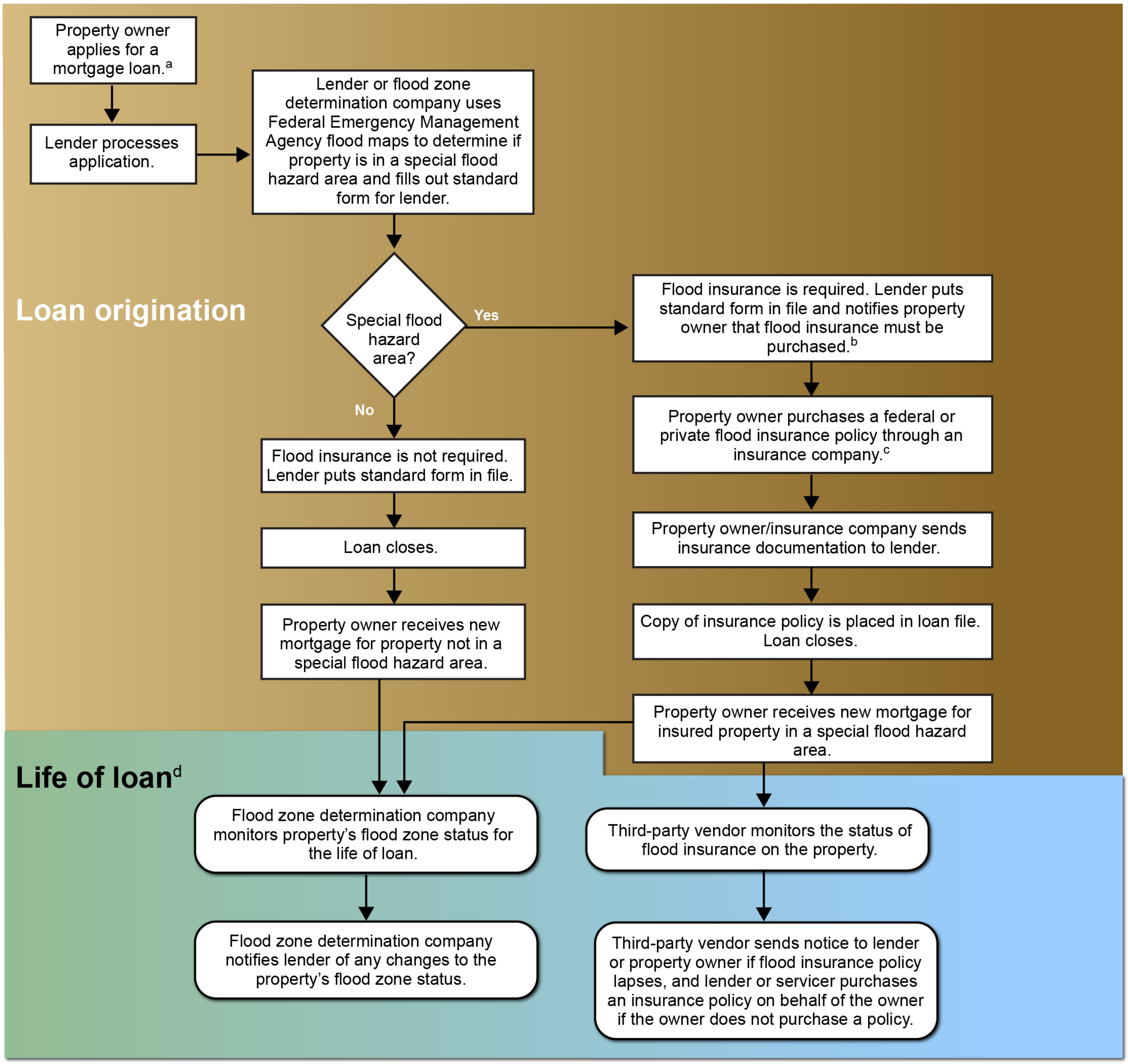
31Lenders may service loans themselves, but if loan servicing responsibilities are transferred, the servicer monitors loans for compliance with the mandatory purchase requirement and ensures that flood insurance coverage is maintained over the life of the loan. Mortgage servicers perform various loan management functions, including collecting payments from the borrower until the mortgage debt is satisfied or terminated, sending borrowers monthly account statements and tax documents, responding to customer service inquiries, maintaining escrow accounts for property taxes and hazard insurance, and forwarding monthly mortgage payments to the loan owners.

32Flood determinations are typically made when a lender makes, increases, extends, or renews a loan. Lenders are not required to use loan monitoring services and can conduct their own monitoring, but many lenders do use these services to monitor for floodplain map changes.

owner for the premium.[33] Some lenders hire third-party vendors to monitor the status of flood insurance policies on their loans and force-place insurance if necessary. Figure 2 outlines the typical process lenders use for maintaining compliance with the mandatory purchase requirement during loan origination and for the life of the loan.

[33]If a lender determines that a flood insurance policy has lapsed or is deficient at any time during the life of the loan, the lender must send a notice of coverage lapse to the borrower. If the borrower does not purchase adequate flood insurance coverage within 45 days, the lender is required to place a flood insurance policy on the loan. If the borrower subsequently purchases adequate flood insurance, the force-placed policy will be rescinded. In 2015, we reported on the state of the lender-placed insurance market. We made two recommendations to the National Association of Insurance Commissioners to work with state insurance regulators to implement policies to help collect more complete and reliable data from lender-placed insurers and to obtain more detailed national data from these insurers. Both recommendations were implemented. See GAO, *Lender-Placed Insurance: More Robust Data Could Improve Oversight*, GAO-15-631 (Washington, D.C.: Sept. 8, 2015).

Figure 2: Typical Process for a Lender's Compliance with the Mandatory Purchase Requirement



Source: GAO analysis of documentation on lender requirements related to the mandatory purchase requirement and interviews with lenders and flood service companies. | GAO-21-578

[a]For the purposes of this figure, we use the term “property owner” to refer to the mortgagor who receives a loan for the purchase of a property.

[b]Not all properties located in special flood hazard areas are subject to the mandatory purchase requirement. For example, a personal mortgage loan between two private parties (such as between family members), or a mortgage issued by a private mortgage company that is not then sold on the secondary market to a bank or entity like Fannie Mae, may not require flood insurance. Even if not technically required to mandate flood insurance by federal law, the issuing party may still require it as a means of financially securing the mortgage loan. Further, some property owners may be able to remove the designation of being located in a special flood hazard area (and thus, the requirement to purchase flood insurance). For instance, there are Federal Emergency Management Agency (FEMA) processes, such as FEMA’s Letter of Map Amendment and Letter of Map Revision processes, through which an individual who owns, rents, or leases property may submit certain mapping and survey information to FEMA and request that FEMA issue a document that officially removes a property or structure from the special flood hazard area.

[c]The Biggert-Waters Flood Insurance Reform Act of 2012 (Biggert-Waters Act) requires federal regulators to direct lenders to accept private policies that meet the statutory definition of private flood insurance, and the regulators implemented this requirement, effective in July 2019. The Biggert-Waters Act private insurance provisions did not apply to the Federal Housing Administration (FHA), the U.S. Department of Agriculture (USDA), or the Department of Veterans Affairs (VA) in their capacities as insurers or guarantors of mortgage loans. Nevertheless, USDA published a rule requiring the acceptance of private flood insurance policies in 2016. VA updated its lender guidance to provide a veteran the option to purchase private flood insurance. In November 2020, FHA published a proposed rule regarding the acceptance of private flood insurance policies.

[d]Flood determinations are typically made when a lender makes, increases, extends, or renews a loan. Lenders are not required to use loan monitoring services and can conduct their own monitoring, but many lenders do use these services to monitor for floodplain map changes.

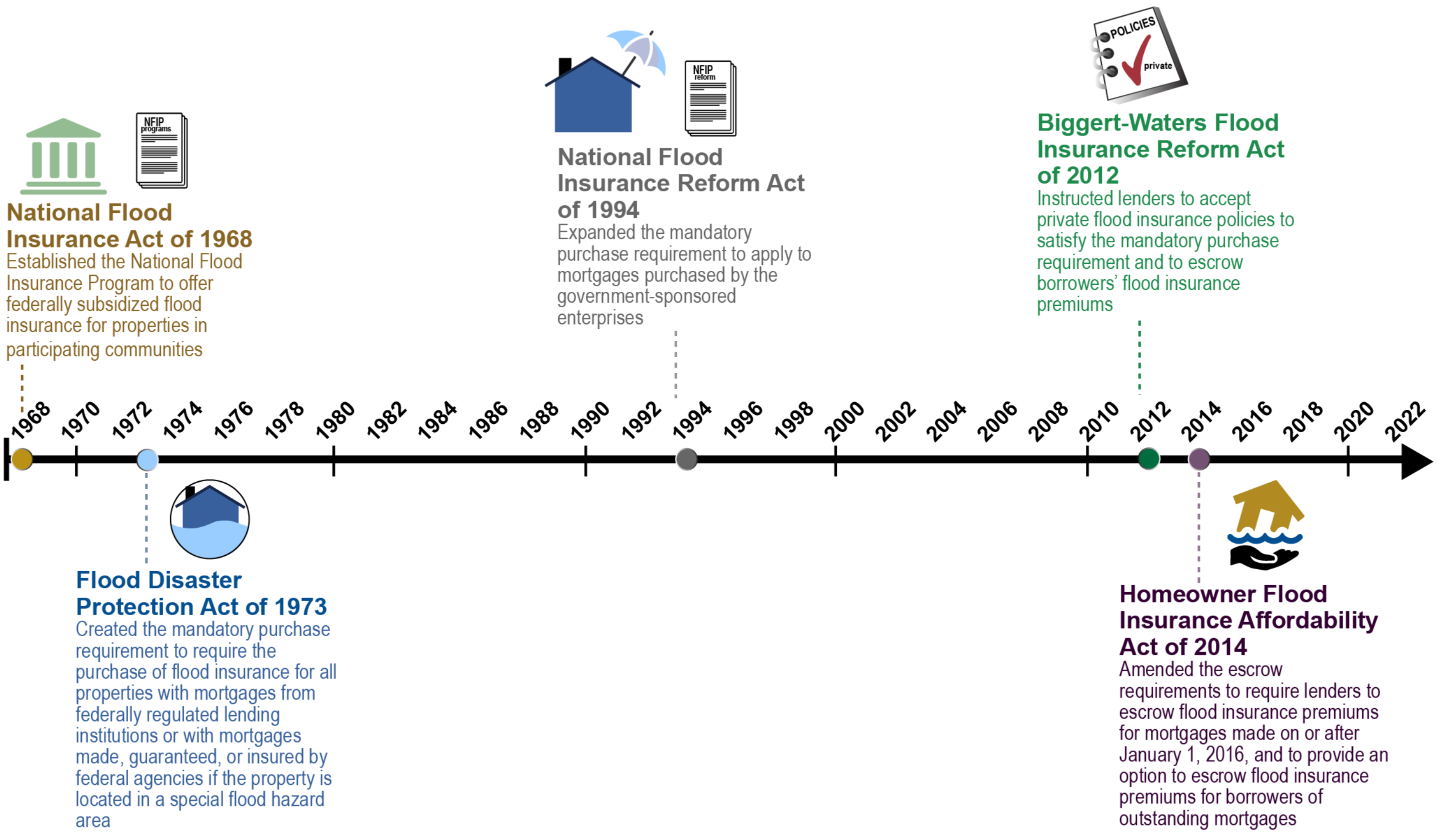
Lenders have a number of other requirements related to implementing the mandatory purchase requirement. For example, lenders must notify borrowers when flood insurance is required as a condition of the loan, ensure the correct amount of flood insurance is obtained for the term of the loan, and escrow flood insurance premiums.[34]

Legislative Updates to the Mandatory Purchase Requirement

The mandatory purchase requirement has been amended multiple times since its creation in 1973, as shown in figure 3, and the changes have mainly focused on ways to increase compliance in order to increase consumer participation in the flood insurance market.

[34]The regulations require the escrowing of flood insurance premiums and fees for designated loans secured by residential improved real estate or a mobile home and made, increased, renewed, or extended on or after January 1, 2016, subject to certain exceptions. See 12 C.F.R pt 22, 12 C.F.R pt 208.25, 12 C.F.R pt 339, 12 C.F.R pt 614, and 12 C.F.R pt 760.

Figure 3: Legislative History of the Mandatory Purchase Requirement



Source: GAO analysis of National Flood Insurance Program legislation. | GAO-21-578

The first significant update to the mandatory purchase requirement came after substantial flood damage occurred in the Midwest in 1993. Congress passed the National Flood Insurance Reform Act of 1994 (the 1994 Reform Act), which aimed to strengthen compliance with the requirement. Changes to the mandatory purchase requirement made by this act included

- requiring the enterprises to implement procedures reasonably designed to ensure that loans purchased have flood insurance, when required;
- requiring lenders to escrow flood insurance premiums (when they were escrowing for other purposes, such as homeowners insurance premiums);

- requiring lenders and servicers to force-place flood insurance coverage when loans were found to lack sufficient flood insurance coverage;
- requiring the prudential regulators and the Farm Credit Administration to impose civil money penalties on lenders that were found to have a pattern or practice of violating certain flood insurance requirements; and
- requiring lenders to provide enhanced flood hazard notice requirements for properties located in special flood hazard areas.

The Biggert-Waters Flood Insurance Reform Act of 2012 (Biggert-Waters Act) and the Homeowner Flood Insurance Affordability Act of 2014 made additional changes. For example, the Biggert-Waters Act requires lenders to accept private flood insurance policies that meet certain criteria to satisfy the mandatory purchase requirement.[35] These statutes also contain provisions related to the escrowing of flood insurance premiums and fees for all loans for which flood insurance is required, clarified the timing of when lenders could force-place flood insurance, and increased the amount of civil money penalties that the prudential regulators and the Farm Credit Administration could assess on lenders that were found to

[35]Specifically, the Biggert-Waters Act requires federal regulators to direct lenders to accept private policies that meet the statutory definition of private flood insurance, and the regulators implemented this requirement, effective in July 2019. Loans in Areas Having Special Flood Hazards, 84 Fed. Reg. 4953 (Feb. 20. 2019). The Biggert-Waters Act private insurance provisions did not apply to FHA, USDA, or VA in their capacities as insurers or guarantors of mortgage loans. Nevertheless, USDA published a rule requiring the acceptance of private flood insurance policies, Single Family Housing Guaranteed Loan Program, 81 Fed. Reg. 6418 (Feb. 8, 2016), and VA updated its lender guidance to provide a veteran the option to purchase private flood insurance. In November 2020, FHA published a proposed rule regarding the acceptance of private flood insurance policies. Acceptance of Private Flood Insurance for FHA-Insurance Mortgages, 85 Fed. Reg. 74630 (Nov. 23, 2020).

have a pattern or practice of violating certain flood insurance requirements.[36]

The Biggert-Waters Act also directed that FEMA include more accurate and comprehensive flood hazard data in its floodplain maps. For example, the Biggert-Waters Act requires FEMA to identify, review, update, maintain, and publish floodplain maps with respect to (1) all populated areas and areas of possible population growth located within the special flood hazard area (100-year floodplain) as well as the 500-year floodplain and (2) additional types of flood hazards that exist, such as residual risk, or areas that are protected by levees, dams, and other flood control structures.[37] The act also requires FEMA to use the most accurate topography and elevation data available. That act also directed FEMA, when updating floodplain maps, to include any relevant information or data from the National Oceanic and Atmospheric Administration and the U.S. Geological Survey related to the best available science regarding future changes in sea levels, precipitation, and intensity of hurricanes. Further, the act established an advisory council of subject-matter experts—known as the Technical Mapping Advisory Council—to provide recommendations to improve FEMA's mapping processes.[38]

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[36]Specifically, the Biggert-Waters Act (1) increased the maximum civil monetary penalty amount that regulators could impose per flood violation from $350 to $2,000 and eliminated the $100,000 limit they could assess on a lender in a given year; (2) updated escrow provisions requiring lenders to escrow borrowers' flood insurance premiums and fees; and (3) revised the rules on force-placement of flood insurance, allowing lenders to place policies as soon as flood coverage lapses or is found to be insufficient and charge borrowers for those costs. The Homeowner Flood Insurance Affordability Act of 2014 amended the escrow requirements by requiring lenders to notify all borrowers with loans made, increased, extended, or renewed on or after January 1, 2016, of the requirement to escrow flood insurance costs. For loans outstanding as of January 1, 2016, lenders were required to notify borrowers of the option to escrow flood insurance costs. It also exempted detached structures that are part of a residential property that do not function as a residence (e.g., a garage) from the mandatory purchase requirement.

[37]The 100-year floodplain and 500-year floodplain refer to the area that statistically has a chance of flooding in any given year, so a 500-year floodplain, for example, may statistically have a 1 in 500 chance of flooding in any given year.

[38]Pub. L. No. 112-141, div. F, title II, § 100215, 126 Stat. 405, 924 (codified at 42 U.S.C. § 4101a). According to the Technical Mapping Advisory Council, since its establishment in 2014, the council has delivered seven reports that include 37 recommendations and 13 implementation actions.

NFIP Reforms

In 2017, we developed five policy goals for evaluating options for reforming NFIP: (1) promoting flood risk resilience, (2) minimizing fiscal exposure to the federal government, (3) requiring transparency of federal fiscal exposure, (4) encouraging consumer participation in the flood insurance market, and (5) minimizing transition and implementation challenges.[39] We also recommended that Congress consider comprehensive reform to improve NFIP's solvency and enhance the nation's resilience to flood risk.[40]

We identified six areas where actions were needed: (1) addressing the current debt, (2) removing existing legislative barriers to FEMA's revising premium rates to reflect the full risk of loss, (3) addressing affordability, (4) increasing consumer participation, (5) removing barriers to private-sector involvement, and (6) protecting NFIP flood resilience efforts.[41]

Federal Entities Have Identified Instances of Noncompliance with the Mandatory Purchase Requirement

Prudential Regulators' Examinations Have Identified Violations Related to Lack of Flood Insurance Coverage

The prudential regulators and the Farm Credit Administration monitor compliance with the mandatory purchase requirement through

[39] GAO-17-425. We developed these goals based on our prior NFIP work, as well as the input of stakeholders.

[40] As of July 2021, Congress had not passed comprehensive reform to NFIP since we recommended they consider it in April 2017. Since the end of fiscal year 2017, Congress has enacted 16 short-term NFIP reauthorizations, and NFIP is authorized until September 30, 2021. Pub. L. No. 116-159, div. A, § 146(b), 134 Stat. 718 (2020). After September 30, 2021, key authorities of NFIP, such as the authority to issue new insurance contracts, will expire if they are not reauthorized by Congress.

[41] NFIP flood resilience efforts include mitigation, mapping, and floodplain management through community participation.

examinations of lenders.[42] The 1994 Reform Act requires that the prudential regulators determine whether an institution is complying with the requirements of NFIP as part of every compliance examination they conduct of their regulated lenders.[43] During examinations, examiners conduct various procedures, as appropriate, for the level of risk they identify for an institution. For example, examiners review lenders' internal controls to ensure appropriate policies, procedures, and monitoring are in place to comply with the mandatory purchase requirement, and they review a sample of loans for compliance.[44] Examiners review, among other things, whether lenders

- are performing flood zone determinations for mortgaged properties,
- are requiring flood insurance in the correct amount when a property is located in a special flood hazard area,
- are providing the required notices to borrowers whenever flood insurance is required as a condition of the loan, and
- are complying with requirements to force place flood insurance if, at any time during the term of a loan, they determine that flood insurance on a loan is not sufficient.

If examiners identify violations, lenders are required to take corrective actions. However, if upon further review, examiners find that lenders have not fully addressed identified violations, the regulators have mechanisms they can use to resolve them. For example, the regulators may take an informal action, such as obtaining a written commitment from the lender's

[42]The prudential regulators include FDIC, the Federal Reserve, NCUA, and OCC.

[43]The 1994 Reform Act amended the Federal Deposit Insurance Act and the Federal Credit Union Act. The scope of our report did not include a review of the regulators' frequencies of examinations. However, in 2016, we found that, the prudential regulators and the Farm Credit Administration used risk-based examinations in their oversight of their institutions. Each regulator had procedures for reviewing a regulated lending institution's compliance with the flood insurance requirements. GAO, *Flood Insurance: Potential Barriers Cited to Increase Use of Private Insurance*, GAO-16-611 (Washington, D.C.: July 14, 2016).

[44]During a compliance examination, regulators evaluate, among other things, a lender's compliance management system, which includes written policies and procedures, monitoring and audit processes, and training programs related to compliance with the mandatory purchase requirement and related provisions. Examiners may also conduct transaction testing on a sample of loan files to ensure that the lender's compliance procedures are operating as intended.

management to correct the problem.[45] However, if a lender is found to have a pattern or practice of committing certain violations of the mandatory purchase requirement, the Flood Disaster Protection Act requires that the regulator assess civil money penalties against the lender.[46]

Our analysis of data on violations of the mandatory purchase requirement identified by the four prudential regulators from 2016 through 2019 found that between 2 percent and 23 percent of the examinations identified violations.[47] As shown in figure 4, the most commonly identified violation (42 percent) was related to a lack of flood insurance coverage, indicating that not all properties subject to the requirement have a flood insurance policy and that not all lenders are in full compliance with the

[45]The scope of our report did not include a review of the regulators' supervisory actions during an examination when a violation was identified.

[46]In general, isolated, unrelated, or accidental occurrences of violations would not constitute a pattern or practice. However, repeated, intentional, regular, usual, deliberate, or institutionalized practices would almost always constitute a pattern or practice. See *Loans in Areas Having Special Flood Hazards; Interagency Questions and Answers Regarding Flood Insurance* 74 Fed. Reg. 35914, 35947 (July 21, 2009). The number of violations constituting a pattern or practice can vary from institution to institution. The types of violations for which regulators are required to assess civil money penalties if they identify a pattern or practice include those related to flood insurance premium escrow requirements; borrower notice of flood insurance requirements; making, increasing, extending, or renewing a loan with adequate flood insurance coverage in place; and force-placement of flood insurance requirements.

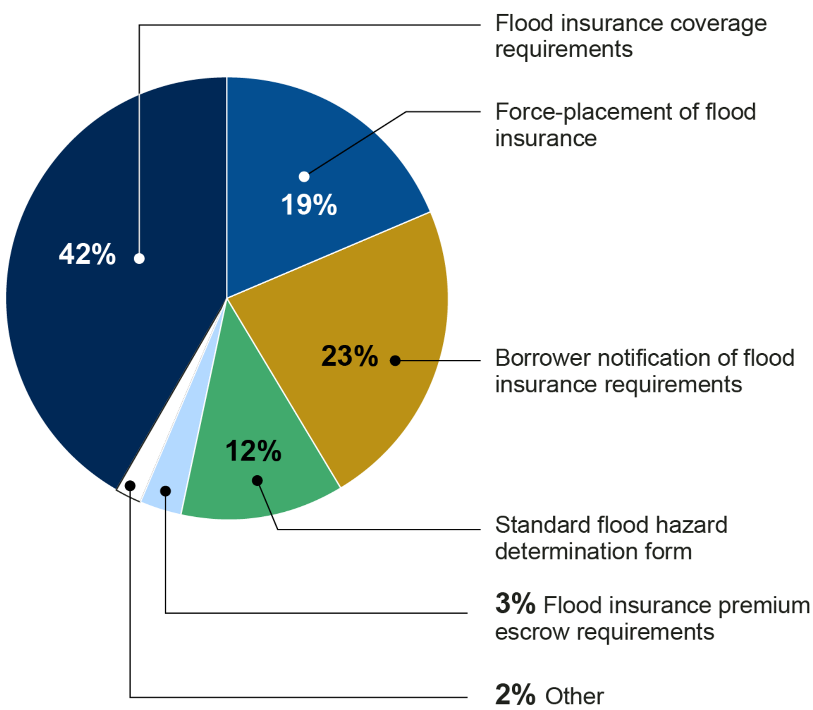
[47]As discussed previously, we use the term mandatory purchase requirement to collectively refer to the requirement for property owners with federally backed mortgages on properties located in special flood hazard areas to purchase and maintain adequate flood insurance in the amount required and the various other requirements lenders must meet to comply with the requirement including notice, escrow, and force-placement requirements. NCUA identified mandatory purchase requirement violations in 2 percent of its examinations, OCC identified violations in 13 percent of its examinations, the Federal Reserve identified violations in 16 percent of its examinations, and FDIC identified violations in 23 percent of its examinations. We collected and analyzed data from each of the prudential regulators on violations of the mandatory purchase requirement that the agencies identified during compliance examinations from 2016 through 2019. See app. II for more details. Because the majority of loans issued by institutions regulated by the Farm Credit Administration are not subject to the mandatory purchase requirement, we did not collect similar data from that agency. However, officials told us that less than 3 percent of loans examined identified a violation with the mandatory purchase requirement between 2015 and 2019. Farm Credit Administration officials explained that violations identified generally were related to lenders having an outdated standard hazard determination form or not having the form completed, rather than violations related to loans not having flood insurance when required.

requirement.[48] The next most common violation (23 percent) was related to notifications lenders are required to send borrowers concerning flood insurance requirements.[49]

[48]Lack of flood insurance coverage is defined as instances in which lenders did not ensure that flood insurance was in place at the time of loan origination for properties subject to the requirement or did not ensure that flood insurance was maintained for the life of the loan, or instances in which the amount of flood insurance coverage was insufficient.

[49]Missing notifications include the failure of the lender to notify a borrower if a property is located in a special flood hazard area.

Figure 4: Violations of the Mandatory Purchase Requirement Identified by Prudential Regulators, by Type of Violation, 2016–2019



Flood insurance coverage requirements: Failure to require flood insurance at the time of mortgage origination; failure to require insurance for the term of the loan; or failure to require sufficient insurance coverage when making, increasing, extending, or renewing a loan secured by a property in a special flood hazard area

Force-placement of flood insurance: Generally includes failure to notify borrowers to obtain flood insurance if a property is determined to have no or insufficient insurance, failure to force-place a flood insurance policy if a property is determined to have no or insufficient insurance, or failure to cancel the placed policy if the borrower provides proof of sufficient coverage

Borrower notification of flood insurance requirements: This category generally includes lender violations for failing to notify a borrower of the availability of flood insurance if a property is located in a special flood hazard area.

Standard flood hazard determination form: Failure to use or retain the standard flood determination form

Flood insurance premium escrow requirements: Generally includes failure to escrow flood insurance premiums for loans within a special flood hazard area, failure to deposit those premiums in an escrow account, or failure to pay premiums to flood insurance provider when due

Other: Other violations, which can include failure to provide required notification to the Federal Emergency Management Agency when a property's mortgage servicer changes

Source: GAO analysis of compliance examination data from the Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, Office of the Comptroller of the Currency, and the National Credit Union Administration. | GAO-21-578

Note: Total does not sum to 100 percent due to rounding.

As described previously, the prudential regulators conduct compliance examinations at their regulated institutions.[50] Our analysis represents only violations identified for mortgage loans that examiners tested during examinations and should not be extrapolated to represent the full universe of violations that may have occurred for all mortgage loans over the time period. Moreover, the percentage of examinations in which the

[50] The length of time between examinations is determined by several factors, including the size of the institution, the previous examination rating received by an institution, and the statutory requirement for examinations applicable to each regulator.

regulators identified violations may not be reflective of the actual level of noncompliance.[51] Appendix II contains additional information on our analysis of prudential regulators' violations and limitations associated with the analysis.

From 2016 through 2020, the prudential regulators imposed civil money penalties in cases where lenders were found to have a pattern or practice of certain violations. Specifically, from 2016 through 2020, the Federal Reserve, FDIC, and OCC issued a total of 96 civil money penalties against approximately 6,100 regulated lenders for noncompliance with relevant parts of the mandatory purchase requirement (see table 1).[52] These penalties totaled almost $25 million, with one penalty assessed by OCC in 2020 accounting for about $18 million of the total.[53] NCUA did not assess any civil money penalties during this time frame.

Table 1: Civil Money Penalties Assessed by the Prudential Regulators against Lenders for Noncompliance with the Mandatory Purchase Requirement, 2016–2020

	2016		2017		2018		2019		2020		Total	
	Number	**Amount ($)**	**Number**	**Amount ($)**	**Number**	**Amount ($)**	**Number**	**Amount ($)**	**Number**	**Amount ($)**	**Number**	**Amount ($)**
Federal Reserve	2	33,485	7	1,643,285	6	196,000	4	162,000	9	799,608	28	**2,834,378**
FDIC	7	77,654	17	377,884	10	129,366	11	150,263	4	63,466	49	**798,633**
OCC	3	599,500	5	816,420	1	207,245	6	573,143	4	18,928,210	19	**21,124,518**
NCUA	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**12**	**710,639**	**29**	**2,837,589**	**17**	**532,611**	**21**	**885,406**	**17**	**19,791,284**	**96**	**24,757,529**

Source: GAO analysis of data from the Board of Governors of the Federal Reserve System (Federal Reserve), the Federal Deposit Insurance Corporation (FDIC), the National Credit Union Administration (NCUA), and the Office of the Comptroller of the Currency (OCC). | GAO-21-578

[51]A violation identified at one lender may not indicate the same prevalence of noncompliance as a violation identified at a different lender due to variation in lender size and number of mortgages originated.

[52]From 2016 through 2020, the 28 civil money penalties assessed by the Federal Reserve were against 28 unique lenders and the 19 civil money penalties assessed by OCC were against 17 unique lenders. From 2016 through 2019, the 45 civil money penalties assessed by FDIC were against 44 unique lenders. For FDIC, we did not have specific lender information for 2020, so did not include them in the unique lender count.

[53]Assessed penalties are paid into FEMA's National Flood Mitigation Fund. 42 U.S.C. § 4012a(f)(8). FHFA can also assess civil money penalties against the enterprises for noncompliance with flood insurance requirements.

The Enterprises' and Other Federal Agencies' Oversight Activities Identified Instances of Noncompliance with the Mandatory Purchase Requirement

Enterprises

Separate from the prudential regulators' and Farm Credit Administration's mandatory purchase requirement compliance oversight, Fannie Mae and Freddie Mac require that all sellers and servicers comply with flood insurance requirements that are detailed in their respective contracts with sellers and servicers.[54] The contracts require that sellers and servicers ensure that borrowers have obtained the required flood insurance coverage at the time of origination of the mortgage and throughout the term of the loan if the property is located in a special flood hazard area. If a borrower fails to obtain flood coverage, the seller or servicer must force-place flood insurance. The enterprises monitor compliance with these requirements through audits of loans they purchase and assessments of their sellers and servicers.[55] The contracts provide the enterprises authority to pursue remedies against sellers and servicers that fail to comply with their flood insurance requirements, which may include indemnification against loss or the seller's or servicer's repurchase of loans.[56]

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[54]Our review of the enterprises' oversight of the mandatory purchase requirement focused on single-family mortgage loans (defined as mortgages covering one- to four-family residences) because these types of mortgages represent the vast majority of outstanding mortgage debt.

[55]For example, at the point of loan purchase, Fannie Mae applies a data-driven review for compliance with the mandatory purchase requirement if the loan appears to be located in a special flood hazard area.

[56]During these reviews, the enterprises generally review the servicers' policies and procedures for complying with the requirement and assess their controls for monitoring changes to flood maps and maintaining adequate flood insurance coverage on loans. The enterprises also review servicers' processes for working with third-party vendors that monitor flood map changes for loans in the servicers' portfolios. Fannie Mae conducts annual reviews of its largest servicers, and Freddie Mac reviews its largest servicers every 2 to 3 years. In addition, as part of FHFA's supervision and enforcement of the enterprises, it may review how the enterprises are ensuring that sellers and servicers are complying with the flood insurance requirements.

The enterprises have identified some instances of noncompliance with their flood insurance requirements:

- From 2016 through 2019, Fannie Mae identified noncompliance with flood insurance requirements in about 1 percent of its reviews of servicers. However, these cases did not involve mortgage loans lacking the required flood insurance, according to officials. Rather, they involved servicers' procedures for, among other things, ensuring appropriate coverage amounts and allowing flood insurance policies from private insurers.
- Officials from Freddie Mac told us that they track the number of loans they require sellers to repurchase because of noncompliance with flood insurance requirements. From 2016 through 2019, Freddie Mac required sellers to repurchase 0.005 percent of single-family loans because the sellers did not comply with flood insurance requirements. Freddie Mac's operational reviews of sellers and servicers also identified noncompliance from 2016 through 2019 in approximately 4 percent of the reviews, which related to the entities' controls for determining flood zone changes, monitoring flood insurance coverage, and ensuring data accuracy.

Other Federal Agencies

As noted earlier, FHA, USDA, and VA are responsible for ensuring that lenders and servicers that issue and service mortgages on their behalf comply with the mandatory purchase requirement. The agencies' oversight generally includes reviewing institutions' operations, policies, and procedures for complying with the requirement and documentation from a sample of individual loans to ensure that flood insurance has been obtained prior to loan closing. Generally, the agencies work with lenders and servicers to resolve compliance deficiencies identified. However, if lenders and servicers do not resolve deficiencies, the agencies can refuse to pay any losses associated with a loan.

- FHA identified 53 loans from May 2017 through December 2019 that were not in compliance with FHA flood insurance requirements, out of approximately 82,000 that it reviewed.[57] FHA officials told us that in these cases, either flood insurance was not obtained at all, or insurance was obtained but did not meet FHA's requirements.

[57] We reviewed information on loans starting from May 2017 because FHA made changes to its lender and loan monitoring data systems and officials told us that information prior to that date would not be reliable.

- USDA's Rural Housing Service officials told us that the agency tracks the number of findings it identifies during program-level compliance reviews. These compliance reviews include, but are not limited to, compliance with the flood insurance requirements. Rural Housing Service officials stated that, for single-family housing programs, there were no open compliance findings related to flood insurance requirements as of May 2021.
- VA officials told us that the agency maintains information on deficiencies it cites, but it does not maintain data granular enough to identify violations specific to the mandatory purchase requirement.

Review of Prudential Regulator Violation Data and Recent Research Suggest Noncompliance Could Be More Prevalent Than Perceived

Some federal entities that oversee compliance with the mandatory purchase requirement believe that compliance with the requirement is not a concern based on the results of their oversight activities and when considered in the context of the total number of loans subject to the requirement. More specifically, some prudential regulator officials explained that their assessment is based on the activities they conduct during their examinations that evaluate lenders' compliance systems and the associated controls around flood insurance requirements.[58] Further, officials from two of these regulators said if noncompliance is found, the issues are generally resolved quickly.[59] Therefore, the prudential regulators believe their examinations are not identifying systemic noncompliance issues associated with the mandatory purchase requirement.

Lenders and third-party vendors we interviewed also did not express concern with the level of noncompliance with the requirement. For instance, representatives from lenders told us that they have not noticed any upward trends in noncompliance, such as clients dropping flood insurance coverage during the life of the mortgage. Further, representatives from third-party vendors that assist lenders with

[58]As discussed earlier, prudential regulators' oversight activities include a compliance examination. During these examinations, regulators evaluate, among other things, a lender's compliance management system, which includes written policies and procedures, monitoring and audit processes, and training programs related to compliance with the mandatory purchase requirement and related provisions. Examiners may also conduct transaction testing on a sample of loan files to ensure that the lender's compliance procedures are operating as intended.

[59]According to OCC officials, while any violations found by examiners may be resolved quickly, they are still documented as appropriate.

complying with the mandatory purchase requirement stated that they believe compliance with the requirement is high.

We and others have acknowledged that challenges exist to understanding the full extent of noncompliance with the mandatory purchase requirement.[60] These challenges have resulted in the absence of a full understanding of compliance with the requirement. For instance, the federal entities that oversee compliance do not determine a full estimate of noncompliance among the lenders they oversee, and they are not required to do so. For example, the federal entities' oversight activities include sampling loans to test lenders' controls and compliance. However, the samples are not always statistical samples and may provide only an indication of the level of noncompliance, rather than a comprehensive estimate. One regulator stated that the only way it could determine a full estimate of compliance for its regulated entities would be for examiners, the lender, or a lender's third party to review every loan, which would not be possible.

Our analysis of the prudential regulators' violation data did identify that the most common type of violation among three of the four prudential regulators was related to properties not having flood insurance coverage or not having sufficient coverage. More specifically, over 40 percent of the violations identified by FDIC and OCC, 39 percent of violations identified by the Federal Reserve, and 20 percent of the violations identified by NCUA were related to flood insurance coverage requirements.[61]

Moreover, research conducted by the Department of Housing and Urban Development (HUD) to better understand its flood risk suggests noncompliance among properties with FHA-insured mortgages may be a substantive issue. More specifically, in 2020, HUD estimated flood insurance coverage in Florida and North Carolina for FHA-insured properties as a way of understanding its potential flood risk exposure.[62] The study found that 65 percent of FHA-insured properties in Florida and 49 percent of FHA-insured properties in North Carolina that were inside a

[60]See app. III for discussion of challenges associated with estimating a national comprehensive rate of compliance with the mandatory purchase requirement.

[61]App. II contains additional information on this analysis.

[62]See Department of Housing and Urban Development, Office of Policy Development and Research, *Flood Insurance Coverage of Federal Housing Administration Single-Family Homes* (Washington, D.C.: Mar. 30, 2020).

special flood hazard area had a policy in 2019. While these estimates do not represent a true estimate of compliance with the mandatory purchase requirement, according to HUD, they do provide insight into the level of compliance and indicate that some homeowners who are at risk are not covered by adequate flood insurance.[63]

In addition, in January 2021, the HUD Office of Inspector General (OIG) reported that it had identified instances of noncompliance with flood insurance requirements for FHA-insured single-family mortgages. The HUD OIG found that FHA insured at least 3,870 loans that closed in 2019, totaling $940 million, that were not eligible for FHA mortgage insurance because they were made for properties in special flood hazard areas that did not have the required flood insurance coverage.[64] We discuss how using this type of information on compliance from federal entities may assist FEMA in increasing consumer participation in the flood insurance market in more detail in the following section.

Information on Compliance with the Mandatory Purchase Requirement Could Help FEMA Address Consumer Participation Goals

FEMA is engaged in a variety of efforts to help increase consumer participation in the flood insurance market. However, it does not effectively use information related to compliance with the mandatory purchase requirement to identify ways to help increase participation. Officials explained that FEMA's focus on increasing flood insurance demand is not limited only to properties subject to the mandatory purchase requirement. Further, officials said that FEMA's limited statutory role with respect to the mandatory purchase requirement does not provide the agency with a clear basis for monitoring compliance with the requirement.

[63]The authors of the study noted that these estimates of flood insurance coverage should not be considered estimates of compliance due to limitations with available data to determine flood zone status, such as the lack of data on elevation certificates. Further, these figures are based on a conservative estimate of the number of FHA-insured properties that fall inside a special flood hazard area. This estimate excluded properties with inaccurate geographic coordinates from the count of properties within the special flood hazard area. App. III contains additional details on this study.

[64]Department of Housing and Urban Development, Office of Inspector General, *Flood Insurance for FHA Loan Originations* (Kansas City, KS: Jan. 5, 2021). The OIG found loans that had private flood insurance instead of the required NFIP coverage, NFIP coverage that did not meet the minimum required amount, or no NFIP coverage at the time the loan was closed and endorsed. During the study period, FHA only accepted NFIP policies, and did not accept private flood insurance policies to satisfy the mandatory purchase requirement. In November 2020, FHA issued a proposed rule that would allow lenders to accept private flood insurance policies to satisfy the requirement for FHA-insured mortgages.

Although FEMA may have a limited statutory role related to the mandatory purchase requirement, FEMA has goals related to increasing consumer purchase of flood insurance as part of its mission. For example, FEMA's 2018–2022 strategic plan includes a strategic objective to close the insurance gap—that is, to ensure that properties exposed to flood risk have insurance and that the amount of insurance is sufficient. The agency has set a goal of doubling the number of properties in the United States covered by a flood insurance policy by 2023, regardless of whether the insurance is provided through NFIP or a private insurer.

To help achieve this goal, FEMA is engaged in a variety of efforts aimed at increasing consumer demand for flood insurance. For example, FEMA is examining ways to redesign its flood insurance policies to make them more desirable to consumers and easier for insurance agents to sell. This involves redesigning NFIP policies to better align with insurance industry standards, such as developing a flood insurance policy that is similar to a homeowners insurance policy, which covers both the dwelling and its contents. FEMA also engages in outreach to consumers and stakeholders, including insurance agents and state emergency management officials. For example, FEMA developed a kit that consists of key messages and templates for stakeholders to use to communicate the importance of insurance in disaster recovery. FEMA has also developed a tool for consumers to help them understand the potential financial effects of flooding.

Given the absence of a full understanding of compliance with the mandatory purchase requirement and the importance of the requirement for helping to increase consumer purchase of flood insurance and potentially reduce fiscal exposure to the federal government, FEMA could use information related to compliance to identify patterns and trends and to develop strategies for addressing noncompliance. More specifically, FEMA could take the following steps:

Review its own data to examine trends and patterns related to consumer participation and potential noncompliance. FEMA maintains extensive data on NFIP policies. While these data do not allow FEMA to estimate compliance with the mandatory purchase requirement because the data do not identify which properties are subject to it, an analysis of NFIP policy data could provide FEMA information on how long NFIP policies are maintained over time and when flood insurance policies may be dropped.[65] Further, an examination of the number and cost of claims associated with the policies that were dropped could help FEMA to understand some of the financial effects that noncompliance may be having on both consumers and the federal government. Finally, analysis of FEMA's policy data could provide information on the effectiveness of changes to the mandatory purchase requirement, such as new escrow requirements, in ensuring policies are maintained for the life of mortgage loans. This type of analysis could also be beneficial to federal entities and policymakers overseeing the requirement.

We analyzed NFIP policy data to estimate how long newly purchased properties located in special flood hazard areas maintained an NFIP policy.[66] We identified NFIP policies that were originated in 2014 on newly purchased properties located in special flood hazard areas. Because these properties are located in special flood hazard areas, they likely would be subject to the mandatory purchase requirement if they had a federally backed mortgage associated with the property. We found that at the end of 2019, about 28 percent of the newly purchased properties no longer had an NFIP policy.[67]

We acknowledge there are a number of reasons a property located in a special flood hazard area may no longer have flood insurance through NFIP. For example, the property may no longer have a federally backed mortgage associated with it, or the property owner may have replaced the NFIP policy with a private flood insurance policy. However, this analysis provides some indication of potential trends, since noncompliance may be more likely to occur after mortgages are originated, and potential gaps in

[65]FEMA officials stated that the agency does not know which NFIP policies are subject to the mandatory purchase requirement because it does not know if properties covered by NFIP policies have a federally backed mortgage.

[66]Past research has suggested that compliance with the mandatory purchase requirement may be greater at mortgage origination and decline over the life of the mortgage loan. For example, see Erwann Michel-Kerjan, Sabine Lemoyne de Forges, and Howard Kunreuther, "Policy Tenure Under the U.S. National Flood Insurance Program (NFIP)", *Risk Analysis*, vol. 32, no. 4 (2012). See app. III for more details on the methods and limitations of our analysis.

[67]Our analysis focused on NFIP policies for newly purchased single-family properties (defined as properties containing one to four units) located in special flood hazard areas. The address is the unit of observation to determine the presence or absence of an active NFIP policy in each calendar year following policy origination. Aggregating addresses by origination cohort (the year in which the policy was originated) allows us to estimate the percentage of newly originated policies on properties located in special flood hazard areas that survived over time regardless of changes in ownership. See app. III for additional details.

insurance coverage may be more likely to occur the longer consumers maintain their mortgages.

FEMA could use information on how long NFIP policies are maintained for a variety of purposes. For example, the information could help FEMA target the timing of its outreach activities to policy holders and insurance agents to help prevent policies from lapsing. FEMA could also communicate this type of information to the federal entities that implement the requirement and work with them to identify actions they could take to ensure that borrowers are renewing their policies if they are subject to the mandatory purchase requirement. FEMA could also work with the companies that monitor insurance coverage for lenders to better understand why NFIP policies are being dropped for properties located in special flood hazard areas.

Consider how to work with other federal entities and use information from entities to encourage greater consumer purchase of flood insurance. As discussed previously, the prudential regulators and the other federal entities identify instances of noncompliance during their oversight activities. This type of information could help FEMA identify which aspects of the mandatory purchase requirement have the highest rates of lender noncompliance and develop strategies with various stakeholders to improve compliance in those areas.

FEMA's 2018–2022 strategic plan states that FEMA is focused on expanding the number of properties covered by flood insurance and that FEMA will work closely with the insurance industry, realtors, mortgage lenders, community leaders, and Congress to drive insurance purchases. FEMA could work with the prudential regulators and other federal entities that implement the requirement on ways to share information on trends, patterns, and problems related to compliance findings.[68] This information could help FEMA to better understand consumer participation issues, and could help the federal entities focus their oversight activities on areas of concern. In addition, FEMA and the other federal entities could use

[68]The 1994 Reform Act required the prudential regulators to report to Congress information on compliance with the mandatory purchase requirement for the institutions they supervise. This requirement applied to the first year after enactment of the 1994 Reform Act, and then biennially for 4 years after enactment. These reports included information on the methods used to determine compliance; the number of institutions examined and found to be out of compliance; an analysis of compliance, including discussions of trends, patterns, and problems; and recommendations to improve the examination process. In 2019, FEMA worked with FHFA and HUD to develop information-sharing agreements to share NFIP data.

noncompliance trend information to develop lender trainings or other activities to help improve compliance in these areas.

Further, FEMA could use information from the federal entities to help develop strategies to increase the consumer purchase of flood insurance in areas outside of special flood hazard areas that may still be at risk of flooding. FEMA could use findings, similar to the HUD study, to target outreach efforts to properties located near special flood hazard areas, which could help to increase the purchase of flood insurance for properties that likely face increased flood risk.[69]

Despite FEMA's mission to promote disaster resilience and its goal to increase consumer purchase of flood insurance, it does not use information on mandatory purchase requirement compliance from internal or external sources to help with these efforts. Officials told us they do not have current or definitive information on compliance with the mandatory purchase requirement because of FEMA's limited statutory role with respect to the requirement. Further, they told us that they do not have information on compliance trends observed by federal entities that enforce the requirement, and that they only find out about instances of noncompliance when the prudential regulators assess civil money penalties for violations.

Federal decision makers need information about whether federal programs and activities are achieving intended results as they set priorities and consider how to make progress toward national objectives.[70] The Foundations for Evidence-Based Policymaking Act of 2018 reinforces the importance of evidence-based decision-making and requires agencies to undertake activities toward this end.[71] Moreover, our Disaster Resilience Framework identified three principles to guide analysis of

[69]HUD's study also evaluated the flood risk exposure for FHA-insured loans in the two states it reviewed. The study estimated flood insurance coverage for FHA single-family properties both within special flood hazard areas and near special flood hazard areas (within 600 meters). The study found that, on average, the flood insurance coverage rate was significantly higher for properties inside a special flood hazard area than for those outside of a special flood hazard area. It also found that FHA-insured properties near special flood hazard areas carry flood insurance at rates similar to rates for properties farther away from special flood hazard areas.

[70]GAO, *Evidence-Based Policymaking: Selected Agencies Coordinate Activities, but Could Enhance Collaboration*, GAO-20-119 (Washington, D.C.: Dec. 4, 2019).

[71]Pub. L. No. 115-435, 132 Stat. 5529 (2019).

federal actions to facilitate and promote resilience to natural disasters.[72] One of these principles, information, states that accessing information that is authoritative and understandable can help decision makers to identify current and future risk and the impact of risk-reduction strategies. Actions to implement this principle could include federal efforts to leverage and synthesize disaster risk information across agencies and to strengthen the ability to assess status and report progress toward disaster resilience goals.

Compliance with the mandatory purchase requirement directly affects the number of properties that have flood insurance. It also has implications for revenues FEMA may receive from NFIP premiums and could help to limit the federal government's fiscal exposure to future flood losses, and therefore warrants attention from FEMA.[73] By using internal and external information to better understand compliance with the mandatory purchase requirement, and facilitating the sharing of this information among the federal entities with mandatory purchase requirement responsibilities, FEMA may help to reduce instances of noncompliance and increase the number of consumers who have flood insurance. Without incorporating compliance information into its decision-making, FEMA cannot fully understand the extent to which the requirement contributes to consumer participation in the flood insurance market and is missing an opportunity to further its consumer participation goals, protect property owners from the financial risks of flood damage, and potentially reduce federal fiscal exposure.

[72]GAO-20-100SP.

[73]For example, to the extent that more consumers have insurance to protect them from the financial effects of flooding, they may not need federal disaster assistance to help them recover from flood events. Further, the receipt of federal disaster assistance generates the requirement to purchase flood insurance for properties located in special flood hazard areas. Removing the availability of federal disaster assistance to previous recipients of such assistance who live in special flood hazard areas also reduces federal disaster assistance expenditures. A review of the mandatory purchase requirement that applies to federal disaster assistance was outside the scope of this report. However, we have also previously reported that increased consumer participation could increase the size and scope of NFIP and potentially increase federal fiscal exposure. This could be reduced by implementing full-risk rates and balanced by an increasing number of lower-risk properties. See GAO-17-425.

Using Only FEMA Floodplain Maps to Determine Who Must Purchase Insurance Presents Challenges, and New Information May Offer Alternatives

Using only FEMA floodplain maps to determine which properties are subject to the mandatory purchase requirement may be limiting consumer participation in the flood insurance market for consumers who face flood risk and may also be increasing federal disaster assistance expenditures. However, FEMA has initiatives underway that provide more comprehensive flood risk information than floodplain maps and could help to inform which properties should be subject to the requirement. These initiatives are being considered in other efforts FEMA is making to modernize NFIP, but they are not yet being considered for the mandatory purchase requirement.

Using Only FEMA Floodplain Maps for the Mandatory Purchase Requirement May Limit Consumer Participation for Properties with Flood Risk

The Flood Protection Disaster Act of 1973 requires that properties that have a federally backed mortgage and are located in special flood hazard areas—which FEMA depicts on its floodplain maps—must purchase flood insurance.[74] However, we identified limitations associated with FEMA's floodplain maps, including the following:[75]

- **Floodplain maps may not be current.** FEMA's floodplain maps are generally static portrayals of risk and require ongoing updates to reflect natural topography changes and changes as a result of land development. As described previously, developing and adopting FEMA's floodplain maps is a regulatory process that involves public input. FEMA's Assistant Administrator for Risk Management testified in February 2020 that it takes 7 years, on average, to develop a new map.[76] However, FEMA is mandated to assess the need to revise and

[74]42 U.S.C. § 4012a.

[75]We have reported in the past on challenges faced by FEMA in promoting flood map accuracy; see GAO, *FEMA Flood Maps: Some Standards and Processes in Place to Promote Map Accuracy and Outreach, but Opportunities Exist to Address Implementation Challenges*, GAO-11-17 (Washington, D.C.: Dec. 2, 2010). We also have ongoing work evaluating FEMA's flood hazard mapping efforts and anticipate reporting on the planned changes later in 2021.

[76]See *Testimony of Michael Grimm, Assistant Administrator for Risk Management, Federal Insurance and Mitigation Administration, Federal Emergency Management Agency, U.S. Department of Homeland Security Before the Committee on Science, Space, and Technology, Subcommittee on Investigations and Oversight, and Subcommittee on Environment, United States House of Representatives* (Washington D.C.: Feb. 27, 2020).

update floodplain maps every 5 years.[77] In February 2020, FEMA estimated that roughly 3,300 communities (out of approximately 22,500) had maps that were over 15 years old. To the extent that flood conditions presented in FEMA's floodplain maps are not current, the mandatory purchase requirement may not be capturing all high-risk properties that should have flood insurance.

- **Some geographic areas have not been mapped.** According to FEMA, its current floodplain map inventory covers 98 percent of the nation's population and provides flood hazard mapping for 1.15 million miles of rivers and streams and 44,000 miles of coastline. However, an additional 1.3 million miles of rivers and streams require flood hazard data and mapping, including 329,000 miles with population living alongside the rivers and streams and another 1 million miles with possible population growth, according to FEMA. These areas have not been mapped because FEMA has historically prioritized limited mapping resources for high-population areas that represent the greatest flood risk. However, as discussed later, flood hazards may still exist in the unmapped areas. Property owners with federally backed mortgages who live in areas of the country that are not mapped would not be subject to the mandatory purchase requirement, and therefore might not be protected from the financial effects of flooding.
- **Most maps do not reflect how flood risk will likely change in the future.** As discussed previously, in 2012, the Biggert-Waters Act required the Technical Mapping Advisory Council to develop recommendations to FEMA about how to ensure that floodplain maps include the best available climate science to assess flood risks, and that FEMA use the best science regarding future changes in sea levels, precipitation, and intensity of hurricanes.[78] In 2015, the Technical Mapping Advisory Council made recommendations to FEMA about how to incorporate information on future conditions, such as changing weather patterns and coastal conditions, into the agency's flood hazard products.[79] As of July 2021, according to FEMA

[77]42 U.S.C. § 4101(e). While FEMA is required to assess the need to revise and update its maps every 5 years, an agency official stated that the age of a flood map is not the only indicator of its usefulness. For areas where development and natural changes in the environment have not occurred, the actual risk of a 1 percent annual-chance flood may remain consistent over a long time frame.

[78]Pub. L. No. 112-141, §§ 100215(d).100216(b)(3)(D), 126 Stat. 405, 926, 928 (2012).

[79]See Technical Mapping Advisory Council, *Future Conditions Risk Assessment and Modeling* (December 2015).

officials, most floodplain maps did not include information on likely future conditions.

Because flood hazards related to likely future conditions are generally not currently incorporated into FEMA's floodplain maps, this information is not reflected in the determination of which properties are subject to the mandatory purchase requirement. Therefore, the requirement may not be helping to increase participation for properties that may experience challenges posed by climate change—such as increasing storm intensities, frequent heavy precipitation, extreme flooding, and higher sea levels. As discussed later in this section, FEMA has been developing nonregulatory products that incorporate future conditions, which was one of the recommendations from the Technical Mapping Advisory Council.

- **Maps do not reflect risks from all types of flood events.** FEMA floodplain maps do not include risk related to pluvial flooding—flooding that occurs when an extreme rainfall event creates a flood independent of an overflowing water body. Increased urbanization can lead to a decrease in permeable surfaces, such as grass, which creates higher flood risk from heavy rainfall. FEMA officials said that the exclusion of pluvial flooding from FEMA's floodplain maps creates the potential for greater flood risk than is currently represented on its maps. Therefore, the mandatory purchase requirement also may not protect property owners from this additional flood risk.

Ongoing FEMA Efforts Could Help to More Effectively Determine Who Should Be Required to Purchase Flood Insurance

FEMA has several initiatives to modernize NFIP that use more comprehensive and up-to-date flood risk information, but this information is currently not incorporated into the mandatory purchase requirement. These initiatives include updated methods to calculate NFIP premium rates, new flood hazard data, and additional flood map products.

NFIP Premium Rates

Since 2016, FEMA has been revising the methodology for setting NFIP premium rates.[80] When this effort is fully implemented, it will be the most significant change to how FEMA calculates its NFIP premiums since the 1970s. According to FEMA, the current methodology does not reflect advances in technology or the agency's contemporary understanding of flood risk. The new methodology involves the use of a larger range of variables than the current rating system, both in terms of modeling the flood risk and also in assessing the risk to each property.

In the new methodology, the flood zones delineated in the floodplain maps that define the special flood hazard area and other risks will no longer be used to calculate a property's flood insurance premium rate. Instead, premiums rates will be calculated based on a property's specific features, such as the distance to the coast or another flooding source. The updated methodology also will reflect more types of flood events, including risks from pluvial flooding and tsunami, which are not currently included in NFIP rates or FEMA floodplain maps.[81]

Because the new methodology will create a more individualized picture of a property's risk, FEMA hopes that customers will better understand their flood risk and the importance of flood insurance. For example, providing individualized information may help homeowners outside of special flood hazard areas understand that they still face significant flood risk based on circumstances unique to their property, which could encourage them to purchase insurance.

[80]FEMA calls the changes it is making to its risk rating methodology Risk Rating 2.0—Equity in Action. Risk Rating 2.0 includes efforts to use catastrophe models and updated map information to better reflect the variation in flood risk in order to establish a new risk-informed rating plan. New NFIP policies will be subject to the new rating methodology beginning on October 1, 2021, and all remaining NFIP policies renewing on or after April 1, 2022, will be subject to the new rating methodology. In 2008, we recommended that FEMA take steps to ensure that its rate-setting methods and the data it uses to set rates result in full-risk premiums that accurately reflect the risk of losses from flooding. In 2013, we recommended that FEMA develop and implement a plan, including a timeline, to obtain needed elevation information for properties as soon as practicable. Through its efforts to develop and implement Risk Rating 2.0, FEMA has implemented both of these recommendations. See GAO, *Flood Insurance: FEMA's Rate-Setting Process Warrants Attention*, GAO-09-12 (Washington, D.C.: Oct. 31, 2008) and *Flood Insurance: More Information Needed on Subsidized Properties*, GAO-13-607 (Washington, D.C.: July 3, 2013).

[81]Because NFIP premium rates are assessed yearly, the rate is designed to assess and insure against current—not future—risks. This is consistent with standard actuarial practice for pricing 1-year term insurance.

Graduated Flood Hazard Mapping

In 2019, FEMA initiated an effort—the Future of Flood Risk Data—to develop a more comprehensive picture of the country's flood hazards and risk to provide communities additional information for understanding their flooding risks beyond what is available in the FEMA floodplain maps. A key component of this effort is exploring how FEMA can transition from a binary, in-or-out approach to flood hazard mapping (i.e., the 1 percent annual-chance flood currently used in FEMA floodplain maps) to a graduated approach that distinguishes incremental levels of risk for properties. According to FEMA, this more detailed and nuanced information will provide a broader range of flood scenarios than the current method used to determine the special flood hazard areas in the FEMA floodplain maps. The initiative seeks to leverage new technologies to include more efficient, accurate, and consistent flood risk information across the nation. According to officials, FEMA aims to use the initiative as a vehicle for understanding the ways its mapping program should evolve to improve national understanding of flood risk. FEMA believes that providing more comprehensive hazard and risk information complements improvements in flood risk communication being advanced through NFIP's new premium-setting methodology.

Flood Map Products That Provide Additional and Future Flood Risk Information

FEMA also produces—outside of the regulatory process for developing floodplain maps—flood hazard information for the general public and government agencies to supplement its floodplain maps. According to FEMA officials, these nonregulatory products are intended to further communicate flood hazards and risks and leverage new science and technologies to deliver more comprehensive flood risk data. For example, one nonregulatory product that FEMA develops is called a "Flood Risk Map," which provides a color-coded view of a community's flood risk at a watershed level. According to FEMA officials, communities' floodplain management efforts are benefiting from additional information beyond what is available in floodplain maps through FEMA's development of nonregulatory flood map products.

According to FEMA, the advantages of nonregulatory flood map products include helping communities understand where flood risk is changing, and these products also improve risk communication to the public by providing a user-friendly analysis of flood risks. FEMA officials explained that they recognize the need for communities to have more information on flood risk than what is included in the agency's floodplain maps to improve flood resilience, and they are working to identify best practices for developing products and tools for communicating risk related to future conditions to communities.[82] According to FEMA's Assistant Administrator for Risk Management, FEMA strongly encourages communities to incorporate future conditions and information into its projects and plans.[83]

Further, in 2020, FEMA released the National Risk Index, which is an online map tool that illustrates hazard risk and identifies communities most at risk for a number of natural hazards, including flooding. FEMA officials told us that the goal of the index is to provide communities with a comprehensive picture of natural hazard risk. For example, in addition to natural hazard risk, the index depicts expected annual losses, social vulnerabilities, and community resilience to help communities develop risk reduction efforts. The index leverages data from FEMA's floodplain maps and supplements them with the best available data where FEMA floodplain map data do not exist.[84]

FEMA could potentially use its new, more comprehensive information on flood risk in its process for developing its floodplain maps, which identify special flood hazard areas. However, FEMA has not evaluated how the new information could be incorporated into the mandatory purchase requirement. This may be due, in part, to FEMA's view of its role in the implementation, monitoring, and enforcement of the mandatory purchase requirement, which the agency sees as limited.

Changes to the maps could have a considerable impact on the large number of stakeholders who use these maps and oversee the implementation of the requirement. As observed with other NFIP modernization efforts, FEMA's floodplain maps are used for multiple purposes, and changes to these maps are complicated to make because they could have broader implications for other aspects of NFIP. For instance, as discussed previously, FEMA floodplain maps serve as the basis for local floodplain management standards that communities must adopt and enforce as part of their NFIP participation. Floodplain maps

[82]In our ongoing work evaluating FEMA's flood hazard mapping efforts, we are also reviewing the extent to which FEMA evaluates whether its nonregulatory products are enhancing flood resilience.

[83]See *Testimony of Michael Grimm, Assistant Administrator for Risk Management, Federal Insurance and Mitigation Administration, Federal Emergency Management Agency, U.S. Department of Homeland Security Before the Committee on Science, Space, and Technology, Subcommittee on Investigations and Oversight, and Subcommittee on Environment, United States House of Representatives* (Washington, D.C.: Feb. 27, 2020).

[84]The National Risk Index provides information at the county and census-tract levels.

also will continue to be used for setting some NFIP premium rates until April 1, 2022.

Since the 1970s, FEMA floodplain maps have been used to designate which properties are subject to the mandatory purchase requirement. According to officials, although FEMA has discretion to change the type of information it uses to determine the boundaries of special flood hazard areas, it does not have direct responsibility to implement or monitor the mandatory purchase requirement. FEMA officials stated that specific congressional direction to make changes to the way the mandatory purchase requirement is implemented would be helpful.

The information FEMA is developing through its recent initiatives may help to address some of the limitations we identified with using only floodplain maps for the purpose of designating which properties are subject to the mandatory purchase requirement. For example, FEMA's Assistant Administrator for Risk Management testified that over 40 percent of NFIP claims in 2017–2020 were for properties located outside of a special flood hazard area or were in areas that FEMA had not mapped.[85] However, in order to use the more comprehensive and up-to-date flood risk information to implement the mandatory purchase requirement, FEMA would need to evaluate how this information could be incorporated into the revised designation. This analysis could assist Congress in determining how the new information could be used to determine which properties should be subject to the mandatory purchase requirement.

In 2017, we identified policy goals for evaluating potential options for reforming the flood insurance program, including increasing consumer participation in the flood insurance market, promoting flood risk resilience, and minimizing fiscal exposure to the federal government.[86] In addition, our Disaster Resilience Framework outlines federal actions that can facilitate disaster resilience decisions, such as creating laws, regulations, and directives that require specific actions for enhancing disaster

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[85]See *Testimony of Michael Grimm, Assistant Administrator for Risk Management, Federal Insurance and Mitigation Administration, Federal Emergency Management Agency, U.S. Department of Homeland Security Before the Committee on Science, Space, and Technology, Subcommittee on Investigations and Oversight, and Subcommittee on the Environment, United States House of Representatives* (Washington D.C.: Feb. 27, 2020).

[86]GAO-17-425.

resilience.[87] The framework also calls for federal efforts to improve the ability to assess alternatives to address risk and to provide for reliable and authoritative information about both current and future risk so that decision makers can better assess risk.

The mandatory purchase requirement is a key tool to help the federal government improve flood resilience and meet the policy goals for NFIP, including increasing consumer participation. However, the current way properties are designated as being subject to the requirement may not be capturing all properties that should have flood insurance. An analysis conducted by FEMA on how more comprehensive and up-to-date flood risk information could be used to designate properties as being subject to the requirement could help Congress revise the requirement and improve its ability to increase consumer participation and reduce future federal disaster assistance expenditures. It could also potentially help to reduce federal fiscal exposure. Each of these goals will continue to be important as flood risk is expected to increase in the future.

Conclusions

Congress created the mandatory purchase requirement to increase consumer participation in the flood insurance market and to decrease federal disaster assistance expenditures resulting from floods. However, many property owners still lack flood insurance and may be exposed to the risk of flooding. FEMA has made progress in developing more comprehensive and up-to-date flood risk information, but this information has not been incorporated to help determine which properties should be subject to the mandatory purchase requirement. In light of FEMA's modernization efforts, reconsidering how to determine which properties are subject to the requirement could help to better achieve the requirement's goal of increasing the number of high-risk properties that have flood insurance, as well as reducing the federal government's fiscal exposure to floods. NFIP reform and reauthorization offer an opportunity for Congress to better ensure the requirement can achieve its intended purposes. Further, having FEMA provide an analysis on how its new information could be used to revise how properties are designated as subject to the requirement could assist Congress in its decision-making.

In addition, FEMA has a goal to increase the number of properties that have flood insurance, which provides benefits such as protecting property owners from the financial risks of flood damage and potentially reducing federal fiscal exposure. However, the agency has not used available

[87] GAO-20-100SP.

information on compliance to understand how noncompliance with the requirement affects these objectives. As a result, FEMA may be missing opportunities to better target its outreach to communities, lenders, property owners, and other stakeholders to improve compliance with the requirement.

Matter for Congressional Consideration

Congress should consider requiring FEMA to evaluate how comprehensive and up-to-date flood risk information could be used to determine which properties should be subject to the mandatory purchase requirement and report to Congress with recommendations, if any, on revising the requirement. (Matter for Consideration 1)

Recommendations for Executive Action

The Deputy Associate Administrator of FEMA's Federal Insurance and Mitigation Administration should determine what information is available—both internally and externally—related to the mandatory purchase requirement, and use it to develop strategies for increasing consumer participation in the flood insurance market. (Recommendation 1)

The Deputy Associate Administrator of FEMA's Federal Insurance and Mitigation Administration should evaluate and report to Congress with recommendations on how comprehensive and up-to-date flood risk information could be used to determine which properties should be subject to the mandatory purchase requirement. (Recommendation 2)

Agency Comments

We provided a draft of this report to the Consumer Financial Protection Bureau, the Farm Credit Administration, FDIC, the Federal Reserve, the Department of Homeland Security, the Federal Housing Finance Agency (FHFA), the enterprises, HUD, NCUA, OCC, USDA, and VA for review and comment. The Department of Homeland Security, Farm Credit Administration, and NCUA provided written comments, which are reproduced in appendixes IV, V and VI. In addition, the Farm Credit Administration, the Federal Reserve, FDIC, FHFA, the enterprises, the Department of Homeland Security, HUD, and OCC provided technical comments, which we incorporated as appropriate. The Consumer Financial Protection Bureau, USDA, and VA did not have any comments on the draft of this report.

In its written response, the Department of Homeland Security concurred with our recommendations. In response to our first recommendation, FEMA detailed specific steps it plans to take to share data with relevant federal entities that implement the mandatory purchase requirement. In addition, FEMA plans to review external studies to develop strategies to increase consumer participation in the flood insurance market. In its technical comments, FEMA stated that it believes its efforts should continue to encourage federal entities to understand the extent of compliance with the mandatory purchase requirement, and that it could support the entities by providing insurance and risk data. While we agree with the steps FEMA outlined to review external information, we maintain that FEMA's use of its own information related to the mandatory purchase requirement could help the agency increase consumer participation in the flood insurance market.

In response to our second recommendation, FEMA detailed specific steps for how it will evaluate flood risk and how such an evaluation may be used to inform the mandatory purchase requirement. FEMA noted that comprehensive, nationwide information may not be available and that flood risk information could include information beyond what is in its floodplain maps, such as flood insurance claim data. As we stated in our report, the use of more comprehensive and up-to-date flood risk information is important to inform both FEMA and Congress on which properties should be subject to the mandatory purchase requirement.

In its technical comments, OCC expressed concerns with our finding on the prevalence of noncompliance with the mandatory purchase requirement. OCC believes that its risk-based supervision accurately reflects the state of compliance with the mandatory purchase requirement for the lenders it oversees. As we state in the report, we and others have acknowledged that the full extent of noncompliance with the mandatory purchase requirement is not known. However, our analyses of prudential regulator violation data and NFIP policy data, and related studies indicate that noncompliance may be more prevalent than indicated by the statements and examinations by the federal entities that oversee the requirement.

We are sending copies of this report to the appropriate congressional committees and members, the Secretary of Homeland Security, the Acting Director of the Consumer Financial Protection Bureau, the Board Chairman and Chief Executive Officer of the Farm Credit Administration, the Chairman of FDIC, the Chair of the Board of Governors of the Federal Reserve System, the Acting Director of FHFA, the Chief Executive Officer of Fannie Mae, the President of Freddie Mac, the Secretary of HUD, the Chairman of NCUA, the Acting Comptroller of the Currency, the Secretary of Agriculture, the Secretary of VA, and other interested parties. In addition, the report is available at no charge on the GAO website at http://www.gao.gov.

If you or your staff have any questions about this report, please contact me at (202) 512-8678 or cackleya@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix VII.

Alicia Puente Cackley
Director, Financial Markets and Community Investment

List of Congressional Requesters

The Honorable Mike Crapo
Ranking Member
Committee on Finance
United States Senate

The Honorable John Kennedy
Ranking Member
Subcommittee on Economic Policy
Committee on Banking, Housing, and Urban Affairs
United States Senate

The Honorable Bill Cassidy
Ranking Member
Subcommittee on Fiscal Responsibility and Economic Growth
Committee on Finance
United States Senate

The Honorable Mike Lee
United States Senate

The Honorable Marco Rubio
United States Senate

Appendix I: Objectives, Scope, and Methodology

Our objectives were to (1) describe federal entities' oversight of compliance with the mandatory purchase requirement, (2) examine the extent to which the Federal Emergency Management Agency (FEMA) uses information about compliance with the requirement to help increase consumer participation in the flood insurance market, and (3) examine the use of FEMA floodplain maps to determine who must purchase flood insurance.[1]

This review focuses on the mandatory purchase requirement related to federally backed mortgages. A review of the mandatory purchase requirement related to federal financial assistance programs was beyond the scope of this report.[2] To obtain an overall understanding of the mandatory purchase requirement, we reviewed relevant statutes establishing the requirement. We also reviewed our prior reports, as well as reports and studies done by federal agencies, inspectors general, the Congressional Research Service, and research organizations.[3]

To address our first objective, we reviewed statutes implementing the mandatory purchase requirement to determine which federal entities have responsibilities for implementing the requirement. We identified the following entities with responsibilities: the government-sponsored enterprises (the enterprises) for housing—Fannie Mae and Freddie Mac; Farm Credit Administration; FEMA; prudential regulators, which include the Board of Governors of the Federal Reserve System (Federal Reserve), Federal Deposit Insurance Corporation (FDIC), Office of the Comptroller of the Currency (OCC), and the National Credit Union Administration (NCUA); Federal Housing Administration (FHA); U.S. Department of Agriculture (USDA); and Department of Veterans Affairs

[1]We use the term "FEMA floodplain maps" to refer to the Flood Insurance Rate Maps that FEMA develops. Flood Insurance Rate Maps are the official maps of communities on which FEMA has delineated the special flood hazard area, the base flood elevations, and the risk premium zones applicable to the community.

[2]A separate purchase requirement applies to recipients of federal financial assistance for repair or replacement of buildings, manufactured homes, and personal property in special flood hazard areas.

[3]For example, see GAO, *Flood Insurance: Comprehensive Reform Could Improve Solvency and Enhance Resilience*, GAO-17-425 (Washington, D.C.: Apr. 27, 2017); *Flood Insurance: Extent of Noncompliance with Purchase Requirements Is Unknown*, GAO-02-396 (Washington, D.C.: June 21, 2002); and *Flood Insurance: Information on the Mandatory Purchase Requirement,* GAO/RCED-90-141FS (Washington, D.C.: Aug. 22, 1990).

(VA).[4] We reviewed applicable statutory requirements and agency regulations for these entities, as well as documentation on the policies and procedures they use to implement the requirement and conduct oversight activities and guidance documents they had developed. For the enterprises, FHA, USDA, and VA, our review focused on their oversight for single-family mortgages (defined as mortgages covering one- to four-family residences) because these types of mortgages represent the vast majority of outstanding mortgage debt. The scope of our review of the federal entities' oversight activities did not include a review of the prudential regulators' examination documentation or individual loan documentation from the enterprises, FHA, USDA, and VA. To understand FEMA's role, we reviewed documentation the agency provided to us on its role with respect to the mandatory purchase requirement and relevant agency documents and analyses.

We also analyzed nonpublic data on lenders' violations of the mandatory purchase requirement identified by the prudential regulators from 2016 through 2019 during compliance examinations.[5] The prudential regulators document lender violations related to the mandatory purchase requirement by citing the specific legal provisions lenders violate. We grouped the legal requirements associated with the various types of mandatory purchase requirement violations into a common set of broad

[4]For USDA, our review focuses on the oversight activities of Rural Development's Rural Housing Service, as this is the agency that operates relevant mortgage programs.

[5]The prudential regulators oversee depository institutions such as banks, thrifts, and credit unions. For our analysis of prudential regulators' mandatory purchase requirement violation data, we used the term "lenders" to refer to the depository institutions overseen by the prudential regulators. Our analysis represents only violations identified for mortgage loans that examiners tested during examinations from 2016 through 2019 and should not be extrapolated to represent the full universe of violations that may have occurred for all mortgage loans over that period. Moreover, the percentage of examinations in which the regulators identified violations may not be reflective of the actual level of noncompliance. We did not analyze violation data from the Farm Credit Administration because, according to agency officials, most of their regulated institutions' lending is for agricultural loans on bare land and therefore is not subject to the requirement. According to Farm Credit Administration data, as of December 31, 2020, only approximately 30 percent of the loans made by its regulated entities were for real estate purposes and may be subject to the mandatory purchase requirement.

categories.[6] We analyzed the distribution of violations by category for each regulator and for all lenders. Appendix II provides more details on the lender violation analysis.

We took various steps to assess the reliability of the data provided by the prudential regulators on violations of the Flood Disaster Protection Act of 1973 they identified during compliance examinations. First, we interviewed knowledgeable officials and reviewed related documentation from each of the prudential regulators on the systems they use to record information on violations, the processes they used to provide the data to us, and any limitations of the data. We also conducted electronic testing to identify missing data, outliers, and any obvious errors. We determined, based on these actions, that the data provided by the prudential regulators were sufficiently reliable to report information on lenders' mandatory purchase requirement violations from 2016 through 2019.

We also collected information provided by the enterprises and FHA on instances of noncompliance with their flood insurance requirements from 2016 through 2019.[7] USDA officials told us that as of May 2021, they had no open compliance findings related to the mandatory purchase requirement. In addition, VA officials told us that they do not maintain data granular enough to identify violations specific to the mandatory purchase requirement. Finally, we analyzed publically available information on civil money penalties assessed by the prudential regulators from 2016 through 2020.

We also interviewed officials from each of the federal entities with responsibilities to implement the mandatory purchase requirement and representatives of lenders and mortgage servicers, flood service companies, research organizations, and industry experts. We interviewed representatives of a total of five lenders (all federally regulated banks)

[6]We categorized violations into six broad categories based on the legal requirements and descriptions used by the prudential regulators when documenting the violations. We then internally verified the categories and deemed them appropriate for our purposes. The six categories are flood insurance coverage requirements, force-placement of flood insurance, borrower notification of flood insurance requirements, standard flood hazard determination form, flood insurance premium escrow requirements, and other. The "other" category includes other types of lender violations related to the mandatory purchase requirement that do not fit into the other categories, including failing to provide required notification to FEMA when a property's mortgage servicer changes.

[7]Information on noncompliance for FHA was from May 2017 through December 2019 because the agency made changes to its lender and loan monitoring data systems, and officials told us that information from prior to May 2017 would not be reliable.

and two mortgage servicers (both nonbank financial institutions). We selected the lenders based on the size of their single-family mortgage portfolio and their primary federal banking regulator. The five lenders we interviewed represented 19 percent of the total single-family mortgage portfolio for all banks in 2019. The two mortgage servicers were among the 10 largest in 2017, according to data from Inside Mortgage Finance.

We asked these lenders and servicers about the policies and procedures they use to comply with the mandatory purchase requirement, challenges they may face in doing so, and their experiences with federal oversight of compliance with the requirement, among other things. We also selected three flood service companies based on recommendations from federal entities and industry experts we spoke with, as well as reviewing the list of companies that had received certification by the National Flood Association for the flood determination services. To supplement these interviews and gain a broader understanding of industry compliance issues, we also interviewed representatives of three banking industry associations and two flood industry associations to gather their perspectives based on their members' experiences.

To address our second objective, we interviewed agency officials and reviewed documentation, including FEMA's 2018–2022 strategic plan, and information on agreements between FEMA and other federal entities to share National Flood Insurance Program (NFIP) policy data. We interviewed the federal entities that implement the mandatory purchase requirement to learn about the information they use and efforts they undertake to understand the level of compliance for the lenders they oversee, and we reviewed available documentation on these efforts. We assessed our findings against principles identified in GAO's Disaster Resilience Framework designed to support analysis of federal opportunities to facilitate and promote resilience to natural hazards and criteria related to federal evidence-building activities from the Foundations for Evidence-Based Policymaking Act of 2018.[8]

We also reviewed our previous work and reports and studies done by federal agencies, inspectors general, and research organizations to understand challenges associated with determining the level of compliance with the mandatory purchase requirement. We also conducted additional work, such as examining available data sources on

[8]See GAO, *Disaster Resilience Framework: Principles for Analyzing Federal Efforts to Facilitate and Promote Resilience to Natural Disasters*, GAO-20-100SP (Washington, D.C.: Oct. 23, 2019) and Pub. L. No. 115-435, 132 Stat. 5529 (2019).

federally backed mortgages and private flood insurance policies, to gain a comprehensive understanding of how to estimate lender compliance with the mandatory purchase requirement. Appendix III contains additional information on the challenges and limitations associated with estimating compliance with the mandatory purchase requirement.

We also estimated how long NFIP policies for newly purchased single-family properties (defined as properties containing one to four units) located in special flood hazard areas were maintained after they were originated (from 2014 to 2018) by analyzing data from FEMA's PIVOT system.[9] We took various steps to assess the reliability of these data. First, we interviewed FEMA officials and reviewed related documentation on the PIVOT system. We also conducted electronic testing to identify missing data, outliers, and any obvious errors. We determined that the data were sufficiently reliable to report on how long NFIP policies for newly purchased properties located in special flood hazard areas were maintained after they were originated. See appendix III for the results of this analysis, as well as information on our methodology and limitations.

To address our third objective, we reviewed statutory requirements related to the use of FEMA floodplain maps for the mandatory purchase requirement, as well as statutory and regulatory requirements related to the development of the maps and the type of flood risk information included in them. We also interviewed agency officials and reviewed documentation from FEMA on its flood hazard mapping efforts, including the development of both regulatory and nonregulatory flood map products.[10] We also reviewed reports issued by the Technical Mapping Advisory Council and an August 2020 implementation plan that provides direction to FEMA on steps to take to include information on future

[9]In October 2019, FEMA transitioned its NFIP policy and claims database from its legacy platform to a modernized system, PIVOT. PIVOT includes a number of improved system capabilities, including enhanced reporting and data analytics.

[10]FEMA produces both regulatory and nonregulatory flood map products. Regulatory flood map products are intended to be used as the basis for official actions required by NFIP, such as designating the special flood hazard areas. Nonregulatory flood map products go beyond the basic flood hazard information required in the regulatory products and, according to FEMA, provide a more user-friendly analysis of flood risks.

conditions in its flood map products.[11] Finally, we reviewed our previous work to understand challenges we identified related to FEMA's flood mapping efforts.[12]

To learn about FEMA's efforts to develop comprehensive flood risk information, we interviewed agency officials and reviewed agency documentation on changes being made to the methodology used to rate a property's flood risk to set NFIP premium rates, the agency's Future of Flood Risk Data initiative, and the development of nonregulatory flood map products. Finally, we reviewed studies from nonprofit organizations to understand the factors that affect flood risk and advances in flood hazard modeling techniques and interviewed representatives of a flood modeling organization, flood industry trade organizations, industry specialists, and researchers. We assessed our findings against principles identified in GAO's Disaster Resilience Framework designed to support analysis of federal opportunities to facilitate and promote resilience to natural hazards and our prior report that identified policy goals for evaluating options for reforming NFIP.[13]

We conducted this performance audit from June 2019 to July 2021 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

[11]The Biggert-Waters Flood Insurance Reform Act of 2012 established the Technical Mapping Advisory Council to make recommendations to FEMA on matters related to the national flood mapping program. Pub. L. No. 112-141, div. F, title II, § 100215, 126 Stat. 405, 924 (2020), (codified at 42 U.S.C. § 4101a).

[12]For example, see GAO, *FEMA Flood Maps: Some Standards and Processes in Place to Promote Map Accuracy and Outreach, but Opportunities Exist to Address Implementation Challenges*, GAO-11-17 (Washington, D.C.: Dec. 2, 2010) and *Flood Map Modernization: Program Strategy Shows Promise, but Challenges Remain*, GAO-04-417 (Washington, D.C.: Mar. 31, 2004).

[13]GAO-20-100SP and GAO-17-425.

Appendix II: Lender Violations of the Mandatory Purchase Requirement

This appendix presents analysis of lender violations of the mandatory purchase requirement identified by the prudential regulators—which include the Board of Governors of the Federal Reserve System (Federal Reserve), Federal Deposit Insurance Corporation (FDIC), Office of the Comptroller of the Currency (OCC), and National Credit Union Administration (NCUA)—during compliance examinations from 2016 through 2019.[1]

Methodology and Limitations

We report data on the number of violations cited by the prudential regulators during compliance examinations in a given year.[2] The regulators conduct compliance examinations of all lenders they oversee. The frequency with which regulators conduct examinations varies and, therefore, lenders do not necessarily receive a compliance examination every year.[3]

As a result, our analysis only provides information on the violations identified by prudential regulators from 2016 through 2019 at institutions they examined and is not an estimate of the number of violations committed by all lenders during all of those years. Further, compliance examinations may only test a sample of loans for each lender. Therefore, consistent with how compliance examinations are conducted, the data we received do not necessarily represent all violations committed by a lender that was examined; rather, the data only represent the number of violations identified by regulators during their examinations in a given year. Finally, one observation of a violation type in the data we received

[1]We use the term “lenders” in this appendix to refer to depository institutions such as banks, thrifts, and credit unions that are overseen by the prudential regulators.

[2]Due to differences in the way the regulators documented their examination data, there may be differences in when the regulators cited an institution for a violation. For example, some regulators documented the date on which the examiners identified a violation during an examination, whereas others documented the date on which the violation was cited in the examination report. Because examination reports are issued at the end of an examination, it is possible that the violations cited by a regulator in an examination report were identified by examiners in a previous year.

[3]The length of time between examinations is determined by several factors, including the size of the institution, the previous examination rating received by an institution, and the statutory requirement for examinations applicable to each regulator. The scope of our report did not include a review of the regulators’ frequencies of examinations. However, in 2016, we found that the prudential regulators and the Farm Credit Administration used risk-based examinations in their oversight of their institutions. Each regulator had procedures for reviewing a regulated lending institution’s compliance with the flood insurance requirements. GAO, *Flood Insurance: Potential Barriers Cited to Increase Use of Private Insurance,* GAO-16-611 (Washington, D.C.: July 14, 2016).

may represent a single instance or multiple instances of a violation identified by a regulator. Therefore, information we present on the total number of violations represents the number of times a regulator cited a lender for a particular violation of the law or regulations, rather than the total number of instances in which a lender violated a provision of the mandatory purchase requirement. We also present information on the percentage of examinations in which the regulators identified violations from 2016 through 2019. This percentage may not be reflective of the actual level of noncompliance.[4]

We also analyzed the distribution of different types of violations identified by each prudential regulator. The prudential regulators document lender violations related to the mandatory purchase requirement by citing the specific legal provisions lenders violate. Because each prudential regulator has a different method for documenting violations associated with the mandatory purchase requirement, we grouped the legal requirements associated with the various types of mandatory purchase requirement violations into a common set of broad categories to apply to violations across all four regulators. We categorized violations into six categories based on the legal requirements and descriptions used by the prudential regulators when documenting the violations. Our categories included the following:

- **Flood insurance coverage requirements.** This category includes lender violations for failing to require flood insurance at the time of mortgage origination; failing to require insurance for the term of the loan; or failing to require sufficient insurance coverage when making, increasing, extending, or renewing a loan secured by a property in a special flood hazard area.
- **Force-placement of flood insurance.** This category generally includes lender violations for failing to notify borrowers to obtain flood insurance if a property is determined to have no or insufficient insurance, failing to force-place a flood insurance policy if a property is determined to have no or insufficient insurance, or failing to cancel the placed policy if the borrower provides proof of sufficient coverage.
- **Borrower notification of flood insurance requirements.** This category generally includes lender violations for failing to notify a

[4]A violation identified at one lender may not indicate the same prevalence of noncompliance as a violation identified at a different lender due to variation in lender size and number of mortgages originated.

borrower of the availability of flood insurance if a property is located in a special flood hazard area.

- **Standard flood hazard determination form.** This category includes lender violations for failing to use or retain the standard flood determination form.
- **Flood insurance premium escrow requirements.** This category generally includes lender violations for failing to escrow flood insurance premiums for loans within a special flood hazard area, failing to deposit those premiums in an escrow account, and failing to pay premiums to flood insurance providers when due.
- **Other.** This category includes other types of lender violations related to the mandatory purchase requirement that do not fit into the other categories, including failing to provide required notification to the Federal Emergency Management Agency when a property's mortgage servicer changes.

Results of Violations Analysis

Federal Reserve

From 2016 through 2019, the Federal Reserve oversaw approximately 878 lenders. Over that period, 16 percent of the 1,045 compliance examinations conducted by the agency identified lender violations of the mandatory purchase requirement (see table 2).

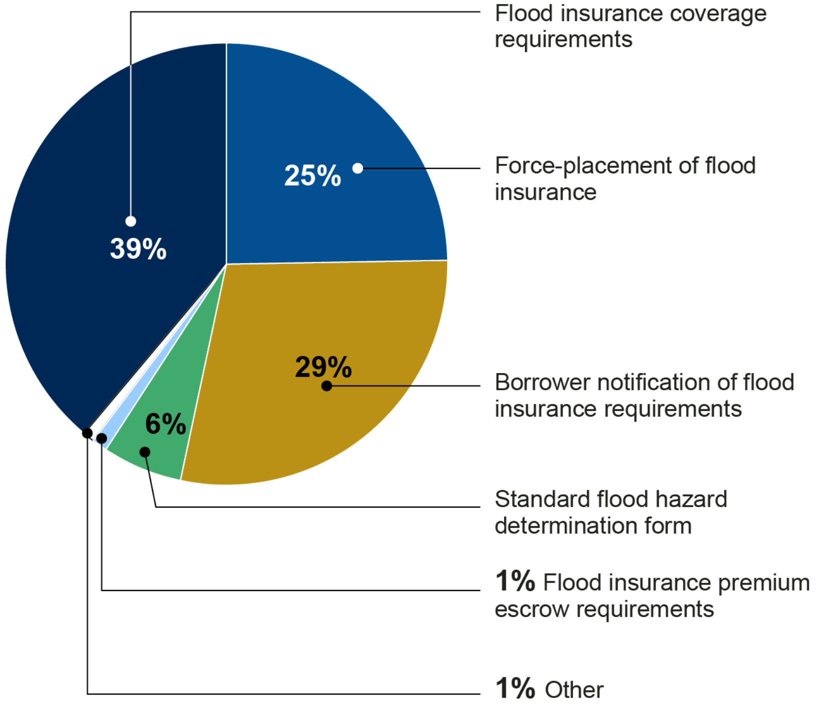
Table 2: Overview of Mandatory Purchase Requirement Violations Identified by the Federal Reserve, 2016–2019

Year	Number of mandatory purchase requirement violations identified during examinations	Number of examinations with violations of the mandatory purchase requirement	Number of examinations administered	Percentage of examinations with violations of the mandatory purchase requirement
2016	92	52	237	22
2017	54	37	247	15
2018	59	38	277	14
2019	62	36	284	13
Total	**267**	**163**	**1,045**	**16**

Source: GAO analysis of the Board of Governors of the Federal Reserve System (Federal Reserve) compliance examination data. | GAO-21-578

Figure 5 shows that the most common types of mandatory purchase requirement violations identified by the Federal Reserve involved flood insurance coverage requirements (39 percent), borrower notifications of flood insurance requirements (29 percent), and force-placement of flood insurance (25 percent).

Figure 5: Distribution of Types of Violations of the Mandatory Purchase Requirement Identified by the Federal Reserve, 2016–2019



Flood insurance coverage requirements: Failure to require flood insurance at the time of mortgage origination; failure to require insurance for the term of the loan; or failure to require sufficient insurance coverage when making, increasing, extending, or renewing a loan secured by a property in a special flood hazard area

Force-placement of flood insurance: Generally includes failure to notify borrowers to obtain flood insurance if a property is determined to have no or insufficient insurance, failure to force-place a flood insurance policy if a property is determined to have no or insufficient insurance, or failure to cancel the placed policy if the borrower provides proof of sufficient coverage

Borrower notification of flood insurance requirements: This category generally includes lender violations for failing to notify a borrower of the availability of flood insurance if a property is located in a special flood hazard area.

Standard flood hazard determination form: Failure to use or retain the standard flood determination form

Flood insurance premium escrow requirements: Generally includes failure to escrow flood insurance premiums for loans within a special flood hazard area, failure to deposit those premiums in an escrow account, or failure to pay premiums to flood insurance provider when due

Other: Other violations, which can include failure to provide required notification to the Federal Emergency Management Agency when a property's mortgage servicer changes

Source: GAO analysis of Board of Governors of the Federal Reserve System (Federal Reserve) compliance examination data. | GAO-21-578

Note: Total does not sum to 100 percent due to rounding.

FDIC

From 2016 through 2019, FDIC oversaw approximately 3,882 lenders. Over that period, 23 percent of the 4,929 compliance examinations conducted by the agency identified lender violations of the mandatory purchase requirement (see table 3).

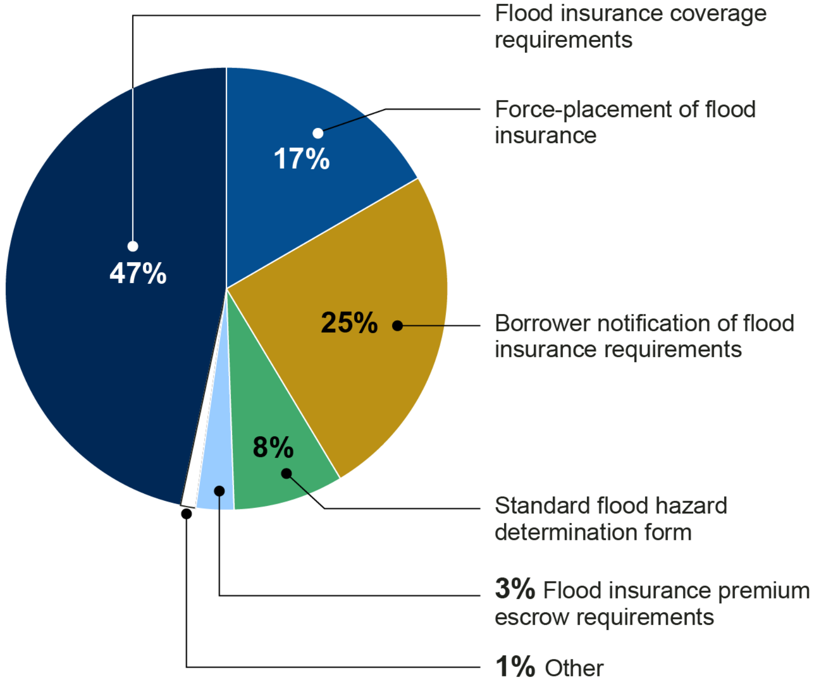
Table 3: Overview of Mandatory Purchase Requirement Violations Identified by FDIC, 2016–2019

Year	Number of mandatory purchase requirement violations identified during examinations	Number of examinations with violations of the mandatory purchase requirement	Number of examinations administered	Percentage of examinations with violations of the mandatory purchase requirement
2016	549	304	1,317	23
2017	529	299	1,177	25
2018	424	259	1,264	20
2019	472	255	1,171	22
Total	**1,974**	**1,117**	**4,929**	**23**

Source: GAO analysis of Federal Deposit Insurance Corporation (FDIC) compliance examination data. | GAO-21-578

Figure 6 shows that the most common types of mandatory purchase requirement violations identified by FDIC involved flood insurance coverage requirements (47 percent), borrower notifications of flood insurance requirements (25 percent), and force-placement of flood insurance (17 percent).

Figure 6: Distribution of Types of Violations of the Mandatory Purchase Requirement Identified by FDIC, 2016–2019



Flood insurance coverage requirements: Failure to require flood insurance at the time of mortgage origination; failure to require insurance for the term of the loan; or failure to require sufficient insurance coverage when making, increasing, extending, or renewing a loan secured by a property in a special flood hazard area

Force-placement of flood insurance: Generally includes failure to notify borrowers to obtain flood insurance if a property is determined to have no or insufficient insurance, failure to force-place a flood insurance policy if a property is determined to have no or insufficient insurance, or failure to cancel the placed policy if the borrower provides proof of sufficient coverage

Borrower notification of flood insurance requirements: This category generally includes lender violations for failing to notify a borrower of the availability of flood insurance if a property is located in a special flood hazard area.

Standard flood hazard determination form: Failure to use or retain the standard flood determination form

Flood insurance premium escrow requirements: Generally includes failure to escrow flood insurance premiums for loans within a special flood hazard area, failure to deposit those premiums in an escrow account, or failure to pay premiums to flood insurance provider when due

Other: Other violations, which can include failure to provide required notification to the Federal Emergency Management Agency when a property's mortgage servicer changes

Source: GAO analysis of Federal Deposit Insurance Corporation (FDIC) compliance examination data. | GAO-21-578

Note: Total does not sum to 100 percent due to rounding.

NCUA

From 2016 through 2019, NCUA oversaw approximately 5,983 lenders. Over that period, 2 percent of the 14,010 compliance examinations conducted by the agency identified lender violations of the mandatory purchase requirement (see table 4).

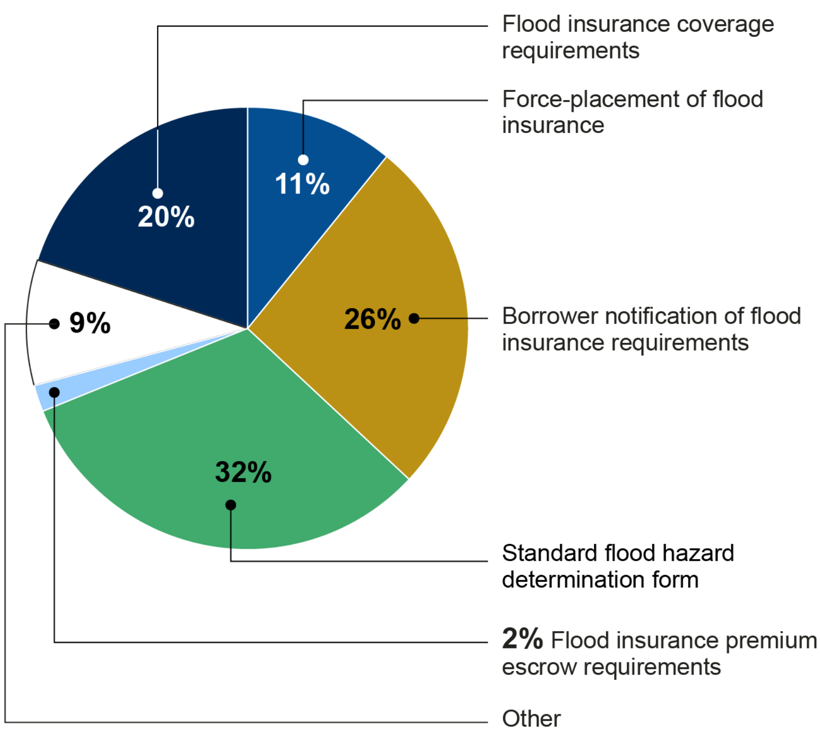
Table 4: Overview of Mandatory Purchase Requirement Violations Identified by NCUA, 2016–2019

Year	Number of mandatory purchase requirement violations identified during examinations	Number of examinations with violations of the mandatory purchase requirement	Number of examinations administered	Percentage of examinations with violations of the mandatory purchase requirement
2016	96	86	4,235	2
2017	90	82	3,400	2
2018	117	90	3,317	4
2019	97	90	3,058	3
Total	**400**	**348**	**14,010**	**2**

Source: GAO analysis of National Credit Union Administration (NCUA) compliance examination data. | GAO-21-578

Figure 7 shows that the most common types of mandatory purchase requirement violations identified by NCUA involved the standard flood hazard determination form (32 percent), borrower notifications of flood insurance requirements (26 percent), and flood insurance coverage requirements (20 percent).

Figure 7: Distribution of Types of Violations of the Mandatory Purchase Requirement Identified by NCUA, 2016–2019



Flood insurance coverage requirements: Failure to require flood insurance at the time of mortgage origination; failure to require insurance for the term of the loan; or failure to require sufficient insurance coverage when making, increasing, extending, or renewing a loan secured by a property in a special flood hazard area

Force-placement of flood insurance: Generally includes failure to notify borrowers to obtain flood insurance if a property is determined to have no or insufficient insurance, failure to force-place a flood insurance policy if a property is determined to have no or insufficient insurance, or failure to cancel the placed policy if the borrower provides proof of sufficient coverage

Borrower notification of flood insurance requirements: This category generally includes lender violations for failing to notify a borrower of the availability of flood insurance if a property is located in a special flood hazard area.

Standard flood hazard determination form: Failure to use or retain the standard flood determination form

Flood insurance premium escrow requirements: Generally includes failure to escrow flood insurance premiums for loans within a special flood hazard area, failure to deposit those premiums in an escrow account, or failure to pay premiums to flood insurance provider when due

Other: Other violations, which can include failure to provide required notification to the Federal Emergency Management Agency when a property's mortgage servicer changes

Source: GAO analysis of National Credit Union Administration (NCUA) compliance examination data. | GAO-21-578

OCC

From 2016 through 2019, OCC oversaw approximately 1,315 lenders. Over that period, 13 percent of the 3,917 compliance examinations conducted by the agency identified lender violations of the mandatory purchase requirement (see table 5).

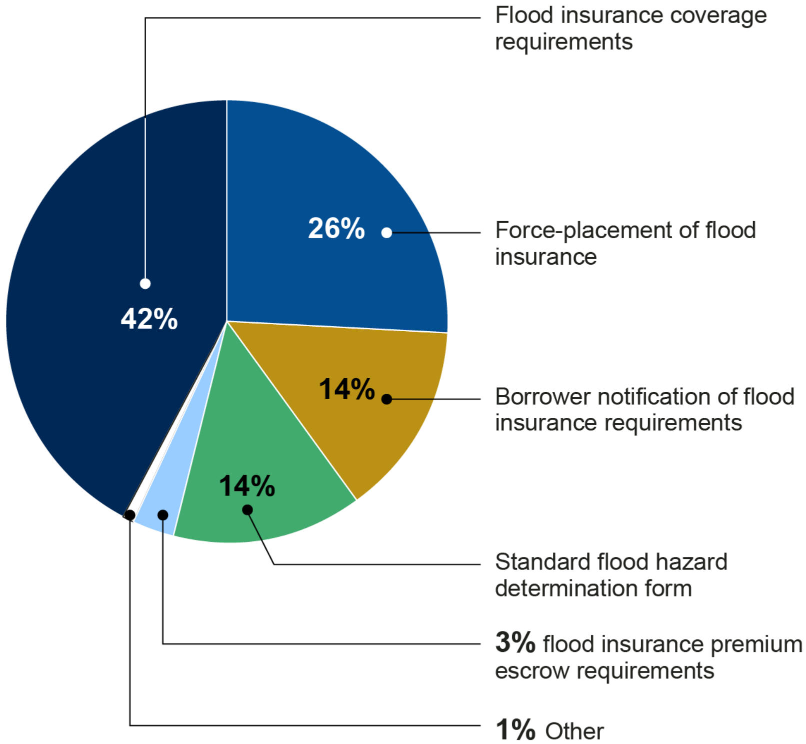
Table 5: Overview of Mandatory Purchase Requirement Violations Identified by OCC, 2016–2019

Year	Number of mandatory purchase requirement violations identified during examinations	Number of examinations with violations of the mandatory purchase requirement	Number of examinations administered	Percentage of examinations with violations of the mandatory purchase requirement
2016	203	144	1,064	14
2017	216	155	1,015	15
2018	142	110	990	11
2019	109	82	848	10
Total	**670**	**491**	**3,917**	**13**

Source: GAO analysis of Office of the Comptroller of the Currency (OCC) compliance examination data. | GAO-21-578

Figure 8 shows that the most common types of mandatory purchase requirement violations identified by OCC involved flood insurance coverage requirements (42 percent), force-placement of flood insurance (26 percent), and borrower notification of flood insurance requirements and the standard flood hazard determination form (both 14 percent).

Figure 8: Distribution of Types of Violations of the Mandatory Purchase Requirement Identified by OCC, 2016–2019



Flood insurance coverage requirements: Failure to require flood insurance at the time of mortgage origination; failure to require insurance for the term of the loan; or failure to require sufficient insurance coverage when making, increasing, extending, or renewing a loan secured by a property in a special flood hazard area

Force-placement of flood insurance: Generally includes failure to notify borrowers to obtain flood insurance if a property is determined to have no or insufficient insurance, failure to force-place a flood insurance policy if a property is determined to have no or insufficient insurance, or failure to cancel the placed policy if the borrower provides proof of sufficient coverage

Borrower notification of flood insurance requirements: This category generally includes lender violations for failing to notify a borrower of the availability of flood insurance if a property is located in a special flood hazard area.

Standard flood hazard determination form: Failure to use or retain the standard flood determination form

Flood insurance premium escrow requirements: Generally includes failure to escrow flood insurance premiums for loans within a special flood hazard area, failure to deposit those premiums in an escrow account, or failure to pay premiums to flood insurance provider when due

Other: Other violations, which can include failure to provide required notification to the Federal Emergency Management Agency when a property's mortgage servicer changes

Source: GAO analysis of Office of the Comptroller of the Currency (OCC) compliance examination data. | GAO-21-578

Appendix III: Information Related to Mandatory Purchase Requirement Compliance

This appendix discusses information needed to determine the level of compliance with the mandatory purchase requirement and challenges associated with obtaining needed data. It also summarizes studies by researchers and federal entities that estimate compliance with the requirement, including the scope and results of each study. Finally, we present results of our analysis of how long National Flood Insurance Program (NFIP) policies are generally maintained on properties located in special flood hazard areas.

Information Needed and Challenges Associated with Determining a Rate of Compliance with the Mandatory Purchase Requirement

A compliance rate is a point-in-time estimate of compliance with the mandatory purchase requirement. To determine a compliance rate, the following data are needed:

- mortgage data on active, federally backed mortgages;[1]
- data on active flood insurance policies associated with federally backed mortgages; [2] and
- Federal Emergency Management Agency (FEMA) floodplain maps that identify special flood hazard areas.

To calculate a rate of compliance, these data points would need to be merged to determine how many properties with active, federally backed mortgages are located in a special flood hazard area and are covered by flood insurance. More specifically, to determine the number of mortgages subject to the requirement, federally backed mortgage data would first need to be merged with flood insurance policy data. Next, geographic

[1]Federally backed mortgages are those made, insured, or guaranteed by federally regulated lenders or federal agencies, or purchased by the government-sponsored enterprises (enterprises) for housing—Fannie Mae and Freddie Mac. Special flood hazard areas represent the land areas that would be submerged by the floodwaters of the "base flood" or a flood that has a 1 percent chance of being equaled or exceeded in any given year. The mandatory purchase requirement applies to properties with federally backed mortgages located in these areas. See 44 C.F.R. § 64.3.

[2]The Biggert-Waters Flood Insurance Reform Act of 2012 required federal regulators to direct lenders to accept private flood insurance policies that meet the statutory definition of private flood insurance, and the regulators implemented this requirement, effective in July 2019. (Loans in Areas Having Special Flood Hazards 84 Fed. Reg. 4953 (Feb. 20. 2019)). The Biggert-Waters Act's private insurance provisions did not apply to the Federal Housing Administration (FHA), the U.S. Department of Agriculture (USDA), or the Department of Veterans Affairs (VA) in their capacities as insurers and guarantors of mortgage loans. Nevertheless, USDA published a rule requiring the acceptance of private flood insurance policies (Single Family Housing Guaranteed Loan Program 81 Fed. Reg. 6418 (Feb. 8, 2016)), and VA updated its lender guidance to provide a veteran the option to purchase private flood insurance. FHA has published a proposed rule regarding the acceptance of private flood insurance policies. Acceptance of Private Flood Insurance for FHA-Insurance Mortgages 85 Fed. Reg. 74630 (Nov. 23, 2020).

variables, such as property addresses or geocoded coordinates, would be used to identify which of these mortgages are located in the special flood hazard areas. The compliance rate would be calculated by dividing the number of properties that are in compliance with the mandatory purchase requirement (properties with active, federally backed mortgages located in special flood hazard areas that have flood insurance policies) by the total number of properties that are subject to the mandatory purchase requirement (all properties with active, federally backed mortgages located in special flood hazard areas). For the mortgage loan to remain in compliance with the requirement, a flood insurance policy must be maintained for the life of the loan. To understand the level of compliance with the mandatory purchase requirement over time, compliance would need to be monitored over the life of the loan. To do this, the compliance rate would need to be recalculated throughout the life of the mortgage with updated mortgage loan and insurance information and information on revisions to special flood hazard areas.

In 2002, we reported on challenges associated with obtaining and analyzing the data needed to estimate compliance with the requirement.[3] For this review, we explored available information on mortgages, private flood insurance, and FEMA floodplain maps to determine if we could provide a comprehensive understanding of compliance with the requirement. We were unable to do so because of data limitations discussed in detail below.

Mortgage information. We reviewed two data sources on federally backed mortgages, the National Mortgage Database and Home Mortgage Disclosure Act data. The National Mortgage Database is a nationally representative, 5 percent sample of closed-end first-lien residential mortgages in the United States identified through mortgage loans reported to a credit reporting agency.[4] The data include information on the characteristics and performance of each mortgage loan. The Home Mortgage Disclosure Act requires covered financial institutions to annually report data on new loans, including both closed-end mortgages and open-

[3]GAO, *Flood Insurance: Extent of Noncompliance with Purchase Requirements Is Unknown*, GAO-02-396 (Washington, D.C.: June 21, 2002).

[4]The National Mortgage Database is managed jointly by the Federal Housing Finance Agency and the Consumer Financial Protection Bureau.

end lines of credit, made in the previous year.[5] These data include information on the type, purpose, and characteristics of each home mortgage application and origination or purchased loan.[6]

We found limitations associated with the geographic information available for both of these sources:

- The National Mortgage Database did not include any property addresses associated with mortgage loans; only census tracts were available for mortgages included in the sample. The granularity of the geographic information available in this database impacted our ability to merge the data with flood insurance data and also to determine if the mortgaged properties are located in special flood hazard areas.
- In 2018, data requirements were expanded for Home Mortgage Disclosure Act data. Among other things, financial institutions were required to report property address information associated with mortgage loans. These additional data would have allowed us to estimate compliance rates for more recent years. However, because property address information was only available for recent years, it would not have allowed us to develop a comprehensive understanding of compliance over the life of mortgage loans or to identify any trends and patterns in compliance over time.

Given these limitations and others discussed in this appendix, we did not use these data to estimate a compliance rate.[7]

Private flood insurance policy information. Data on private flood insurance policies that include property address information are not

[5]Financial institutions report these data to the Consumer Financial Protection Bureau. A closed-end mortgage is an extension of credit that is secured by a lien on a dwelling and is not open-ended. An open-end line of credit is an extension of credit secured by a lien on a dwelling that may be used repeatedly over the term of the loan. Home Mortgage Disclosure Act requirements also extend to some purchased loans, according to the Consumer Financial Protection Bureau.

[6]We recently examined the effect of exempting some institutions from reporting additional Home Mortgage Disclosure Act data. See GAO, *Home Mortgage Disclosure Act: Reporting Exemptions Had a Minimal Impact on Data Availability, but Additional Information Would Enhance Oversight*, GAO-21-350 (Washington, D.C.: May 17, 2021).

[7]It is possible that some private data sources, available at a cost, might contain the geographic information on mortgage loans needed for an analysis of the compliance rate for the mandatory purchase requirement. We explored data from private vendors, such as Corelogic and S&P. However, we did not pursue these sources because such data would still not allow for a comprehensive understanding of compliance.

available. We met with officials from the National Association of Insurance Commissioners (NAIC) to discuss the availability of data on private flood insurance policies, and they told us that data are not available at the individual policy level, which includes data on the property addresses associated with flood insurance policies. Without this information, it is not possible to determine if a property that is subject to the mandatory purchase requirement has an associated private insurance policy, rather than an NFIP policy (both would meet the requirement).[8] NAIC officials told us that NAIC began collecting data on the number of private flood insurance policies in August 2020, but those data do not include individual policy information, such as property address.

Further, changes made by the Biggert-Waters Flood Insurance Reform Act of 2012 that required federal regulators to direct lenders to accept private flood insurance policies that meet the statutory definition of private flood insurance were implemented by the regulators in July 2019. USDA and VA also now accept private flood insurance to satisfy the mandatory purchase requirement, and FHA has a proposed rule to do so. These changes may add additional challenges to obtaining and analyzing the data needed to estimate a comprehensive estimate of compliance with the requirement.

FEMA floodplain maps. There are also challenges associated with using FEMA's floodplain maps to determine flood zones associated with properties. For example:

- Researchers told us that determining the flood zone associated with a mortgage can be difficult, particularly for land parcels that contain several structures. That is, if the boundary of a special flood hazard area cuts across a land parcel with multiple structures, the property address may not represent the structure that would require insurance coverage.
- Properties that fall in special flood hazard area boundaries on floodplain maps may not be subject to the requirement. For example, some property owners may be able to remove the designation of being located in a special flood hazard areas (and thus, the requirement to purchase flood insurance) through a map amendment

[8]In 2018, a study estimated that private flood insurance policies accounted for approximately 3.5 to 4.5 percent of all active primary residential flood policies. See Wharton Risk Management and Decision Processes Center, *The Emerging Private Residential Flood Insurance Market in the United States* (Philadelphia, PA: July 2018).

process.[9] Developing a comprehensive compliance estimate would be challenging because it would require a review of all of these amendments to determine whether a property is subject to the mandatory purchase requirement.

- FEMA floodplain maps are continually changing, and a comprehensive history of floodplain maps may not be readily available.[10] The database that FEMA makes available to the public that contains flood hazard data, including special flood hazard area boundaries, only contains current flood maps and does not contain information on historical special flood hazard area boundaries. As a result, it is difficult to track if a property was in compliance for the duration of a mortgage loan.

Review of Studies That Provide a Mandatory Purchase Requirement Compliance Rate Estimate

To understand how others have attempted to estimate the compliance rate with the mandatory purchase requirement, we reviewed studies conducted by federal agencies and private organizations. We identified research related to NFIP and the mandatory purchase requirement from 1999 to 2019.[11] We also reviewed studies identified by officials at FEMA and other federal agencies. We reviewed the methodology and limitations

[9]Through the Letter of Map Amendment and Letter of Map Revision processes, an individual who owns, rents, or leases property may submit certain mapping and survey information to FEMA and request that FEMA issue a document that officially removes a property or structure from the special flood hazard area. According to FEMA officials, the agency receives about 25,000 Letters of Map Amendment and Letters of Map Revision each year.

[10]There are some tools that have become available to assist with providing historical map information. For example, FEMA has developed a nonregulatory product that reviews changes to floodplain maps for communities that undergo remapping. In addition, research published in April 2021 collected hard copies of historical FEMA floodplain maps to create a time series of floodplain designations. See M. Hino and M. Burke, “The Effect of Information about Climate Risk on Property Values,” *Proceedings of the National Academy of Sciences*, vol. 118, no. 17 (2021).

[11]We conducted literature searches of various databases, such as ProQuest, EBSCO, and National Academies Press, using specific search terms to identify existing studies from sources such as peer-reviewed journals.

of the studies that met our criteria to ensure that the results were sufficiently reliable to report.[12]

Table 6 outlines the studies we identified that contain an estimate of the mandatory purchase requirement compliance rate. Each study we reviewed encountered some type of limitations with the data used to develop the estimate and, therefore, none of these estimates should be considered a conclusive estimate of mandatory purchase requirement compliance. The results of these studies should not be compared because the studies use different time frames, methodologies, and geographic areas.

Table 6: Studies That Provide an Estimate of a Mandatory Purchase Requirement Compliance Rate

Year	Organization and study title	Study scope	Data sources	Results
2020	Department of Housing and Urban Development (HUD) Office of Policy Development and Research Flood Insurance Coverage of Federal Housing Administration Single-Family Homes (Washington, D.C.: Mar. 30, 2020)	Reviewed Federal Housing Administration-insured single-family properties in Florida and North Carolina from 2011 to 2019	HUD Single-Family Data Warehouse System, National Flood Insurance Program (NFIP) policy database, and Federal Emergency Management Agency (FEMA) floodplain maps	65 percent of properties in special flood hazard areas in Florida had flood insurance[a] 50 percent of properties in special flood hazard areas in North Carolina had flood insurance[a]
2017	RAND Corporation The Cost and Affordability of Flood Insurance in New York City (Arlington, VA: 2017)	Reviewed a sample of 2,800 properties in New York City in 2012 and 2016	NFIP policy database and survey data from sample property owners	70 percent compliance among sampled properties in 2016
2006	RAND Corporation The National Flood Insurance Program's Market Penetration Rate: Estimates and Policy Implications (Arlington, VA: 2006)	Reviewed a statistical sample of approximately 750 single-family homes from 100 NFIP communities across the United States as of March 2003	NFIP policy database and property parcel data purchased from First American Real Estate Solutions	75 to 80 percent compliance nationwide 80 to 90 percent compliance in the South and West 45 to 50 percent compliance in the Northeast and Midwest

[12]We selected studies using the following criteria: (1) the study authors conducted original research that estimated a flood insurance take-up rate (defined as the percentage of properties covered by flood insurance policies in a given area) or a mandatory purchase requirement compliance rate, and (2) the study did not examine how flood insurance take-up and mandatory purchase requirement compliance rates were affected by a disaster event, such as a hurricane. For the studies conducted by federal entities, our only criterion was that the study had to have estimated compliance with the mandatory purchase requirement.

Year	Organization and study title	Study scope	Data sources	Results
2000	FEMA Office of Inspector General Opportunities to Enhance Compliance with Homeowner Flood Insurance Purchase Requirements, I-02-00 (Washington, D.C.: Aug. 7, 2000)	Reviewed a sample of 4,200 properties located in special flood hazard areas in 10 states from May 1999 to February 2000	Local property records, NFIP policy database, and FEMA floodplain maps	90 percent compliance among sampled properties[b]

Source: GAO analysis of cited research studies. | GAO-21-578

[a]The authors of the study noted that these estimates of flood insurance coverage should not be considered conclusive estimates of compliance because of limitations with available data to determine flood zone status, such as the lack of data on elevation certificates. Moreover, the data could not be used to determine how many of the other properties were required to carry flood insurance. Further, these figures are based on a conservative estimate of the number of Federal Housing Administration-insured properties that fall inside a special flood hazard area. These estimates excluded properties with inaccurate geographic coordinates from the count of properties within the special flood hazard area.

[b]The authors of the study noted the sample of communities in 10 states included a disproportionate number of properties in coastal communities primarily because of a higher level of new development in those areas. The authors also noted that these type of properties typically demonstrate a higher rate of compliance with flood insurance requirements. Therefore, the results of the review do not represent the rate of compliance throughout the United States.

Review of How Long NFIP Policies Located in Special Flood Hazard Areas Are Maintained

Methodology

In lieu of estimating a comprehensive mandatory purchase requirement compliance rate, we obtained NFIP policy data from FEMA's PIVOT system as of September 30, 2020, to determine how long NFIP flood insurance policies for newly purchased properties located in special flood hazard areas were maintained after they were originated (survival rate).[13]

[13]Our analysis used the following NFIP policy data variables: flood zone, occupancy type, policy address, policy status, and property purchase date. The special flood hazard areas are defined by FEMA as A, AI-30, AE, AO, A99, AH, AR, V, VI-30, VE, and VO. Zones A (A1-30), AE, AH, AO, V, VE, VO, and V1-30 constitute the designated special flood hazard areas on FEMA floodplain maps. V zones are distinguished from A zones in that V zones are subject to wave action (i.e., coastal flooding). Zone AR is an area where a levee or similar structure is determined not to provide sufficient flood protection but is undergoing restoration, and Zone A99 is an area where a federal flood protection structure is under construction to provide the necessary flood protection standard. For the purposes of our analysis, we did not review the number of insurance claims associated with these policies.

We excluded NFIP policies with terms longer than 1 year.[14] We also excluded NFIP policies on condominiums because condominiums can be insured individually in addition to being insured through a master building policy. Further, an overwhelming majority of NFIP policies are associated with non-condominium units.

We relied on the property purchase date and other variables to identify the subset of policies we believed were likely to have been originated as the result of a property purchase.[15] Using the property purchase date variable, we aggregated addresses for the properties covered by these policies by the year the policy was originated and estimated the percentage of newly purchased properties that maintained their policy in subsequent years. Our analysis tracked NFIP policies originated from 2014 through 2018. We excluded properties for which we did not observe and could not infer a property purchase date, and properties for which we determined that the first originated flood insurance policy we observed was unlikely to be directly associated with the purchase of the property. We conducted a sensitivity analysis on the assumptions used to develop the survival rate estimates.[16]

We took various steps to assess the reliability of FEMA's PIVOT system data. First, we interviewed FEMA officials and reviewed related documentation on the PIVOT system. We also conducted electronic testing to identify missing data, outliers, and any obvious errors. We determined that the data were sufficiently reliable to report on how long

[14]A standard NFIP policy has a policy term of 1 year. In the event of a major disaster, FEMA issues group flood insurance policies for disaster survivors approved for FEMA disaster assistance. The term of the group insurance policy is 3 years, after which the disaster survivor is responsible for maintaining a standard NFIP policy. Failure to maintain flood insurance will affect eligibility for future disaster assistance.

[15]According to FEMA, the property purchase date variable was not required for most policies until 2013. We began our analysis in the first calendar year where the sample of addresses for which we were able to determine purchase dates represented a large enough share of all addresses with policy originations in that calendar year, which was 2014.

[16]We made various assumptions to estimate policy survival rates from the data (for example, whether two policy holders with similar names were actually the same policy holder). To assess the effect of these assumptions on survival rates, we estimated separate survival rates under different sets of assumptions. We found that our estimates were highly similar across all different sets of assumptions.

NFIP policies for properties located in special flood hazard areas were maintained after they were originated.

Results

Table 7 presents the results of our analysis of NFIP policies originated between 2014 and 2018 for newly purchased properties located in special flood hazard areas. For example, these results show that 72 percent of newly purchased properties located in special flood hazard areas that had NFIP policies originated in 2014 still had an NFIP policy in 2019.[17]

Table 7: Percentage of Newly Purchased National Flood Insurance Program Policies Maintained, by Year of Origination, 2014–2018

Policy origination year	Number of years after policy origination	Post-origination year	Percentage of properties maintaining their policy
2014	1	2015	92
2014	2	2016	87
2014	3	2017	82
2014	4	2018	77
2014	5	2019	72
2015	1	2016	92
2015	2	2017	87
2015	3	2018	81
2015	4	2019	75
2016	1	2017	89
2016	2	2018	82
2016	3	2019	77
2017	1	2018	88
2017	2	2019	82
2018	1	2019	89

Source: GAO analysis of the Federal Emergency Management Agency's PIVOT data. | GAO-21-578

Limitations

This analysis does not provide an estimate of compliance with the mandatory purchase requirement. There are a variety of reasons that a property located in special flood hazard area may drop an NFIP policy

[17]As discussed, our analysis focused on NFIP policies for newly purchased single-family properties (defined as properties containing one to four units) located in special flood hazard areas. The address is the unit of observation to determine the presence or absence of an active NFIP policy in each calendar year following policy origination. Aggregating addresses by origination cohort (the year in which the policy was originated) allows us to estimate the percentage of newly originated policies on properties located in special flood hazard areas that survived over time regardless of changes in ownership.

after its origination and not be considered out of compliance with the mandatory purchase requirement. For example:

- The property owner may no longer have a federally backed mortgage associated with the property and therefore would not be required to maintain a flood insurance policy.
- The property owner may have switched from an NFIP policy to a private flood insurance policy and would still be in compliance with the mandatory purchase requirement.
- A property may have undergone a foreclosure, so a borrower's NFIP policy would no longer be needed.
- The boundary of the special flood hazard area may have changed after the NFIP policy was originated and, therefore, the property may no longer be located in a special flood hazard area and would not be subject to the mandatory purchase requirement.
- Our analysis only includes owners of properties located in special flood hazard areas who purchased NFIP policies. There may be additional property owners in these areas who are subject to the mandatory purchase requirement who have only purchased private flood insurance policies. Property owners with private flood insurance policies would be considered in compliance with the requirement, but are not included in our analysis. To the extent that such owners are present in these areas, our results would represent an underestimate of the compliance rate.
- Finally, our analysis does not account for property owners who are subject to the mandatory purchase requirement but who never purchased either an NFIP or private flood insurance policy. Our analysis does not allow us to observe these property owners, who would be considered not in compliance with the requirement. To the extent that such owners are present in these areas, our results would represent an overestimate of the compliance rate.

Appendix IV: Comments from the Department of Homeland Security

U.S. Department of Homeland Security
Washington, DC 20528

Homeland Security

July 22, 2021

Alicia Puente Cackley
Director, Financial Markets and Community Investment
U.S. Government Accountability Office
441 G Street, NW
Washington, DC 20548

Re: Management Response to Draft Report GAO-21-578, "National Flood Insurance Program: Congress Should Consider Updating the Mandatory Purchase Requirement"

Dear Ms. Cackley:

Thank you for the opportunity to comment on this draft report. The U.S. Department of Homeland Security (DHS or the Department) appreciates the U.S. Government Accountability Office's (GAO) work in planning and conducting its review and issuing this report.

The Department is pleased to note GAO's recognition of the Federal Emergency Management Agency's (FEMA) efforts to increase consumer purchase of flood insurance as part of the Agency's 2018-2022 Strategic Plan. For example, FEMA is taking action to achieve its goal of doubling the number of U.S. properties covered by a flood insurance policy by 2023, including through community and stakeholder outreach efforts on the impact of flooding and the importance of insurance. It is important to reiterate, however, as highlighted in the draft report, that while FEMA administers the National Flood Insurance Program (NFIP), it does not have authority to enforce lender compliance with the mandatory flood insurance purchase requirement, which is the responsibility of at least 10 other federal entities.

The draft report contained two recommendations with which the Department concurs. Attached find our detailed response to each recommendation. DHS previously submitted technical comments addressing several accuracy, contextual, and other issues under a separate cover for GAO's consideration.

Again, thank you for the opportunity to review and comment on this draft report. Please feel free to contact me if you have any questions. We look forward to working with you again in the future.

Sincerely,

JIM H CRUMPACKER

Digitally signed by JIM H CRUMPACKER
Date: 2021.07.22 07:28:56 -04'00'

JIM H. CRUMPACKER, CIA, CFE
Director
Departmental GAO-OIG Liaison Office

Attachment

2

Attachment: Management Response to Recommendations Contained in GAO-21-578

GAO recommended that the Deputy Associate Administrator of the Federal Insurance and Mitigation Administration [FIMA] of FEMA:

Recommendation 1: Determine what information is available – both internally and externally – related to the mandatory purchase requirement, and use it to develop strategies for increasing consumer participation in the flood insurance market.

Response: Concur. FIMA will review data already being collected and internally available and determine what information may be available from other sources upon which to develop a strategy for increasing consumer participation in the flood insurance market. Specifically, FIMA will enter into data sharing and other agreements with Federal Housing Finance Agency (FHFA) and the Federal National Mortgage Association, commonly known as Fannie Mae, by September 30, 2021, to share flood insurance data with each entity for research purposes. During fiscal year (FY) 2022, FEMA will review the results of research from FHFA, the Department of Housing and Urban Development (HUD), Fannie Mae, and academic or private sector entity research related to the mandatory purchase requirement. During FY 2023, FIMA will refine its marketing strategies to account for the results of its review. During FY 2024, FIMA will measure the effectiveness of the marketing strategies developed based on the previously completed research. Estimated Completion Date (ECD): December 31, 2024.

Recommendation 2: Evaluate and report to Congress with recommendations on how comprehensive and up-to-date flood risk information could be used to determine which properties should be subject to the mandatory purchase requirement.

Response: Concur. FIMA will evaluate various risk analysis data by March 31, 2022 and report on its efforts to make information available to potential policyholders and others regarding flood risks by December 31, 2022. However, it is important to note that comprehensive nation-wide information may not be available. In addition, FEMA's information will likely go beyond the identification of flood hazards and include past claims data or other data FEMA has to communicate risk other than solely relying on the identification of Special Flood Hazard Areas. FIMA will also recommend possible uses of flood risk information to inform mandatory purchase requirements, as appropriate. ECD: December 31, 2022.

3

Appendix V: Comments from the Farm Credit Administration

Memorandum

1501 Farm Credit Drive
McLean, Virginia 221025090
(703) 8834000

FCA
FARM CREDIT ADMINISTRATION

July 7, 2021

Ms. Alicia Puente Cackley
Director, Financial Markets and Community Investment
U.S. Government Accountability Office
441 G Street, NW
Washington, DC 20548

Dear Ms. Cackley:

The Farm Credit Administration (FCA) would like to thank the GAO for the opportunity to review and comment on the proposed report entitled National Flood Insurance Program: Congress Should Consider Updating the Mandatory Purchase Requirement (GAO-21-578).

On June 24, 2021, you provided FCA a draft for review and comment before the report is issued. You asked for written or oral comments by July 19, 2021. On July 2, FCA's Board Secretary sent an email to staff at GAO including Christine McGinty, asking for a small change to Footnote 45 on page 19 of the draft report, and Ms. McGinty agreed to make the change requested. We have no further comments and appreciate GAO staff's work on this report and professional interactions with FCA staff.

If you have any questions or comments, please let me know.

Sincerely yours,

Glen R. Smith
Board Chairman and Chief Executive Officer

Appendix VI: Comments from the National Credit Union Administration

National Credit Union Administration
Office of the Executive Director

July 2, 2021

Alicia Puente Cackley
Director, Financial Markets & Community Investment
U.S. Government Accountability Office
441 G Street NW
Washington, DC 20548

Dear Ms. Cackley,

We reviewed GAO's draft report (GAO 21-578) entitled *National Flood Insurance Program: Congress Should Consider Updating the Mandatory Purchase Requirement.* While there are no specific recommendations for the National Credit Union Administration, we acknowledge GAO's observations.

Thank you for the opportunity to review and comment on the draft report.

Sincerely,

LARRY FAZIO Digitally signed by LARRY FAZIO Date: 2021.07.02 16:32:50 -04'00'

Larry Fazio
Executive Director

1775 Duke Street – Alexandria, VA 22314-3428 – 703-518-1175

Appendix VII: GAO Contact and Staff Acknowledgments

GAO Contact

Alicia Puente Cackley at (202) 512-8678 or cackleya@gao.gov

Staff Acknowledgments

In addition to the contact named above, Nadine Garrick Raidbard (Assistant Director), Christine McGinty (Analyst in Charge), Joel Aldape, Jordan Anderson, Abigail Brown, Jennifer Bryant, Chelsea Carter, Gergana T. Danailova-Trainor, Eli Dile, David Dornisch, Chris Forys, Laura Gibbons, Lijia Guo, John McGrail, Brenda Mittelbuscher, Yann Panassie, Namita Bhatia Sabharwal, Jennifer Schwartz, Jena Sinkfield, John Vocino, and Pat Ward made key contributions to this report.

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