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Options for Making the National Flood Insurance Program More Affordable

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Options for Making the National Flood Insurance Program More Affordable

Concerns about the affordability of flood insurance premiums have come to the fore as FEMA introduces a new pricing system known as Risk Rating 2.0, which represents the biggest change to the way the NFIP calculates flood insurance premiums since its inception. Nationally, 77% of policyholders will see an increase in their premiums, with 23% of policyholders seeing a decrease under Risk Rating 2.0. These impending rate raises, which vary from \$120 to \$240 or more annually, have increased congressional interest in reducing the cost burden of flood insurance on policyholders.

As full risk-based premiums are phased in under Risk Rating 2.0, some policyholders could be faced with large price increases either because they are currently buying coverage at subsidized rates and/or because the new rating system indicates that they now have a higher risk. Such increases raise issues of equity, as well as affordability. The NFIP currently insures just under 5 million structures in the United States, and most of the remaining structures do not have insurance to protect them against flood risk. This large insurance gap may increase if policyholders drop their coverage because they feel that premiums are too expensive.

The introduction of a means-tested NFIP affordability program has been under consideration by Congress for years. However, FEMA does not currently have the authority to implement an affordability program, nor does the NFIP's current rate structure provide the funding required to support one. If an affordability program were to be funded from NFIP funds, this would require either raising flood insurance rates for NFIP policyholders or diverting resources from another existing use. Alternatively, an affordability program could be funded fully or partially by congressional appropriations. A central question in any reform of the NFIP is who should bear the costs of floodplain occupancy in the future: individual policyholders (the insured), federal taxpayers, uninsured flood victims, or some combination of these.

A means-tested affordability program could be implemented in a number of different ways, which may differ in how to measure when a premium might impose a cost burden on a policyholder. Means-tested affordability assistance could take a capped-premiums approach, an income-based approach, a housing burden-based approach, a combined income- and housing burden-based approach, or a community characteristics approach.

In addition, an affordability program is only one possible way of reducing the cost burden to policyholders. This report outlines a range of policy options Congress could consider to reduce the amount that NFIP policyholders pay, such as

- reducing the amount that policyholders pay through the introduction of a mean-tested affordability program;
- reducing the amount that individual policyholders pay by increasing participation in the NFIP, which could distribute program costs amongst a larger population than at present;
- increasing income to the NFIP, which could be used to reduce policyholders' contributions to the costs of the program;
- reducing the NFIP debt and thus the amount that policyholders pay in interest on the debt; or
- increasing mitigation activities, which may reduce flood damages and thus flood claims, which could reduce the amount that policyholders have to pay for claims.

The report also includes a table summarizing past legislative proposals related to NFIP affordability.

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Introduction

Many Members and stakeholders have expressed concern about the perceived affordability of flood insurance premiums, concerns which have come to the fore as the Federal Emergency Management Agency (FEMA) introduces a new pricing system known as Risk Rating 2.0. This new rating system, which is designed to move all National Flood Insurance Program (NFIP) policies to risk-based pricing, represents the biggest change to the way the NFIP calculates flood insurance premiums since its inception.¹ Nationally, according to FEMA, 77% of policyholders will see an increase in their premiums and 23% of policyholders will see a decrease under Risk Rating 2.0.² These impending rate raises, which vary from \$120 to \$240 or more annually, have increased congressional interest in reducing the cost burden of flood insurance on policyholders.

The introduction of a means-tested NFIP affordability program has been under consideration by Congress for years. For example, certain bills for reauthorization and reform of the NFIP in the 115th Congress,³ the 116th Congress,⁴ and the 117th Congress⁵ have contained provisions to establish an affordability program (see **Table 1**), as well as other provisions related to making NFIP premiums more affordable. The Build Back Better Act,⁶ as passed by the House on November 19, 2021, would appropriate funding to provide means-tested assistance to certain NFIP policyholders. However, a means-tested affordability program is only one possible way of reducing the cost burden to policyholders, and Congress could consider a range of other options that could reduce the amount that NFIP policyholders have to pay.

A central decision in any reform of the NFIP is who should bear the costs of floodplain occupancy in the future: individual policyholders (the insured), federal taxpayers, uninsured flood victims, or some combination of these. Increases in NFIP premiums under Risk Rating 2.0 may call further attention to the distribution of flood costs as an important policy concern.

Affordability and Solvency of the National Flood Insurance Program

The NFIP is the primary source of flood insurance coverage for residential properties in the United States, with just under 5 million policies in more than 22,000 communities in all 56 states and jurisdictions.⁷ The NFIP was created by the National Flood Insurance Act of 1968⁸ (NFIA). The last long-term reauthorization of the NFIP ended at the end of FY2017. Since then, 18 short-

¹ FEMA, *Risk Rating 2.0: Equity in Action*, <https://www.fema.gov/flood-insurance/risk-rating>.

² *Ibid.*

³ H.R. 2874, the 21st Century Flood Reform Act; S. 1313, the Flood Insurance Affordability and Sustainability Act of 2017; and companion bills S. 1368 and H.R. 3285, the Sustainable, Fair, and Efficient (SAFE) Flood Insurance Program Reauthorization Act of 2017.

⁴ H.R. 3167, the National Flood Insurance Program Reauthorization Act of 2019; and companion bills S. 2187 and H.R. 3872, the National Flood Insurance Program Reauthorization and Reform Act of 2019.

⁵ Companion bills S. 3128 and H.R. 5802, the National Flood Insurance Program Reauthorization and Reform Act of 2021.

⁶ H.R. 5376.

⁷ For more information on the NFIP, see CRS Report R44593, *Introduction to the National Flood Insurance Program (NFIP)*, by Diane P. Horn and Baird Webel.

⁸ Title XIII of P.L. 90-448, as amended, 42 U.S.C. §4001 et seq.

term NFIP reauthorizations have been enacted,⁹ and the NFIP is currently authorized until February 18, 2022.¹⁰

As a public insurance program, the objectives of the NFIP are different from the profit-maximization goals of private-sector companies. The NFIP has two main purposes: to provide access to primary flood insurance to properties with significant flood risk who might not otherwise be able to obtain insurance, and to reduce flood risk through the adoption of floodplain management standards. A longer-term objective of the NFIP is to reduce federal expenditure on disaster assistance after floods by substituting insurance payments for aid, with individual policyholders funding at least part of their recovery from flood damage.¹¹ For example, the U.S. Government Accountability Office (GAO) has argued that 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. In addition, 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 a Special Flood Hazard Area (SFHA)¹² and who do not purchase flood insurance also reduces federal disaster assistance expenditures.¹³ Flood is one of the few natural hazards for which at-risk residents pay some of the costs after a disaster.

A key design feature of the NFIP is that policyholders' premiums, fees, and surcharges are intended to pay for all flood-related damages and program expenses,¹⁴ with the option to borrow from the U.S. Treasury to pay claims for extreme events. From the inception of the NFIP, the program has been expected to set premiums that are simultaneously "risk-based" and "reasonable."¹⁵ GAO notes that FEMA is tasked with two competing goals: keeping flood insurance affordable and keeping the program solvent.¹⁶ The NFIP has been on the GAO high-risk list since 2006 because of concerns about its long-term fiscal solvency and related operational issues and, more recently, concerns about the NFIP's fiscal exposure to climate change.¹⁷

⁹ For additional information on NFIP reauthorizations since the end of FY2017, see CRS Insight IN10835, *What Happens If the National Flood Insurance Program (NFIP) Lapses?*, by Diane P. Horn.

¹⁰ P.L. 117-70.

¹¹ National Research Council of the National Academies, *Affordability of National Flood Insurance Program Premiums: Report 1* (hereinafter *NRC Affordability Report 1*), 2015, pp. 31-33, <http://www.nap.edu/catalog/21709/affordability-of-national-flood-insurance-program-premiums-report-1>.

¹² The Special Flood Hazard Area (SFHA) is defined by FEMA as an area with a 1% or greater risk of flooding every year.

¹³ U.S. Government Accountability Office (GAO), *National Flood Insurance Program: Congress Should Consider Updating the Mandatory Purchase Requirement*, GAO-21-587, July 2021, p. 35, (hereinafter *GAO Mandatory Purchase Requirement*), <https://www.gao.gov/assets/gao-21-578.pdf>.

¹⁴ Some types of properties receive subsidies, which are discussed in the section of this report on "Premium Subsidies and Cross-Subsidies."

¹⁵ See 82 Stat. 573 for text in original statute (§1302(c) of P.L. 90-448). This language remains in statute (see 42 U.S.C. §4001(c)).

¹⁶ GAO, *High-Risk Series: Dedicated Leadership Needed to Address Limited Progress in Most High-Risk Areas*, GAO-21-119SP, March 2, 2021, pp. 281-283, <https://www.gao.gov/products/gao-21-119sp>.

¹⁷ GAO, *Climate Change: Opportunities to Reduce Federal Fiscal Exposure, Testimony Before the Committee on the Budget, House of Representatives*, GAO-19-625T, June 11, 2019, p. 7, <https://www.gao.gov/products/gao-19-625t>.

In a 2017 report, the Congressional Budget Office (CBO) estimated that the NFIP had an expected one-year actuarial shortfall¹⁸ of \$0.7 billion.¹⁹ CBO also estimated that the cost of providing discounted rates to some NFIP policies was about \$0.3 billion more than the receipts from surcharges created to help cover the costs of those discounts.²⁰ This shortfall arises primarily because premium rates do not fully reflect the full risk of its insured policies. This applies both to the risk of individual properties and also the risk of catastrophic losses to the program as a whole, which FEMA has traditionally managed by relying on its authority to borrow from the U.S. Treasury.²¹

GAO has been reporting since 1983 that the NFIP's premium rates do not reflect the full risk of loss because of various legislative requirements, which exacerbates the program's fiscal exposure.²² GAO has also noted that while Congress has directed FEMA to provide subsidized premium rates for policyholders meeting certain requirements, it has not provided FEMA with funds to offset these subsidies and discounts, which has contributed to FEMA's need to borrow from the U.S. Treasury to pay NFIP claims.²³

Premium Subsidies and Cross-Subsidies

Except for certain subsidies, flood insurance rates in the NFIP are directed to be “based on consideration of the risk involved and accepted actuarial principles,”²⁴ meaning that the rate is reflective of the true flood risk to the property. FEMA determines full-risk rates²⁵ by estimating the probability of a given level of flooding, damage estimates based on that level of flooding, and accepted actuarial principles.²⁶ However, Congress has directed FEMA *not* to charge actuarial rates for certain categories of properties and to offer subsidies²⁷ or cross-subsidies to certain classes of properties in order to achieve the program's objectives so that owners of certain existing properties in flood zones²⁸ are able to afford flood insurance.

¹⁸ An actuarial shortfall is when income from premiums, fees, and surcharges is too low to cover the costs associated with paying claims on existing policies and writing and servicing those policies. Congressional Budget Office (CBO), *The National Flood Insurance Program: Financial Soundness and Affordability* (hereinafter *CBO Affordability*), Washington, DC, September 1, 2017, p. 7.

¹⁹ *CBO Affordability*, pp. 4-5. The actuarial shortfall estimated by CBO in this report excludes \$0.7 billion for mapping floodplains, mitigating flood risk, and interest payment on the NFIP's debt to the Treasury.

²⁰ *CBO Affordability*, p. 8.

²¹ GAO, *National Flood Insurance Program: Fiscal Exposure Persists Despite Property Acquisitions*, GAO-20-509, June 25, 2020, p. 32, <https://www.gao.gov/assets/710/707821.pdf>.

²² *Ibid.*, p. 29.

²³ GAO, *Flood Insurance: Comprehensive Reform Could Improve Solvency and Enhance Resilience* (hereinafter *GAO Solvency*), GAO-17-425, April 2017, p. 17, <https://www.gao.gov/products/GAO-17-425>.

²⁴ 42 U.S.C. §4014(a)(1).

²⁵ FEMA defines full-risk rates as those charged to a group of policies that generate premiums sufficient to pay the group's anticipated losses and expenses. See GAO, *National Flood Insurance Program: Continued Progress Needed to Fully Address Prior GAO Recommendations on Rate-Setting Methods*, GAO-16-59, March 2016, p. 8, <http://www.gao.gov/assets/680/675855.pdf>.

²⁶ For a brief explanation of accepted actuarial principles, see *NRC Affordability Report 1*, pp. 36-38.

²⁷ FEMA defines subsidized premium rates as those charged for a group of policies that results in aggregate premiums insufficient to pay for anticipated losses and expenses.

²⁸ Flood zones are geographic areas that FEMA has defined according to levels of flood risk and are depicted on a community's Flood Insurance Rate Map (FIRM). NFIP flood zones can be divided into three main categories: low- to moderate-risk areas (B, C, and X zones), high-risk areas (A zones), and high-risk coastal areas (V zones).

There are three main categories of properties which pay less than full risk-based rates:

- **Pre-FIRM:** Properties which were built or substantially improved²⁹ before December 31, 1974, or before FEMA published the first Flood Insurance Rate Map (FIRM) for their community, whichever was later.³⁰
- **Newly mapped:** Properties newly mapped into an SFHA on or after April 1, 2015, if the applicant gets flood insurance coverage within a year of the mapping.
- **Grandfathered:** Properties that were built in compliance with the FIRM which was in effect at the time of construction.³¹ FEMA allows owners of such properties to maintain their old flood insurance rate class if their property is remapped into a new flood rate class.³²

As of September 2018, approximately 13% of NFIP policies received a pre-FIRM subsidy, 4% of NFIP policies received the newly mapped subsidy, and about 9% of NFIP policies were grandfathered.³³

Fees and Surcharges

In addition to the building and contents premium, NFIP policyholders pay a number of fees and surcharges mandated by law.

- The **Federal Policy Fee (FPF)** was authorized by Congress in 1990 and helps pay for the administrative expenses of the program, including floodplain mapping and some of the insurance operations.³⁴ The amount of the Federal Policy Fee is set by FEMA and can increase or decrease year to year. Since October 2017, the FPF has been \$50 for Standard Flood Insurance Policies (SFIPs), \$25 for Preferred Risk Policies (PRPs),³⁵ and \$25 for contents-only

²⁹ 44 C.F.R. §59.1 defines substantial improvement as any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which exceeds 50% of the market value of the structure before the start of construction of the improvement.” For additional discussion of substantial improvement, see FEMA, *Substantial Improvement*, <https://www.fema.gov/node/405414>.

³⁰ 42 U.S.C. §4015(c).

³¹ A property can be grandfathered due to a change in its flood zone or a change in its Base Flood Elevation (BFE), which is defined as the water-surface elevation of the base flood, which is the 1%-annual-chance flood, commonly called the 100-year flood. The probability is 1% that rising water will reach BFE height in any given year.

³² An example of zone grandfathering would be a property that is initially mapped into a high-risk area (zone A) and is built to the proper building code and standards, and is later remapped into a higher-risk coastal area (zone V). If the policyholder has maintained continuous insurance coverage under the NFIP, the owner of this property can pay the flood insurance premium based on the prior lower-risk flood zone (zone A). Elevation grandfathering occurs when a new FIRM increases the BFE, but the property itself does not change flood zones.

³³ Email correspondence from FEMA Congressional Affairs staff, June 13, 2019. Note that FEMA has not collected updated information for rating categories since producing the September 2018 numbers.

³⁴ 42 U.S.C. §4014(a)(1)(B)(iii).

³⁵ A Preferred Risk Policy is a Standard Flood Insurance Policy that offers low-cost coverage to owners and tenants of eligible buildings located in moderate- and low-risk flood zones in NFIP communities. PRP policies will no longer be offered under Risk Rating 2.0. See National Flood Services, *Risk Rating 2.0: What Is Changing*, <https://nationalfloodservices.com/wp-content/uploads/2021/06/Risk-Rating-2.0-What-is-Changing.pdf>.

policies.³⁶ The FPF will be \$47 for all new NFIP policies and renewal policies written under Risk Rating 2.0.³⁷

- A **Reserve Fund Assessment** was authorized by Congress in the Biggert-Waters Flood Insurance Reform Act of 2012³⁸ to establish and maintain a reserve fund to cover future claim and debt expenses, especially those from catastrophic disasters.³⁹ FEMA charges every NFIP policyholder a reserve fund assessment of 18% of the premium.
- All NFIP policies are also assessed a **HFIAA Surcharge**⁴⁰ following the passage of the Homeowner Flood Insurance Affordability Act of 2014 (HFIAA).⁴¹ The amount of the surcharge is dependent on the type of property being insured. For primary residences, the charge is \$25; for all other properties, the charge is \$250.⁴²
- FEMA charges a **Severe Repetitive Loss (SRL) Premium** of 15% on all SRL properties.⁴³ Revenues from these surcharges are deposited into the Reserve Fund.
- If a community is on probation from the NFIP,⁴⁴ all policyholders in that community will be charged a **Probation Surcharge** of \$50 for a full one-year period, even if the community brings its program into compliance and is removed from probation.

Currently, the categories of properties which pay less than the full risk-based rate are determined by the date when the structure was built relative to the date of adoption of the FIRM, rather than the flood risk or the ability of the policyholder to pay. GAO has suggested in a number of reports that linking subsidies to ability to pay rather than the existing approach, by which subsidies are linked to properties without regard to financial circumstances, would make premium assistance more transparent and thus more open to oversight by Congress and the public.⁴⁵

³⁶ See FEMA, *Flood Insurance Manual, Appendix J: Rate Tables*, revised April 2021, p. J-16, https://www.fema.gov/sites/default/files/documents/fema_nfip-all-flood-insurance-manual-apr-2021.pdf.

³⁷ See FEMA, *Flood Insurance Manual: How to Write*, p. 3-51, revised October 1, 2021, https://www.fema.gov/sites/default/files/documents/fema_nfip-flood-insurance-manual-sections-1-6_oct2021.pdf.

³⁸ Title II of P.L. 112-141.

³⁹ The Reserve Fund assessment was authorized by Congress in BW-12 to establish and maintain a Reserve Fund to cover future claim and debt expenses, especially those from catastrophic disasters (§100212 of P.L. 112-141, 126 Stat. 992, as codified at 42 U.S.C. §4017a).

⁴⁰ Section 8(a) of P.L. 113-89, 128 Stat. 1023.

⁴¹ P.L. 112-141, §100236, 126 Stat. 957; as amended by P.L. 113-89, §16; 128 Stat. 1026.

⁴² For a description of how the fee is applied to different policy types, see FEMA, *The HFIAA Surcharge Fact Sheet*, April 2015, <https://www.fema.gov/media-library/assets/documents/105569>.

⁴³ FEMA, *April 1, 2021 and January 1, 2022 Program Changes*, W-20020, p. 22, <https://nfipservices.floodsmart.gov/sites/default/files/w-20020.pdf>.

⁴⁴ A community can be placed on probation by FEMA if it is found that it is failing to adequately enforce the floodplain management standards it has adopted. A community is given time to rectify FEMA's concerns regarding their implementation of the floodplain management standards. Ultimately, if the community does not correct its cited deficiencies after given time periods described in regulations, the community will be suspended from the NFIP by FEMA. For additional details on probation, see 44 C.F.R. §59.24(b) and (c).

⁴⁵ *GAO Solvency*, p. 27.

Legislative Reforms to Address NFIP Solvency and Affordability

Competing aspects of the NFIP, particularly the desire to keep flood insurance affordable while making the program fiscally solvent, have made it challenging to reform the program.⁴⁶ Different Administrations and Congresses have placed varied emphases and priorities on affordability or solvency for premium setting. As these priorities change, the balance between actuarial objectives (financial soundness and alignment of individual premiums with risk) and encouraging participation (by keeping premiums affordable and offering subsidies to certain classes of policyholders) has also changed.⁴⁷

The tension between solvency and affordability has been illustrated by legislative changes in the last decade. The Biggert-Waters Flood Insurance Reform Act of 2012 (hereinafter BW-12)⁴⁸ moved the NFIP in the direction of better aligning policyholders' premiums with their actual flood risks by removing or accelerating phaseouts of discounted rates.⁴⁹ A core principle of BW-12 was the eventual removal of subsidized policies.⁵⁰ Following the passage of BW-12, lawmakers received testimony and letters from constituents of multiple communities expressing concern that this would result in unreasonably high premiums that would create a financial burden on policyholders and could cause disruption to communities.

In response to these concerns, Congress passed the Homeowner Flood Insurance Affordability Act of 2014 (HFIAA),⁵¹ which slowed or reversed some changes introduced in BW-12.⁵² In particular, HFIAA slowed the rate of phaseout of subsidies for most primary residences, but retained the pace of the phaseout of the subsidy from BW-12 for business properties and secondary homes. In addition, HFIAA created a minimum and maximum increase in the amount for the phaseout of subsidies for all primary residences of 5%-18% annually. This permits individual property increases of up to 18%, but limits the rate class⁵³ increases to 15% per year.⁵⁴ In other words, the *average* annual premium rate increase for primary residences within a single risk classification rate may not be increased by more than 15% a year, while the *individual* premium rate increase for any individual policy may not be increased by more than 18% each year.⁵⁵

⁴⁶ GAO *Solvency*, p. 1.

⁴⁷ American Academy of Actuaries, *The National Flood Insurance Program: Challenges and Solutions*, Washington, DC, September 25, 2019, p. 3, <https://www.actuary.org/sites/default/files/2019-09/flood9.19.pdf>.

⁴⁸ Title II of P.L. 112-141.

⁴⁹ For more information on these changes, see Table 4 in CRS Report R44593, *Introduction to the National Flood Insurance Program (NFIP)*, by Diane P. Horn and Baird Webel.

⁵⁰ *NRC Affordability Report I*, p. 1.

⁵¹ See P.L. 112-141, §100236, 126 Stat. 957; as amended by P.L. 113-89, §16; 128 Stat. 1026.

⁵² *CBO Affordability*, p. 4.

⁵³ A single rate class (or risk classification) is a group of properties with the same flood risk classification; for example, pre-FIRM properties or properties with the newly mapped subsidy.

⁵⁴ The chargeable risk premium rate for any property may not be increased by more than 18% per year (except in certain circumstances, which are listed); see 42 U.S.C. §4015(e)(1). The chargeable risk premium may not be increased by an amount that would result in the average of such rate increases for properties within the risk classification exceeding 15% of the average of the risk premium rate for properties within the risk classification; see 42 U.S.C. §4015(e)(3).

⁵⁵ The percentage increases are based on the current premium (e.g., a 15% annual increase from the prior year premium), rather than the percentage difference between the current premium and the actuarial rate (i.e., a rate increase of 25% does not mean the pre-FIRM subsidy is eliminated in four years).

Other categories of properties are required to have their premium increased by 25% per year until they reach full risk-based rates, including (1) nonprimary residences; (2) nonresidential properties; (3) business properties; (4) properties with severe repetitive loss;⁵⁶ (5) properties with substantial cumulative damage;⁵⁷ and properties with substantial damage⁵⁸ or substantial improvement after July 6, 2012. Actuarially sound rates, or full risk-based rates,⁵⁹ would help communicate risks to homeowners and could help to ensure the program’s sustainability; however, for some policyholders this would mean a rate increase that could make premiums unaffordable or reduce their willingness to purchase flood insurance.⁶⁰ FEMA is moving toward charging full risk-based rates for all NFIP policies through the introduction of a new method for pricing NFIP policies, known as Risk Rating 2.0.

Risk Rating 2.0

Risk Rating 2.0 represents the biggest change to the way the NFIP calculates flood insurance premiums since its inception. Under Risk Rating 2.0, premiums for individual properties will be based on their individual flood risk.

Risk Rating 2.0 went into effect on October 1, 2021, for new NFIP policies only. Renewing policyholders may choose between the new and old rating methods until April 1, 2022, giving policyholders whose premiums decrease under Risk Rating 2.0 the option to move to the new lower premiums on renewal.⁶¹ After April 1, 2022, all policies will be priced using Risk Rating 2.0 methodology.⁶²

Under Risk Rating 2.0, premiums for an individual property will be based on that property’s specific flood risk, as opposed to being placed in a general risk category based on flood zones.⁶³ The premium will be calculated based on the specific features of the property, including structural variables such as the foundation type of the structure, the height of the lowest floor of the structure relative to base flood elevation, and the replacement cost value (RCV)⁶⁴ of the structure.

⁵⁶ Severe repetitive loss properties are those that have incurred four or more claim payments exceeding \$5,000 each, with a cumulative amount of such payments over \$20,000; or at least two claims with a cumulative total exceeding the value of the property. See 42 U.S.C. §4014(h) and 44 C.F.R. §79.2(h).

⁵⁷ A property with substantial cumulative damage is any property that has incurred flood-related damage in which the cumulative amounts of payments under the NFIP equaled or exceeded the fair market value of such property. See 42 U.S.C. §4014(a)(2)(C).

⁵⁸ 44 C.F.R. §59.1 defines “substantial damage” as damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50% of the market value of the structure before the damage occurred. For additional discussion of substantial damage, see FEMA Fact Sheet, *NFIP “Substantial Damage”—What Does It Mean?* at <https://www.fema.gov/press-release/20210318/fact-sheet-nfip-substantial-damage-what-does-it-mean-0>.

⁵⁹ FEMA defines full risk-based rates expenses (rates intended to reflect the actual rate of flooding) as those charged to a group of policies that generate premiums sufficient to pay the group’s anticipated losses and expenses.

⁶⁰ *CBO Affordability*, p. 21 and p. 4.

⁶¹ Email from FEMA Congressional Affairs staff, October 7, 2021.

⁶² FEMA, *Risk Rating 2.0: Equity in Action*, <https://www.fema.gov/flood-insurance/risk-rating>.

⁶³ For a more detailed explanation of flood zones, see CRS Report R44593, *Introduction to the National Flood Insurance Program (NFIP)*, by Diane P. Horn and Baird Webel.

⁶⁴ Before Risk Rating 2.0, the premium for a property is based on the amount of insurance purchased for a structure rather than the replacement cost of the structure. In particular, structures whose value are above \$250,000 pay less than they would if their rate was based on the RCV, because their rate is based on an average structure value that is much less than their actual structure value. For additional discussion of RCV, see CRS Report R45999, *National Flood Insurance Program: The Current Rating Structure and Risk Rating 2.0*, by Diane P. Horn.

Structures with higher replacement costs than current local or national averages should pay more for their NFIP coverage than structures that are below the average RCV, which should pay less.⁶⁵

Risk Rating 2.0 will also consider geographical variables such as the distance to water, the type and size of nearest bodies of water, flood frequency, and the elevation of the property relative to the flooding source. Risk Rating 2.0 also will incorporate a broader range of flood frequencies and sources than the current system; in particular, pluvial flooding (flooding due to heavy rainfall).⁶⁶

Risk Rating 2.0 will continue the overall policy of phasing out NFIP subsidies that began with BW-12 and continued with HFIAA, which slowed the rate at which subsidies were phased out for primary residences. If policyholders are currently paying less than the full risk-based rate for their property, their premium will increase over time until they reach the actuarial rate for their property. However, limitations on annual premium increases are set in statute,⁶⁷ and FEMA cannot increase rates annually beyond these caps. Although Risk Rating 2.0 will not be allowed to increase premiums for primary residences more than 18% annually, this will still represent a larger increase than policyholders have seen in years. Since HFIAA was passed in 2014, rate increases for primary residences have increased between 6% and 11% per year.⁶⁸

Nationally, an estimated 77% of policyholders will see an increase in their premiums in the first year of Risk Rating 2.0, with 23% of policyholders seeing a decrease.⁶⁹ The impending rate raises will vary from \$120 to \$240 or more annually. According to FEMA, 75% of primary residences would see an increase greater than 18% under Risk Rating 2.0 if the statutory limit did not exist. FEMA estimates that 50% of policies will be at their full risk rate after five years and after 10 years, 90% of policies will be at their full risk rate.⁷⁰

As full risk-based premiums are phased in under Risk Rating 2.0, some policyholders could be faced with large price increases either because they are currently buying coverage at subsidized rates, or because the new rating system indicates that they now have a higher risk, or both.

Affordability of NFIP Premiums

The introduction of Risk Rating 2.0 has renewed concerns that full risk-based premiums could be unaffordable for some households and could lead property owners to either purchase lower amounts of coverage or choose not to purchase flood insurance at all. It has been suggested that some property owners might not be able to afford to remain in their homes if flood insurance premiums were too high.⁷¹ Such increases raise issues of equity, as well as affordability. Premium increases under Risk Rating 2.0 may have the greatest effect on low- and moderate-income

⁶⁵ FEMA, *Risk Rating 2.0: Equity In Action*, <https://www.fema.gov/flood-insurance/risk-rating>.

⁶⁶ For additional information about Risk Rating 2.0, see CRS Report R45999, *National Flood Insurance Program: The Current Rating Structure and Risk Rating 2.0*, by Diane P. Horn; and CRS Insight IN11777, *National Flood Insurance Program Risk Rating 2.0: Frequently Asked Questions*, by Diane P. Horn.

⁶⁷ 42 U.S.C. §4015(e).

⁶⁸ See Table 1 in CRS Insight IN11777, *National Flood Insurance Program Risk Rating 2.0: Frequently Asked Questions*, by Diane P. Horn.

⁶⁹ FEMA, *Risk Rating 2.0—National Rate Analysis*, https://www.fema.gov/sites/default/files/documents/fema_risk-rating-2.0-national-rate-analysis.pdf.

⁷⁰ Email from FEMA Congressional Affairs staff, April 16, 2021.

⁷¹ GAO, *Flood Insurance: More Information Needed on Subsidized Properties*, GAO-13-607, July 3, 2013, p. 36, <https://www.gao.gov/products/gao-13-607>.

policyholders and communities,⁷² as well as other potential impacts. For example, if homeowners and renters drop their insurance because of affordability issues, it may affect their ability to receive FEMA disaster assistance, for which they are required to obtain and maintain flood insurance. In addition, there may be locations where premium increases have adverse effects on a community as a whole if premiums increase for a large number of residents. For example, higher flood insurance rates could affect property values and the ability of property owners to sell their properties if potential buyers decide not to purchase a home in a high-risk area after determining the cost of flood insurance for the property.⁷³

Higher premiums could potentially prevent achievement of the long-standing program objective of increasing the number of properties covered by flood insurance.⁷⁴ If NFIP policyholders were to cancel their policies, the federal government could face increased costs in the form of FEMA disaster assistance to these households.⁷⁵

Options to Reduce the Cost Burden on NFIP Policyholders

An ongoing area of congressional interest is how to reduce the cost burden of an individual NFIP policy.⁷⁶ Congress may consider several broad policy options which could reduce the cost of flood insurance to all policyholders through a variety of reforms to the structure of the NFIP. GAO noted that these options are not mutually exclusive and could potentially be combined, depending on the policy priorities of Congress; however, the options all involve trade-offs and implementing any of them would likely be challenging.⁷⁷

Congress could consider actions that would

- reduce the amount that policyholders pay through the introduction of a mean-tested affordability program;
- reduce the amount that individual policyholders pay by increasing participation in the NFIP, which could distribute program costs among a larger insured population;
- increase income to the NFIP, which could be used to reduce policyholders' contributions to the costs of the program;
- reduce the NFIP debt and thus the amount that policyholders pay in interest on the debt; or
- increase mitigation activities, which may reduce flood damages and thus flood claims, which could reduce the amount that policyholders have to pay for claims.

⁷² See, for example, U.S. Congress, House Committee on Homeland Security, *Hearing on Ensuring Equity in Disaster Preparedness, Response, and Recovery*, Hearing Testimony of Chauncia Willis, Chief Executive Officer, Institute for Diversity and Inclusion in Emergency Management, 117th Cong., 1st sess., October 27, 2021, pp. 2-6, <https://homeland.house.gov/imo/media/doc/2021-10-27-HRG-Testimony-Willis.pdf>.

⁷³ GAO, *Overview of GAO's Past Work on the National Flood Insurance Program*, GAO-14-297R, April 9, 2014, p. 20, <https://www.gao.gov/products/GAO-14-297R>.

⁷⁴ *NRC Affordability Report 1*, p. 2.

⁷⁵ *NRC Affordability Report 1*, p. 64.

⁷⁶ *GAO Solvency*, p. 24.

⁷⁷ *GAO Solvency*, p. 10.

This report identifies potential options in the above categories that could lead to reductions in the amount that NFIP policyholders have to pay.

Introduce a Means-Tested Affordability Program

Assistance through an affordability program could offset part or all of the cost of insurance through a number of approaches, which differ in the ways to measure when a premium might impose a cost burden on a policyholder. There are no objective definitions of affordability for flood insurance, nor are there objective thresholds to define “affordable” premiums either for an individual property owner or renter, or for any group of property owners or renters.⁷⁸ Although a lower insurance premium clearly is more affordable than a higher one, there is no objective threshold that separates affordable premiums from unaffordable premiums. The threshold for defining when an insurance program creates a cost burden requires making a policy judgment.⁷⁹ For example, GAO estimated that 47%-74% of policyholders could be eligible for subsidies if income eligibility was set at 80% or 140% of area median income (AMI), respectively.⁸⁰

Policymakers will need to select which measure(s) will be used to target assistance to make flood insurance more affordable. They will also need to consider who will receive such assistance (e.g., only homeowners or also renters, only existing policyholders or also households that purchase flood insurance after the affordability program has begun). For example, if households without current NFIP insurance, who may have been deterred from buying insurance because of the cost, were not able to participate in an affordability program, it might exclude eligible low-income households. This could potentially raise questions of equity.

GAO has suggested in a number of reports that an affordability program that addresses the goals of encouraging consumer participation and promoting resilience could provide means-tested assistance through appropriations rather than through discounted premiums, and prioritize mitigation to reduce risk.⁸¹ Such programs may differ in how to measure when a premium might impose a cost burden on a policyholder. Means-tested affordability assistance could be in the form of a capped-premiums approach, an income-based approach, a housing-burden-based approach, a combined income- and housing burden-based approach, and a community characteristics approach.

Options for a Means-Tested Affordability Program

- 1. Target premium discounts or subsidies to qualifying households.** NFIP subsidies are currently tied to a property. Implementing a means-tested approach could decouple the subsidy from the property and instead attach it to the policyholder or group of policyholders on the basis of financial need.⁸² This could take the form of discounted rates or vouchers, where policyholders would be charged a full-risk premium but would receive a subsidy to cover the difference between what they are deemed able to pay and the full-risk rate premium. Policymakers might also choose to target assistance to households that are flood insurance cost-burdened and are required to purchase flood insurance. However,

⁷⁸ *NRC Affordability Report 1*, p. 80.

⁷⁹ *NRC Affordability Report 1*, pp. 79-80.

⁸⁰ *GAO Affordability Assistance*, pp. 22-23.

⁸¹ *GAO Solvency*, p. 27.

⁸² *GAO Affordability Assistance*, p. 11.

policyholders will also need to decide which properties are considered when determining a household's eligibility; for example, assistance could be limited to primary residences.⁸³

a. **Capped premiums approach.** Under a capped premium approach, a flood insurance premium is defined as unaffordable if it is greater than a specified percentage of the coverage of the policy.⁸⁴ For example, HFIAA directed FEMA to strive to minimize the number of policies with annual premiums that exceed 1% of the total coverage provided by the policy.⁸⁵ A capped premium approach does not consider policyholders' resources and other expenses, and this option could provide subsidies to households which may not have financial need.⁸⁶

b. **Income-based approach.** An income-based approach to affordability assumes that flood insurance imposes a cost burden and thus is unaffordable for any household whose income is below a specified threshold. That standard could be based on median income for the area or federal poverty guidelines, or other criteria. For example, to be eligible for certain federal housing programs, individual households must meet specific income limits expressed as a percentage of the area median income (AMI).⁸⁷ An NFIP affordability program based on individuals' or households' income could use similar measures.⁸⁸ Means testing would add administrative complexity to the NFIP, but could be designed similarly to existing means-tested programs offered by the federal government.⁸⁹ Under an income-based approach, lower-income households would be responsible for paying for a portion of the premium, with FEMA covering the remainder of the premium amount. As household income levels rise, the portion of the premium that would be covered by FEMA would decrease.⁹⁰ FEMA noted that such a program would be relatively straightforward to implement; however, it could also provide benefits to households for which flood insurance is not unaffordable (e.g., households with low incomes but substantial assets).⁹¹

c. **Housing burden-based approach.** A housing cost approach considers not only a household's income but also housing costs, and assesses the ratio of housing costs to income when the NFIP premium is added to other housing costs. Under this approach, policymakers would have to select (or delegate selection of) a threshold, usually expressed as a percentage, at which the ratio of housing costs to income is judged to become unaffordable. One way to identify housing burden is through the use of the PITI ratio: the ratio of mortgage principal and interest (PI), property taxes (T), and insurance (I), including flood insurance, to household income. A comparable measure of housing

⁸³ Different options for an NFIP affordability program are discussed in more detail in "Introduce a Means-Tested Affordability Program."

⁸⁴ *NRC Affordability Report 1*, p. 81.

⁸⁵ 42 U.S.C. §4015(j).

⁸⁶ *GAO Affordability Assistance*, p. 18.

⁸⁷ See Department of Housing and Urban Development, *Methodology for Calculating FY2020 Medians*, <https://www.huduser.gov/portal/datasets/il/il20/Medians-Methodology-FY20r.pdf>.

⁸⁸ *GAO Affordability Assistance*, p. 12.

⁸⁹ *GAO Affordability Assistance*, pp. 11-15.

⁹⁰ FEMA, *An Affordability Framework for the National Flood Insurance Program*, 2018 (hereinafter *FEMA Affordability Framework*), p. 6, <https://www.fema.gov/media-library/assets/documents/163171>.

⁹¹ *FEMA Affordability Framework*, p. 26.

burden for renters is the ratio of rent plus insurance to household income.⁹² Previous work has shown that the PITI ratio is highly correlated with household income, so a program basing eligibility on the PITI ratio may effectively target lower-income households.⁹³

FEMA suggested in its Affordability Framework that it would consider flood insurance unaffordable if flood insurance causes the ratio of PITI to income to exceed 0.3 to 0.4, cutoffs that are taken from both HUD and private mortgage industry standards.⁹⁴ Based on an analysis of linked NFIP policy data and household income and Census Bureau American Community Survey (ACS) housing cost data,⁹⁵ FEMA found that the PITI ratio exceeded 0.4 for approximately 12% of homeowners with flood insurance policies in SFHAs.⁹⁶ FEMA's analysis found that the PITI ratio for renters (defined as gross rent over income) is higher than those for homeowners, with 33% of renters inside SFHAs and 27% of renters outside SFHAs with a PITI ratio over 0.47, and concluded that by this definition, flood insurance is unaffordable for a substantial percentage of renters.⁹⁷

The housing cost burden approach might create some potentially perverse incentives by providing larger benefits for households potentially overextended on housing costs, and smaller benefits for households who were more frugal in making their choices. This approach may also miss some households that may be of concern to policymakers and could potentially steer benefits away from some low-income policyholders. For example, a household without a mortgage may have a low income but also a low PITI ratio and thus would be ineligible for assistance under this approach. In particular, it may not provide benefits to retirees who have paid off their mortgages or low-income households that have inherited a property mortgage-free. In general, households with access to credit would be more likely to qualify for assistance through the mortgage component of the PITI-ratio.

Another concern with a PITI-based approach is that households in regions with high costs of living (and mortgage payments) might be more likely to benefit from the program than households in regions with lower costs of living.⁹⁸ In addition, households would need to provide data on income and housing expenses, which may cause administrative burdens for both the policyholders to provide and FEMA to verify the data.

d. Income and housing burden-based approach. The FEMA affordability framework also considered an approach where benefits are targeted at households that are both income- and housing-burdened (which it noted is similar to HUD's Section 8 rental housing assistance program). It used the thresholds of 120% of AMI and housing burdens above 40% of income.⁹⁹

⁹² FEMA Affordability Framework, p. 15.

⁹³ Lloyd Dixon, Noreen Clancy, Benjamin M. Miller, et al., *The Cost and Affordability of Flood Insurance in New York City: Economic Impacts of Rising Premiums and Policy Options for One- to Four- Family Homes*, Rand Corporation, RAND RR1776, Santa Monica, CA, April 2017, pp. 25-26, https://www.rand.org/pubs/research_reports/RR1776.html.

⁹⁴ FEMA Affordability Framework, p. 15.

⁹⁵ United States Census Bureau, *American Community Survey (ACS)*, <https://www.census.gov/programs-surveys/acs>.

⁹⁶ FEMA Affordability Framework, p. 6.

⁹⁷ FEMA Affordability Framework, pp. 16-18.

⁹⁸ FEMA Affordability Framework, p. 31.

⁹⁹ FEMA Affordability Framework, p. 29.

2. **Target premium discounts or subsidies based on community characteristics.** Rather than determine eligibility for affordability assistance based on characteristics of individual households, community characteristics could be considered as eligibility criteria.¹⁰⁰ For example, policyholders could make all households in a community eligible for assistance if a specified percentage of them would likely be eligible on the basis of their individual characteristics. Alternatively, all homeowners in a community could be considered eligible for assistance if the community's poverty rate is sufficiently high or the median income is sufficiently low.¹⁰¹ This could reduce administrative costs by removing the need to establish eligibility of every household. Another potential eligibility criterion could be the engagement of state and local governments in certain mitigation activities.¹⁰² However, because this option does not consider financial need, some policyholders who do not face an affordability issue with their flood insurance premiums may receive assistance, while policyholders who have affordability issues but do not live in an eligible community would not receive assistance.¹⁰³

3. **Require recipients of affordability assistance to invest in FEMA-approved cost-effective mitigation measures.** For example, property owners could receive grants or loans to help mitigate their flood risk and be charged a premium rate that reflects their lower risk. Another option could be to offer a multiyear loan that could cover both mitigation measures and the annual loan cost.¹⁰⁴ Vouchers could also be used to help policyholders cover the cost of repaying mitigation loans.¹⁰⁵ This approach could potentially be targeted at properties that are most costly to the NFIP, such as repetitive loss¹⁰⁶ (RL) and severe repetitive loss (SRL) properties.

The Build Back Better Act,¹⁰⁷ as passed by the House on November 19, 2021, would appropriate \$600 million, to remain available until the end of FY2026, for a means-tested affordability program to provide assistance in the form of graduated discounts for insurance costs for covered properties. NFIP policyholders with a household income not more than 120% of AMI would be eligible to participate in the program. Covered properties are defined as primary residences for structures with one to four families, and primary residences of renters. The affordability assistance would provide a discount on all premiums, fees, and surcharges.

¹⁰⁰ For example, this could potentially make use of FEMA's National Risk Index, which combines a community's hazard risk, social vulnerability, and resilience to calculate a relative risk assessment. See FEMA, *National Risk Index for Natural Hazards* (NRI), <https://www.fema.gov/flood-maps/products-tools/national-risk-index>.

¹⁰¹ *NRC Affordability Report 1*, p. 95.

¹⁰² *NRC Affordability Report 1*, p. 90.

¹⁰³ *GAO Affordability Assistance*, p. 17.

¹⁰⁴ Howard Kunreuther, "Improving the National Flood Insurance Program," *Behavioural Public Policy*, July 9, 2018, pp. 1-15.

¹⁰⁵ *GAO Affordability Assistance*, p. 46.

¹⁰⁶ The statutory definition of a repetitive loss structure is a structure covered by a contract for flood insurance that (a) has incurred flood-related damage on two occasions, in which the cost of repair, on the average, equaled or exceeded 25% of the value of the structure at the time of each such flood event; and (b) at the time of the second incidence of flood-related damage, the contract for flood insurance contains increased cost of compliance coverage. See 42 U.S.C. §4121(a)(7).

¹⁰⁷ H.R. 5376, as passed by the House on November 19, 2021.

Reduce the Amount That Policyholders Pay to the NFIP

A means-tested affordability program is only one possible way of reducing the cost burden to policyholders, and Congress could consider other changes to the NFIP to reduce the amount that policyholders pay.

Options to Reduce the Amount That Policyholders Pay to the NFIP

4. **Reduce cross-subsidies.** Cross-subsidies are being phased out under Risk Rating 2.0. This should reduce premiums for policyholders who are paying more to cross-subsidize other policyholders. However, premiums for properties that are currently subsidized are expected to increase as cross-subsidies are reduced. Alternatively, the income to the NFIP will be reduced if the costs that are currently cross-subsidized are not passed on to other policyholders.
5. **Reduce or eliminate fees or surcharges paid by NFIP policyholders.** This would reduce flood insurance premiums but would also reduce income to the NFIP. Reduced fees and surcharges might encourage additional participation in the NFIP. However, FEMA does not have authority to eliminate all of these; elimination of some fees and surcharges¹⁰⁸ would require action by Congress.
6. **Reduce premiums or increase subsidies.** This could reduce the amount that policyholders pay to the NFIP but would also reduce income to the program unless Congress were to provide additional funding for the NFIP. In addition, increasing subsidies would run counter to the principles established by FEMA for Risk Rating 2.0.
7. **Eliminate the mandatory purchase requirement.** If the purchase of flood insurance were voluntary, those who could not afford NFIP premiums would not have to incur the expense. However, it is likely that take-up rates for NFIP policies would drop substantially if homeowners were not required to purchase flood insurance.¹⁰⁹ As a result, households would need to rely on their own financial resources or federal assistance for post-flood recovery. In addition, the presence of uninsured properties may reduce the resilience of a community more generally after a flood and may necessitate additional disaster assistance from the federal government.
8. **Allow higher deductibles on NFIP policies.** The maximum deductible is currently \$1,250 if the building coverage amount exceeds \$100,000. Otherwise, the deductible is \$1,000.¹¹⁰ Congress could increase the maximum deductible or FEMA could encourage policyholders to choose a larger deductible.¹¹¹ According to FEMA, increasing the deductible to the maximum amount could reduce NFIP premiums by 40%.¹¹² However, although higher deductibles could decrease premium payments, in the event of a flood they might impose hardships on people. This could be a particular problem for low-income households who must pay for damage below the deductible amount, and could lead to an increase in demand for federal disaster assistance.

¹⁰⁸ For example, the Federal Policy Fee, Reserve Fund Assessment, and the HFIAA surcharge.

¹⁰⁹ *NRC Affordability Report 1*, p. 113.

¹¹⁰ FEMA, *Flood Insurance Manual*, 3. *How to Write*, p. 3-41, revised April 2021, https://www.fema.gov/sites/default/files/documents/fema_nfip-all-flood-insurance-manual-apr-2021.pdf.

¹¹¹ *CBO Affordability*, p. 26.

¹¹² FEMA, *Help Clients Pay Less for Flood Insurance*, <https://agents.floodsmart.gov/retention/costs>.

9. **Cap the rate at which NFIP premiums could increase.** The current maximum rate of allowable increase was set in HFIAA, with maximum rate increases for primary residences limited to 5%-18% per year. Premiums on other categories of properties can be increased at 25% annually.¹¹³ Congress could set a lower cap on the rate at which premiums can be increased.¹¹⁴

10. **Cap NFIP premiums.** This could establish a ceiling beyond which premiums could not increase, and thus could help lower premiums of policyholders whose premiums are increasing.¹¹⁵ However, this approach does not consider policyholders' income, assets, or other expenses and therefore does not necessarily take financial need into account.

11. **Allow communities to pay all or part of flood insurance premiums for their residents.** Community payment of individual policyholders' flood insurance premiums could shift the issue of affordability to the local level and allow each community to address it in the way that it sees fit. For example, a community could cross-subsidize the assessment of premiums, or use other community funds to offset high premiums for low-income or moderate-income households. A community could also recover all or part of the costs through measures such as special assessments levied on covered properties.

Increase NFIP Participation

A long-standing objective of the NFIP has been to increase purchases of flood insurance policies, and this objective was one motivation for keeping NFIP premiums affordable when the program was established.¹¹⁶ In designing the NFIP to help address floodplain management objectives, Congress has generally emphasized the need for high policy take-up rates.¹¹⁷ Adding new policyholders, however, would not improve the finances of the NFIP unless the new policies increase receipts more than they increase expected claims and other expenses.¹¹⁸ GAO has noted that increased consumer participation could increase the size and scope of the NFIP and potentially increase federal fiscal exposure. However, it suggested, this could be reduced by implementing full-risk rates and balanced by an increasing number of lower-risk properties.¹¹⁹

The Mandatory Purchase Requirement

Over time, the desire to increase take-up rates has led to a number of program changes, including the introduction of the mandatory purchase requirement (MPR). In a community that participates or has participated in the NFIP, owners of properties in the mapped SFHA are required to purchase flood insurance as a condition of receiving a federally backed mortgage. Under the MPR, federally backed or regulated lenders require borrowers to purchase and maintain a flood insurance policy when they provide a mortgage to properties in the SFHA. The MPR is enforced

¹¹³ See the section of this report on "Risk Rating 2.0" for further information on the rates at which premiums can be increased.

¹¹⁴ For example, S. 3128 and H.R. 5802 in the 117th Congress would cap annual premium increases at 9%.

¹¹⁵ In the first year of Risk Rating 2.0, FEMA has capped the annual premium for a single-family primary residence at \$12,125. Some of these properties have previously been paying as much as \$45,925. This represents the first time that a dollar cap has been applied to the NFIP. FEMA, *Briefing on Risk Rating 2.0 for CRS*, March 29, 2021.

¹¹⁶ See 82 Stat. 577 for text in the original statute (Section 1308(b)(2) of P.L. 90-448). This language remains in statute; see 42 U.S.C. §4015(b)(2).

¹¹⁷ *NRC Affordability Report 1*, p. 31.

¹¹⁸ *CBO Affordability*, p. 24.

¹¹⁹ *GAO Solvency*, p. 33.

by lenders rather than FEMA, and FEMA does not have authority to enforce lender compliance with the MPR.¹²⁰ At least 10 federal entities oversee lenders' compliance.¹²¹

Compliance with the MPR directly affects the number of properties that have flood insurance, although the full extent of noncompliance with the MPR is not known.¹²² However, NFIP take-up rates for flood insurance are generally low, even in areas subject to the MPR,¹²³ and policies may not be maintained after purchase. For example, GAO found that about 28% of properties that were purchased in 2014 no longer had an NFIP policy by 2019.¹²⁴

There is a large flood insurance gap in the United States, and many people that are exposed to flood risk are not covered by flood insurance. Currently the NFIP insures about 4.985 million structures in the United States,¹²⁵ and most of the remaining structures have no insurance to protect them from flood risk.¹²⁶ NFIP residential policies are nearly evenly divided between areas inside and outside the SFHA, but the majority of nonresidential policies are inside the SFHA. This is relevant to flood insurance affordability because flood insurance premiums are generally higher in SHFAs.¹²⁷ Expanding the MPR could increase premiums and create affordability concerns that could warrant having an affordability assistance program.¹²⁸

In addition to the risk of uninsured losses to individual households and businesses, the NFIP could achieve greater financial stability with a wider policy base; in particular, through finding ways to increase coverage outside the SFHA. According to the American Academy of Actuaries, increasing the number of properties covered for flood, particularly in lower-risk areas, will not only protect consumers, lending institutions, and local communities, but will also improve the financial stability of the NFIP by achieving a better spread of risk.¹²⁹

Options to Increase NFIP Participation

12. Ensure full compliance with the mandatory purchase requirement. This option would require lenders to ensure that all mortgagees subject to the MPR purchase and maintain flood insurance. GAO's view is that measuring compliance with the MPR would require property-specific data on mortgage, flood zone determinations, and flood insurance policies compiled at loan origination and at various points during the life of the loan. GAO noted that this would entail establishing reporting requirements on lenders to provide relevant mortgage data, determining an appropriate authority to receive and compare these data, and determining the costs and benefits of obtaining these data.¹³⁰ In a recent report, GAO

¹²⁰ GAO, *GAO Mandatory Purchase Requirement*, p. 9.

¹²¹ *GAO Mandatory Purchase Requirement*, p. 4 and p. 10.

¹²² *GAO Mandatory Purchase Requirement*, p. 35 and p. 45.

¹²³ Carolyn Kousky, Howard Kunreuther, Michael LaCour-Little, et al., "Flood Risk and the U.S. Housing Market," *Journal of Housing Research*, vol. 29, no. S.1 (November 30, 2020), pp. S3-S24.

¹²⁴ *GAO Mandatory Purchase Requirement*, p. 32.

¹²⁵ FEMA, *Watermark, FY2021, Third Quarter*, https://www.fema.gov/sites/default/files/documents/fema_fima-watermark-FY2021-Q3.pdf.

¹²⁶ American Academy of Actuaries, *The National Flood Insurance Program: Challenges and Solutions*, Washington, DC, September 25, 2019, p. 4, <https://www.actuary.org/sites/default/files/2019-09/flood9.19.pdf>.

¹²⁷ *FEMA Affordability Framework*, p. 8.

¹²⁸ *FEMA Affordability Framework*, p. 43.

¹²⁹ American Academy of Actuaries, *The National Flood Insurance Program: Challenges and Solutions*, Washington, DC, September 25, 2019, p. 82, <https://www.actuary.org/sites/default/files/2019-09/flood9.19.pdf>.

¹³⁰ GAO, *Flood Insurance: Extent of Noncompliance with Purchase Requirements Is Unknown*, GAO-02-39-6, June

described challenges to understanding the full extent of noncompliance with the MPR.¹³¹ Given the absence of a full understanding of compliance with the MPR, GAO suggested that there were a number of actions that FEMA could take, despite FEMA's limited statutory role related to the MPR, to examine trends and patterns related to consumer participation and potential noncompliance. Policy and claims data could be used to develop strategies for addressing noncompliance. For example, GAO recommended that FEMA could review its own data to identify patterns and trends and to develop policies for addressing noncompliance. In particular, an analysis of NFIP policy data could provide information on how long NFIP policies are maintained over time and when flood insurance policies are dropped. 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 MPR, such as new escrow requirements, in ensuring policies are maintained for the life of mortgage loans.¹³²

13. Require policyholders subject to the MPR to opt out rather than opt in. Research in behavioral economics has found that, in many circumstances, individuals tend to stay with default options. It has been suggested that coupling flood insurance to homeowners' insurance as a default, while still giving individuals the option to decline coverage (opt out) if not required by the lender, might lead more people to purchase flood insurance.¹³³

14. Offer multiyear flood insurance policies. The tendency to maintain the status quo is thought to increase the likelihood that insured individuals will maintain a multiyear policy for the length of the contract, whereas they may decide not to renew an annual policy after it expires.¹³⁴

15. Expand the MPR to all structures with federally backed mortgages in NFIP communities, not just those in the SFHA. Both GAO and FEMA have suggested that the MPR could potentially be expanded to more (or all) mortgage loans made by federally regulated lending institutions for properties in communities participating in the NFIP. This would increase the consumer participation rate in the NFIP and potentially balance the NFIP portfolio with an increased number of lower-risk properties.¹³⁵ According to GAO, some private insurers have indicated that such a federal mandate could help achieve the level of consumer participation necessary to make the private sector comfortable with providing flood insurance coverage by increasing the number of policyholders, which would allow private insurers to diversify and manage the risk of their flood insurance portfolio and address concerns about adverse selection.¹³⁶ This would require congressional action to change the provision in the National Flood Insurance Act of 1968 that links the purchase of flood

21, 2002, p. 4, <https://www.gao.gov/products/GAO-02-396>.

¹³¹ GAO *Mandatory Purchase Requirement*, p. 29.

¹³² GAO *Mandatory Purchase Requirement*, pp. 31-32.

¹³³ Carolyn Kousky, Brett Lingle, Howard Kunreuther, et al., *Moving the Needle on Closing the Flood Insurance Gap*, Wharton Risk Management and Decision Processes Center, Issue Brief, Philadelphia, PA, February 13, 2019, p. 2, <https://riskcenter.wharton.upenn.edu/wp-content/uploads/2019/02/Moving-the-Needle-on-Closing-the-Flood-Insurance-Gap.pdf>.

¹³⁴ NRC *Affordability Report 1*, p. 62.

¹³⁵ GAO *Solvency*, p. 29 and p. 33.

¹³⁶ GAO, *Flood Insurance: Strategies for Increasing Private Sector Involvement*, GAO-47-127, January 2014, p. 23, <https://www.gao.gov/products/GAO-14-127>.

insurance to financial assistance.¹³⁷ Congressional action would not be needed to change the definition of an “area having special flood hazards,” which is only defined in regulation¹³⁸ rather than in statute. This option would also require lenders to enforce the expanded MPR.

16. Expand the MPR to all structures in the SFHA, not just those with federally backed mortgages. The Association of State Floodplain Managers suggested that all properties within the SFHA should be required to have flood insurance, not just those with federally backed mortgages.¹³⁹ This would require every homeowner and business mapped into the SFHA to purchase flood insurance, whether or not they have a mortgage. This would require congressional action to change the provision in the NFIA that links the purchase of flood insurance to financial assistance in any area identified by the FEMA administrator as an area having special flood hazards.¹⁴⁰ This option would also require lenders to enforce the expanded MPR, or require the introduction of another method of enforcement.

17. Require all structures in the floodplain (both the 1%-annual-chance floodplain and the 0.2%-annual-chance floodplain) to purchase flood insurance. This would require all structures in the wider floodplain to purchase flood insurance. Currently, properties outside the SFHA are not required to purchase flood insurance but may voluntarily purchase a lower-cost NFIP policy. Between 2015 and 2019, more than 40% of NFIP claims came from properties outside the SFHA.¹⁴¹

18. Base the MPR on property-level expected damages instead of the boundary of the SFHA. This approach could, for example, require the purchase of flood insurance for any properties with expected losses above a defined amount.

19. Offer community flood insurance policies. A community insurance option would allow a community to purchase a group flood insurance policy on behalf of all properties that are at risk of flooding. The community would pay a single premium for the group policy. Community insurance would increase take-up rates by automatically insuring all members of a participating community. This could potentially exacerbate affordability problems by forcing all members of a community to pay flood insurance premiums. However, if Congress believes that community flood insurance should be encouraged, it could choose to provide funds in order to offer discounted premiums, or to offer coverage to all properties in both the 1%-annual-chance floodplain and the 0.2%-annual-chance floodplain in order to promote resilience.¹⁴²

20. Require all homeowners and businesses that receive disaster assistance for flood damage to obtain and maintain flood insurance. This requirement is already in place for properties that receive FEMA Public Assistance, FEMA Individuals and Households Program assistance, and Small Business Administration Disaster Loans. Recipients of funding from these programs are required to obtain and maintain flood insurance as a condition of

¹³⁷ 42 U.S.C. §4012a(a).

¹³⁸ 44 C.F.R. §59.1.

¹³⁹ Association of State Floodplain Managers, Inc., *Rethinking the NFIP*, ASFPM Comments on NFIP Reform, January 11, 2011, p. 5, http://www.floods.org/ace-files/documentlibrary/National_Policy/Rethinking_the_NFIP_Comments_from_ASFPM_1-11-11.pdf.

¹⁴⁰ 42 U.S.C. §4012a(a).

¹⁴¹ FEMA, *Answers to Questions About the NFIP*, p. 13, https://www.fema.gov/sites/default/files/2020-05/f084_atq_11aug11.pdf.

¹⁴² See, for example, Carolyn Kousky and Leonard Shabman, *A Proposed Design for Community Flood Insurance*, Resources For the Future, Washington, DC, December 2015, pp. 21-23, <https://media.rff.org/archive/files/document/file/RFF-Rpt-KouskyShabman-CommunityFloodIns.pdf>.

receiving future disaster assistance for a flood event, or forfeit future disaster assistance for flooding. Similar requirements could be introduced for all residential and commercial properties that receive disaster assistance for flooding.

Increase NFIP Income

The NFIP is different from other disaster assistance in that it is not directly funded by taxpayers. The majority of the NFIP's income is provided by policyholders' premiums, fees, and surcharges, which are used to pay claims for covered flood damages. In addition, there are charges added to the premium to cover the administrative costs of the program, including claims handling by private insurers, and to build up a financial reserve to cover catastrophic-loss years. As the NFIP currently operates, rates for full risk-based policies are intended to cover the expected cost associated with all potential flood events, including less likely, high-cost events.¹⁴³

The NFIP has three sources of funding: (1) premiums, fees, and surcharges from NFIP policyholders; (2) annual appropriations for some of the costs of flood mapping; and (3) borrowing from the U.S. Treasury when the balance of the National Flood Insurance Fund (NFIF) has been insufficient to pay claims. The only direct appropriations to the NFIP are to supplement floodplain mapping activities; the remainder of flood mapping costs are paid by NFIP policyholders through the Federal Policy Fee (FPF). According to FEMA, in FY2020, 36.4% of spending on flood mapping came from the FPF and 63.6% from appropriations.¹⁴⁴ In recent years, appropriations to the NFIP for flood mapping have varied between \$100 million and \$263 million, an amount that represented 2.1% to 5.5% of the NFIP's income. These appropriations amounted to \$993.1 million between FY2015 and FY2020.¹⁴⁵

In contrast, for example, the federal crop insurance program has permanent, indefinite funding authority: annual funding comes from both mandatory and discretionary appropriations.¹⁴⁶ The average cost of the program is projected at nearly \$8 billion per year for FY2021 to FY2025 and to remain around that level for FY2026 to FY2030.¹⁴⁷ On average, the federal government pays roughly 60% of agricultural producers' insurance premiums.¹⁴⁸ CBO projects that the federal crop insurance program will cost almost \$40 billion for the five-year period FY2021 to FY2025 and more than \$80 billion for the 10-year period FY2021 to FY2030.¹⁴⁹

Because close to 95% of the NFIP's costs are borne by policyholders, anything that increases NFIP income from sources other than policyholders, or that reduces NFIP costs paid by policyholders, ultimately reduces the amount that NFIP policyholders have to pay. In addition to paying NFIP claims, policyholders also pay the costs of many noninsurance activities in the public interest, such as flood mitigation grants and floodplain mapping and management.¹⁵⁰ The

¹⁴³ *CBO Affordability*, p. 26.

¹⁴⁴ Email from FEMA Congressional Affairs staff, January 25, 2021.

¹⁴⁵ See Table 5 in CRS Report R44593, *Introduction to the National Flood Insurance Program (NFIP)*, by Diane P. Horn and Baird Webel.

¹⁴⁶ For more information, see CRS Report R46686, *Federal Crop Insurance: A Primer*, by Stephanie Rosch.

¹⁴⁷ *Ibid.*, pp. 3-4.

¹⁴⁸ CBO, *USDA Mandatory Farm Programs—CBO's Baseline as of March 6, 2020*, March 19, 2020, p. 1, <https://www.cbo.gov/system/files/2020-03/51317-2020-03-usda.pdf>.

¹⁴⁹ *Ibid.*, p. 24.

¹⁵⁰ For example, in FY2020 NFIP policyholders paid \$192.78 million for floodplain management and flood mapping and \$175 million on flood mitigation assistance. See Table 5 in CRS Report R44593, *Introduction to the National Flood Insurance Program (NFIP)*, by Diane P. Horn and Baird Webel.

benefits of such tasks are not directly measured in the NFIP's financial results from underwriting flood insurance.¹⁵¹ One way to reduce NFIP policyholders' cost burden would be for the federal government to pay some of the costs that are currently paid for by NFIP policyholders. CBO noted that, like debt service, mapping and mitigation costs are not related to current NFIP policies, and suggested that Congress could shift those costs to taxpayers by funding those activities out of general revenue.¹⁵²

Options to Increase NFIP Income

21. **Charge actuarially sound rates for all policies and/or increase fees and surcharges.** Subsidies are being phased out under Risk Rating 2.0, but further reform of the rating system could be considered. This could be done by eliminating all subsidies or increasing the rate at which subsidies are phased out. Policyholders who are cross-subsidizing other policies could benefit from this. However, as long as the NFIP is primarily funded by policyholders, such an action could increase premiums for other policyholders.
22. **Reduce the number of Repetitive Loss and Severe Repetitive Loss properties.** To the extent that other NFIP policyholders are subsidizing RL and SRL properties, reducing the number of such properties, either through mitigation or other means, could reduce the cross-subsidy paid by other NFIP policyholders and thus their premiums.
23. **Prioritize sales of policies that are more likely to contribute to a net surplus.** CBO has suggested that FEMA could be directed to increase its marketing and publicity efforts, and to prioritize sales of particular types of policies; for example, commercial and nonresidential properties that pay a higher HFIAA surcharge.¹⁵³ CBO noted that the success of such an approach would depend on FEMA's ability to target the growth in policies.¹⁵⁴
24. **Increase appropriations to the NFIP.** The only direct annual appropriations for the NFIP are for a portion of the costs of the mapping and risk analysis program. Congress could appropriate additional funding to the NFIP, which would reduce the amount that policyholders would have to pay to cover the costs of the program.¹⁵⁵

Reduce NFIP Debt

The NFIP was not designed to retain funding to cover claims for truly extreme events; instead, the National Flood Insurance Act of 1968 allows the program to borrow money from the Treasury for such events. For most of the NFIP's history, the program has generally been able to cover its costs, borrowing relatively small amounts from the Treasury to pay claims and then repaying the loans with interest. Currently, Congress has authorized FEMA to borrow no more than \$30.425 billion from the U.S. Treasury to operate the NFIP.¹⁵⁶ The NFIP currently has \$9.9 billion of remaining borrowing authority.¹⁵⁷

¹⁵¹ American Academy of Actuaries Flood Insurance Work Group, *The National Flood Insurance Program: Challenges and Solutions*, April 2017, p. 79, <http://www.actuary.org/files/publications/FloodMonograph.04192017.pdf>.

¹⁵² *CBO Affordability*, p. 26.

¹⁵³ For information on the HFIAA surcharge, see the section in this report on "Fees and Surcharges."

¹⁵⁴ *CBO Affordability*, p. 24.

¹⁵⁵ See the discussion of the Infrastructure Investment and Jobs Act, P.L. 117-58, in point 36 in the section of this report on "Options to Encourage Community-Level Flood Risk Reduction Measures."

¹⁵⁶ P.L. 113-1.

¹⁵⁷ FEMA, *Watermark, FY2021, Third Quarter*, https://www.fema.gov/sites/default/files/documents/fema_fima-

The NFIP was forced to borrow heavily to pay claims in the aftermath of three catastrophic flood seasons—the 2005 hurricane season (particularly Hurricanes Katrina, Rita, and Wilma), Hurricane Sandy in 2012, and the 2017 hurricane season (Hurricanes Harvey, Irma, and Maria).¹⁵⁸ On October 26, 2017, Congress cancelled \$16 billion of NFIP debt, making it possible for the program to pay claims for Hurricanes Harvey, Irma, and Maria.¹⁵⁹ This represents the first time that NFIP debt has been cancelled.

Only current and future participants in the NFIP are responsible for repaying NFIP debt, as the insurance program itself owes the debt to the Treasury and pays for accruing interest on that debt through the premium revenues of policyholders. Under its current authorization, the only means the NFIP has to pay off the debt is through the accrual of premium revenues in excess of outgoing claims, and from payments made out of the Reserve Fund.¹⁶⁰

Reducing NFIP debt could lessen the need to raise premiums to pay interest and principal on existing debt. For example, from FY2006 to FY2016 (i.e., since the NFIP borrowed funds following Hurricane Katrina), the NFIP has paid \$2.82 billion in principal repayments and \$5.41 billion in interest to service the debt through the premiums collected on insurance policies.¹⁶¹ Currently the NFIP is paying over \$400 million a year—over \$1 million in interest per day—on the debt accrued from past events.¹⁶² For example, the NFIP paid \$438 million in interest in FY2020¹⁶³ and \$418 million in FY2019.¹⁶⁴ CBO estimated that retiring the debt would require increasing annual payments from policyholders. For example, paying off the debt over 30 years at an interest rate of 2.5% would entail annual payments of roughly \$1.2 billion for principal and interest.¹⁶⁵

In addition to charging policyholders enough to pay for their current risk of flood losses, FEMA has collected a reserve fund assessment since 2012, and an additional surcharge from all NFIP policyholders since 2014 to help repay program debt. This creates a potential inequity because policyholders are charged not only for the flood losses that they are expected to incur, but also for losses incurred by past policyholders. Charging current policyholders for debt incurred in past years runs contrary to generally accepted actuarial principles and private insurers' pricing practices.¹⁶⁶ According to actuarial principles, a premium rate is based on the risk of future losses and does not include past costs. For example, if in prior years a private insurance company's

watermark-FY2021-Q3.pdf.

¹⁵⁸ For details of NFIP borrowing, see CRS Insight IN10784, *National Flood Insurance Program Borrowing Authority*, by Diane P. Horn.

¹⁵⁹ P.L. 115-72, Title III, §308.

¹⁶⁰ 42 U.S.C. §4017a.

¹⁶¹ FEMA, *Watermark, FY2021, Third Quarter*, https://www.fema.gov/sites/default/files/documents/fema_fima-watermark-FY2021-Q3.pdf.

¹⁶² FEMA, *National Flood Insurance Program Debt Repayment Report as of September 30, 2019*, September 15, 2020, p. 10. Provided to CRS by FEMA Congressional Affairs Staff, January 4, 2020.

¹⁶³ FEMA, *Watermark, FY2021, Third Quarter*, https://www.fema.gov/sites/default/files/documents/fema_fima-watermark-FY2021-Q3.pdf.

¹⁶⁴ FEMA, *National Flood Insurance Program Debt Repayment Report as of September 30, 2019*, September 15, 2020, p. 10. Provided to CRS by FEMA Congressional Affairs Staff, January 4, 2020.

¹⁶⁵ *CBO Affordability*, p. 26.

¹⁶⁶ *GAO Solvency*, p. 16.

claims payments had exceeded the premiums collected, it would not recall those payments from current or future policyholders.¹⁶⁷

GAO has considered the option of eliminating FEMA's debt to the Treasury, suggesting that if the debt were eliminated, FEMA could reallocate funds used for debt repayment for other purposes such as building a reserve fund and program operations, and arguing that this would also be more equitable for current policyholders and consistent with actuarial principles.¹⁶⁸ CBO suggested that forgiving the NFIP's debt would eliminate the need for large premium increases that would otherwise be required to repay the debt.¹⁶⁹

An affordability report by the National Research Council (NRC) of the National Academy of Sciences considered the option of forgiving all or part of the NFIP debt within a larger affordability context, suggesting that after forgiving all or part of the NFIP debt, Congress could designate the Treasury as reinsurer for the NFIP. It proposed that Congress could, for example, explicitly state that when the total annual losses in the NFIP exceeded some designated threshold (e.g., \$2 billion to \$6 billion, perhaps on the basis of the average of noncatastrophic historical claims years), the Treasury could provide funds for the NFIP to honor all claims. The funds could be provided through the Disaster Relief Fund and, if needed, by an emergency supplemental appropriation. The NRC suggested that, taken together, those two actions could result in lower NFIP premiums, enhance affordability, and in turn lead to less spending on disaster assistance. This would incur occasional costs by designating the Treasury as the source of funds for payment of claims above the defined threshold in high-loss years but would not need to draw on the Treasury each year to provide assistance to policyholders who face unaffordable premiums.¹⁷⁰

The Build Back Better Act, as passed by the House on November 19, 2021, would cancel the full \$20.525 billion debt owed by the NFIP to the Treasury and direct FEMA to spend an amount equal to the interest that the NFIP would have paid in servicing the cancelled debt for flood mapping in FY2022 and FY2023.

Options to Reduce NFIP Debt

25. Eliminate NFIP interest payments to Treasury. The NFIP is currently paying over \$400 million a year in interest.¹⁷¹ If these interest payments were eliminated, this money could be made available to reduce NFIP premiums, fund additional mitigation measures, or fund other actions that could benefit NFIP policyholders.¹⁷²

26. Cancel all or part of NFIP debt. Eliminating the NFIP debt would require Congress to cancel debt outright, to appropriate funds for FEMA to repay the debt, or to change the law to eliminate the requirement that FEMA repay the accumulated debt.¹⁷³ GAO has suggested that if FEMA's debt to the Treasury were eliminated, FEMA could reallocate funds used for debt

¹⁶⁷ Ibid.

¹⁶⁸ Ibid.

¹⁶⁹ *CBO Affordability*, p. 26.

¹⁷⁰ *NRC Affordability Report I*, pp. 110-111.

¹⁷¹ For example, the NFIP paid \$415 million in interest in FY2019 and \$438 million in FY2020. See FEMA, *Watermark, FY2021, Third Quarter*, https://www.fema.gov/sites/default/files/documents/fema_fima-watermark-FY2021-Q3.pdf.

¹⁷² For example, S. 3128 and H.R. 5802 in the 117th Congress would prohibit the Treasury from charging interest to the NFIP for the five-year period beginning on the date of enactment.

¹⁷³ 42 U.S.C. §4016.

repayment for other purposes such as building a reserve fund for catastrophic-loss years and/or program operations, which would arguably be more equitable for current policyholders.¹⁷⁴

27. Change the way that losses from catastrophic storms are financed. If Congress were to authorize supplements from the Treasury to be used for making NFIP claims payments in catastrophic-loss years, this would reduce the cost to policyholders in paying these claims. For example, FEMA's report to Congress on privatization of the NFIP concluded that it is difficult to imagine a practical system of flood insurance in which there is not some level of government involvement in the flood risk financing chain. The report argued that when low-frequency, high-magnitude events occur, the government will ultimately play a role in paying for the economic costs associated with a catastrophic flood, whether or not it chooses to underwrite the risk.¹⁷⁵ The NFIP currently has no financial structure in place, other than borrowing from the Treasury, to guarantee it can pay claims from a catastrophic-loss year. The American Academy of Actuaries has argued that neither private insurers nor the NFIP can fully absorb any level of catastrophic loss and continue to operate. It suggested that there is a maximum amount of short-term loss that can be fully funded by NFIP revenue; Congress could set a threshold for the maximum amount of losses that the NFIP would be expected to fund fully. Beyond that threshold, the federal government would assume responsibility for losses.¹⁷⁶

28. Purchase additional reinsurance. The purchase of private market reinsurance¹⁷⁷ reduces the likelihood of FEMA needing to borrow from the Treasury to pay claims.¹⁷⁸ In addition, as GAO noted, reinsurance allows FEMA to price some of its flood risk up front through the premiums it pays to the reinsurers rather than borrowing from Treasury after a flood.¹⁷⁹ From a risk management perspective, using reinsurance to cover losses in only the more extreme years could help the federal government manage and reduce the volatility of its losses over time. Transfer of risk to the private sector through reinsurance, however, is unlikely to lower the overall cost of the NFIP because reinsurers understandably charge premiums to compensate for the risk they assume. The primary benefit of reinsurance is to transfer and manage risk rather than to reduce the NFIP's long-term fiscal exposure,¹⁸⁰ and the purchase of reinsurance would reduce future debt rather than make the program more affordable at present.

¹⁷⁴ GAO Solvency, p. 16.

¹⁷⁵ FEMA, *National Flood Insurance Program Report to Congress on Reinsuring NFIP Insurance Risk and Options for Privatizing the NFIP*, August 13, 2015, p. 56, http://www.floods.org/ace-files/documentlibrary/2012_NFIP_Reform/Reinsuring_NFIP_Insurance_Risk_and_Options_for_Privatizing_the_NFIP_Report.pdf.

¹⁷⁶ American Academy of Actuaries Flood Insurance Work Group, *The National Flood Insurance Program: Challenges and Solutions*, April 2017, pp. 28, 31, and 80, <http://www.actuary.org/files/publications/FloodMonograph.04192017.pdf>.

¹⁷⁷ Reinsurance is defined as a transaction between a primary insurer and another licensed (re)insurer where the reinsurer agrees to cover all or part of the losses and/or loss adjustment expenses of the primary insurer. See National Association of Insurance Commissioners, *Glossary of Insurance Terms*, http://www.naic.org/consumer_glossary.htm#R.

¹⁷⁸ FEMA began large-scale purchases of reinsurance in 2017. The specifics of each reinsurance purchase has varied, but in general, the reinsurance has been designed to pay a certain percentage of the losses from a single, large-scale event, with a higher percentage if losses are higher. See FEMA, *National Flood Insurance Program's Reinsurance Program*, <https://www.fema.gov/flood-insurance/work-with-nfip/reinsurance>.

¹⁷⁹ GAO Solvency, p. 19.

¹⁸⁰ Ibid.

Reduce Flood Damage Through Mitigation

FEMA defines *mitigation* as any sustained action to reduce or eliminate long-term risk to both people and property from natural hazards and their effects.¹⁸¹ Flood mitigation creates safer communities and can save money for individuals and taxpayers. The importance of FEMA's Hazard Mitigation Assistance (HMA) programs is illustrated by research findings that for every \$1 invested by FEMA in flood mitigation between 1993 and 2003, society as a whole saved \$7 due to reduced future flood losses.¹⁸² If mitigation actions lead to lower damages and lower expected claims, they could make NFIP policies less expensive for households that implement them. An affordability program could be linked to mitigation loans or grants to reduce flood risk over time.¹⁸³ For example, homeowners could receive a loan or grant to make their property more resistant to flood damage, which could reduce flood risk and lower the cost of flood insurance premiums.

GAO suggested that instead of premium assistance, it would be preferable to address affordability by providing assistance for mitigation measures that would reduce flood risk and enhance resilience, and ultimately result in a lower premium rate.¹⁸⁴ GAO has suggested on numerous occasions that increasing mitigation activities would help to reduce flood risk and financial exposure,¹⁸⁵ including suggesting that FEMA could make mitigation activities mandatory, in conjunction with targeted financial assistance for policyholders.¹⁸⁶ In addition, property-level mitigation measures can reduce NFIP policyholders' premiums significantly. For example, FEMA estimates that elevating a property in the SFHA one foot above Base Flood Elevation (BFE) could result in a 30% reduction in annual premiums.¹⁸⁷ The Association of State Floodplain Managers calculated that elevating a property one foot above BFE could reduce annual flood insurance premiums by over \$1,000, while elevating a property two or three feet above BFE could reduce premiums by over \$1,400 and \$1,500, respectively.¹⁸⁸ Insurance provisions could also provide incentives to limit flood damage by rewarding well-designed buildings with lower premiums, lower deductibles, or higher coverage limits. These incentives could also be made available to existing properties that implement new flood mitigation measures.

The NFIP offers three programs that encourage individuals or communities to reduce flood risk: Increased Cost of Compliance coverage, the Community Rating System, and the Flood Mitigation Assistance (FMA) grant program. These programs are funded entirely by premiums, fees, and

¹⁸¹ FEM, *Hazard Mitigation Assistance Guidance*, Washington, DC, February 27, 2015, p. 1, https://www.fema.gov/sites/default/files/2020-07/fy15_HMA_Guidance.pdf.

¹⁸² National Institute of Building Sciences, *Natural Hazard Mitigation Saves: 2019 Report*, Washington, DC, 2019, p. 37, https://www.nibs.org/files/pdfs/NIBS_MMC_MitigationSaves_2019.pdf. Note that the widely cited figure that \$1 spent from federal grants saves \$6 in future losses is an average across five hazards: riverine flood, hurricane surge, wind, earthquake, and wildland-urban interface fire. The study did not have enough data to calculate a benefit-cost ratio for federal grants for hurricane surge, but the benefit-cost ratio for federal grants for riverine flood is 7:1.

¹⁸³ *GAO Solvency*, p. 43.

¹⁸⁴ *Ibid.*

¹⁸⁵ See, for example, *GAO Solvency*, p. 25.

¹⁸⁶ GAO, *Flood Insurance: More Information Needed on Subsidized Properties*, GAO-13-607, July 3, 2013, p. 38, <https://www.gao.gov/products/gao-13-607>.

¹⁸⁷ FEMA, *Help Clients Pay Less for Flood Insurance*, <https://agents.floodsmart.gov/retention/costs>.

¹⁸⁸ Association of State Floodplain Managers, *The Costs & Benefits of Building Higher*, June 30, 2017, p. 2, <https://www.ifma.org/assets/docs/Benefits-and-Costs-of-Freeboard-flyer-6-30-17.pdf>. Note that these estimates are for a single-family house, one floor, slab on grade foundation, with \$200,000 of building coverage, \$80,000 in contents coverage, and \$1,000 deductible, at 2017 prices.

surcharges paid by NFIP policyholders. Reducing flood risk should lead to fewer NFIP claims over time and less financial support from NFIP policyholders. In addition, protection against flooding is in itself a benefit for households. Owners of mitigated properties may realize savings in a number of ways. In particular, they may escape damage during floods and avoid costs of repair and rebuilding.

Another way that the NFIP promotes mitigation is by requiring communities in the NFIP to adopt minimum floodplain management standards. According to FEMA, the program saves the nation an estimated \$1.87 billion annually in flood losses avoided because of the NFIP's building and floodplain management regulations.¹⁸⁹ Internal FEMA studies have found that structures built to FEMA standards experience 65% less flood damage than structures not built to those standards, saving the nation \$2.4 billion in avoided flood losses each year and \$100 billion over the past 40 years.¹⁹⁰

Communities play a key role in mitigating flood risk through planning and building requirements. FEMA does not regulate land use and does not have authority over local development. Rather, it requires participating communities to adopt the minimum NFIP requirements through zoning, floodplain ordinances, and/or building codes. FEMA has set forth these minimum standards in federal regulations.¹⁹¹ Communities are required to adopt these minimum floodplain management standards in order to participate in the NFIP.¹⁹² NFIP minimum standards include, among many other conditions, that communities (1) require permits for development in SFHAs; (2) require elevation of the lowest floor of all new residential buildings in the SFHA to be at or above BFE; (3) restrict development in the regulatory floodway to prevent increasing the risk of flooding; and (4) require certain construction materials and methods that minimize future flood damage.¹⁹³ These requirements apply to new construction in the SFHA.

FEMA has issued a request for public comment on revising the NFIP's floodplain management standards in response to a petition submitted by the Natural Resources Defense Council and the Association of State Floodplain Managers in January 2021.¹⁹⁴ FEMA has not updated the NFIP criteria for building and land use in flood-prone areas since they were implemented in 1976,¹⁹⁵ despite growing flood risk and the existence of more protective standards at the state and local levels.¹⁹⁶

¹⁸⁹ *GAO Solvency*, p. 5.

¹⁹⁰ Email from FEMA Congressional Affairs staff, January 25, 2021.

¹⁹¹ See 44 C.F.R. Part 60, particularly 44 C.F.R. §60.3.

¹⁹² 42 U.S.C. §4022(a)(1).

¹⁹³ 44 C.F.R. §60.3.

¹⁹⁴ Natural Resources Defense Council and the Association of State Floodplain Managers, *Petition Requesting That the Federal Emergency Management Agency Amend Its Regulations Implementing the National Flood Insurance Program*, Washington, DC, January 5, 2021, <https://www.nrdc.org/sites/default/files/petition-fema-rulemaking-nfip-20210105.pdf>.

¹⁹⁵ FEMA, "Request for Information on the National Flood Insurance Program's Floodplain Management Standards for Land Management and Use, and an Assessment of the Program's Impact on Threatened and Endangered Species and Their Habitats," 86(194) *Federal Register* 56713-56719, October 12, 2021.

¹⁹⁶ Natural Resources Defense Council and the Association of State Floodplain Managers, *Petition Requesting That the Federal Emergency Management Agency Amend Its Regulations Implementing the National Flood Insurance Program*, Washington, DC, January 5, 2021, p. 48, <https://www.nrdc.org/sites/default/files/petition-fema-rulemaking-nfip-20210105.pdf>.

Property-Level Mitigation

The main source of funding for property-level mitigation measures is Increased Cost of Compliance (ICC) coverage, which is in effect a separate insurance policy to offset the expense of complying with more rigorous building code standards when local ordinances require them to do so. The NFIP requires most policyholders¹⁹⁷ to purchase ICC coverage. ICC coverage is authorized in law, and rates for the coverage, as well as how much can be paid out for claims, are set by FEMA.¹⁹⁸ The ICC policy has a separate rate premium structure and provides an amount up to \$30,000 in payments for certain eligible expenses. For example, ICC claims payments may be used toward the costs of elevating, demolishing, relocating, or flood-proofing nonresidential buildings, or any combination of these actions. According to ICC data, elevation is the most common form of mitigation.¹⁹⁹ Although the cost of elevating a structure depends on the type of building and elevation requirement, the average cost of elevating an existing property has been estimated at \$33,239 to \$91,732,²⁰⁰ and suggestions have been made for years that the amount of ICC coverage should be raised.²⁰¹

At the household level, there are currently few mitigation actions that lower premiums. The most commonly used interventions are structural elevation and flood-proofing (under certain circumstances).²⁰² However, even with the potential benefits of reduced future losses and decreased premiums, mitigation activities often require large upfront costs. Such risk reduction measures may be too expensive for many policyholders, and additional sources of funding may be needed, such as mitigation grants or loans. Such products could take the form of a stand-alone program or could be used in conjunction with other affordability approaches. The type of support for property-level mitigation activities could also be mixed: for example, grants could be made available for lower-income or cost-burdened households, and loans made available to households above this threshold.

Currently the only mitigation activities for which the NFIP gives premium credit are elevating a structure and flood-proofing under certain circumstances.²⁰³ According to FEMA, Risk Rating 2.0 would initially provide credits for three mitigation actions: (1) installing flood openings according to the criteria in 44 C.F.R. §60.3;²⁰⁴ (2) elevating onto posts, piles, and piers; and (3) elevating machinery and equipment above the lowest floor.²⁰⁵

¹⁹⁷ For example, ICC coverage is not required on condominium units and content-only policies.

¹⁹⁸ 42 U.S.C. §4011(b).

¹⁹⁹ See, for example, FEMA, *NFIP: Use of Increased Cost of Compliance Coverage*, FY2009 Report to Congress, October 2009, p. 6. Report provided to CRS by FEMA Congressional Affairs Staff, and Natural Resources Defense Council and the Association of State Floodplain Managers, *Petition Requesting That the Federal Emergency Management Agency Amend Its Regulations Implementing the National Flood Insurance Program*, Washington, DC, January 5, 2021, p. 48, <https://www.nrdc.org/sites/default/files/petition-fema-rulemaking-nfip-20210105.pdf>.

²⁰⁰ Aerts, J.C.J.H., Botzen, W.J.W., Moel, H. de, et al., “Cost Estimates for Flood Resilience and Protection Strategies in New York City,” *Annals of the New York Academy of Sciences*, vol. 1294, no. 1 (August 2013), pp. 22-26.

²⁰¹ See, for example, FEMA, *NFIP: Use of Increased Cost of Compliance Coverage*, FY2009 Report to Congress, October 2009, p. 32.

²⁰² See FEMA, *Flood Insurance Manual, 3. How to Write*, pp. 3-69 to 3-70, revised April 2021, https://www.fema.gov/sites/default/files/documents/fema_nfip-all-flood-insurance-manual-apr-2021.pdf.

²⁰³ See FEMA, *Flood Insurance Manual, 3. How to Write*, pp. 3-67 to 3-70, revised April 2021, https://www.fema.gov/sites/default/files/documents/fema_fim-3-how-to-write_apr2021.pdf.

²⁰⁴ 44 C.F.R. Part 60, *Criteria for Land Management and Use*, <https://www.govinfo.gov/content/pkg/CFR-2012-title44-vol1/pdf/CFR-2012-title44-vol1-sec60-3.pdf>.

²⁰⁵ See FEMA, *Flood Insurance Manual: How to Write*, pp. 3-27 to 3-32, revised October 1, 2021,

Community-Level Mitigation and Floodplain Management Standards

Some additional community-level mitigation measures could lead to lower NFIP premiums by removing properties from the SFHA, reducing the flood risk to individual properties, or by increasing a community's score in the Community Rating System (CRS).

The CRS is a voluntary incentive-based program that rewards communities for adopting floodplain management practices to a higher standard than the NFIP minimum standards by providing reduced-cost flood insurance premiums to policyholders in the community.²⁰⁶ FEMA awards points that increase a community's "class" rating in the CRS on a scale of 1 to 10, with 1 being the highest ranking. Points are awarded for an array of improvements related to how the community informs its public on flood risk, maps and regulates its floodplain, reduces possible flood damage, and provides immediate warnings and responds to flooding incidents.²⁰⁷ Starting at Class 9, policyholders in the SFHA within a CRS community receive a 5% discount on their SFIP premiums, with increasing discounts of 5% per class until reaching Class 1, at which those policyholders can receive a 45% discount.

Options that improve a community's CRS score will directly lower households' premiums by increasing the CRS discount on premiums. In addition, the CRS program provides an average 13.3% discount on SFIP premiums across the NFIP,²⁰⁸ which is cross-subsidized into the NFIP program, such that the discount for one community ends up being offset by increased premium rates in all communities across the NFIP. Therefore, the average 13.3% discount for CRS communities is cross-subsidized and shared across NFIP communities through a cost (or load) increase of 15.3% to overall premiums.²⁰⁹

The Flood Mitigation Assistance (FMA) Program²¹⁰ awards grants for a number of purposes, with the goal of mitigating flood-damaged properties to reduce or eliminate future NFIP claims, particularly from repetitive loss and severe repetitive loss properties. FMA funds mitigation activities such as state and local mitigation planning; the elevation, relocation, demolition, or flood proofing of structures; the acquisition of properties; and other activities.²¹¹ FMA funding is available only to communities that participate in the NFIP. FMA grants are not available to individuals, although communities may apply for funding that benefits individual NFIP policyholders.

Providing increased federal funding for FMA could reduce flood risks and thus decrease the contributions to mitigation funding from NFIP policyholders. The annual amount available for FMA from FY2015 through FY2020 has varied between \$150 and \$200 million.²¹²

https://www.fema.gov/sites/default/files/documents/fema_nfip-flood-insurance-manual-sections-1-6_oct2021.pdf.

²⁰⁶ 42 U.S.C. §4022(b)(1).

²⁰⁷ For a full listing of possible creditable activities in the Community Rating System, see FEMA, *NFIP Community Rating Coordinator's Manual 2017*, https://www.fema.gov/media-library-data/1493905477815-d794671adeed5beab6a6304d8ba0b207/633300_2017_CRS_Coordinators_Manual_508.pdf.

²⁰⁸ Email correspondence from FEMA Congressional Affairs staff, October 22, 2020.

²⁰⁹ *Ibid.*

²¹⁰ 42 U.S.C. §4104c.

²¹¹ For additional information on the FMA Program, see 44 C.F.R. Part 78, and FEMA's website at <https://www.fema.gov/grants/mitigation/floods>.

²¹² See Table 5 in CRS Report R44593, *Introduction to the National Flood Insurance Program (NFIP)*, by Diane P. Horn and Baird Webel.

The Infrastructure Investment and Jobs Act (IIJA)²¹³ appropriates \$3.5 billion for the FMA program, with \$700 million for each of FY2022 through FY2026. This represents a significant increase in the amount of funding available for flood mitigation, and the first time that funding has been appropriated for the FMA program.

Other mitigation measures that reduce flood risk, particularly at the community level, may not lead directly to a reduction in flood insurance premiums for residents of that community, but may lead to reduced insurance claims, which would benefit NFIP finances as a whole.

Options to Encourage Property-Level Mitigation Activities

29. Provide premium discounts for additional property-level mitigation activities.

Congress could require FEMA to identify additional property-level mitigation activities for which NFIP policyholders could receive a reduced premium. To do this, FEMA would need to develop data and analyses that would link the measures' expected reduction in insurance losses to insurance premiums.²¹⁴

30. Provide grants or loans to allow homeowners and businesses to introduce property-level mitigation activities. This could take the form of increasing funding available through the NFIP FMA program or FEMA's other Hazard Mitigation Assistance programs,²¹⁵ or by introducing new grant or loan programs for individuals and businesses. Currently, individuals and businesses cannot apply directly for mitigation funding. Mitigation grants or loans could be targeted to policyholders who meet defined criteria for affordability assistance, or targeted to certain types of properties. For example, mitigation funds could be targeted to those for whom the cost of NFIP premiums creates an affordability challenge, or for whom the cost of carrying out mitigation measures could be prohibitive, or to households that have little access to commercial credit.²¹⁶ Financial incentives could also be offered to encourage households in flood-prone areas to relocate outside the SFHA.

31. Provide grants or loans targeted at repetitive loss and severe repetitive loss properties. A relatively small number of NFIP properties that are repeatedly flooded contribute disproportionately to NFIP claims. Properties that have suffered multiple flood losses, known as repetitive loss (RL), and severe repetitive loss (SRL) properties are at greater risk than the average property insured by the NFIP. In the past 30 years, one out of every six dollars paid out in NFIP claims has gone to a building with a history of multiple floods; approximately \$10.9 billion in claims have been paid on properties with two or more losses, accounting for over 15% of FEMA's total of \$70.6 billion claims paid during the same period.²¹⁷ For such properties, the benefits of reduced flood risk and lower premiums may exceed the costs of mitigation. Targeting mitigation grants and/or loans at RL and SRL properties could reduce both the premiums paid by these policyholders and the overall fiscal risk to the NFIP.²¹⁸

²¹³ P.L. 117-58.

²¹⁴ NRC *Affordability Report 1*, p. 108.

²¹⁵ See CRS Insight IN11187, *Federal Emergency Management Agency (FEMA) Hazard Mitigation Assistance*, by Diane P. Horn.

²¹⁶ NRC *Affordability Report 1*, p. 103.

²¹⁷ FEMA, "Request for Information on the National Flood Insurance Program's Floodplain Management Standards for Land Management and Use, and an Assessment of the Program's Impact on Threatened and Endangered Species and Their Habitats," 86(194) *Federal Register* 56713-56719, October 12, 2021.

²¹⁸ GAO, *National Flood Insurance Program: Fiscal Exposure Persists Despite Property Acquisitions*, GAO-20-509,

32. Offer tax deductions or tax credits for mitigation activities. The cost burden of flood mitigation investments could be lowered through tax deductions and tax credits. At various times, Congress has passed legislation to provide tax relief to support recovery following disasters,²¹⁹ and such policy tools could be used to encourage mitigation activities. Tax credits generally provide greater financial assistance as they lower the actual amount of tax paid.²²⁰ However, neither tax credits nor tax deductions may provide broad relief, and do not necessarily target those in need of financial assistance. Tax credits benefit only those owing tax, unless the credit is refundable and a refund is given if the filer owes less tax than the credit. A tax deduction benefits only those paying income tax, and the value of the deduction depends on the taxpayer's marginal tax rate. In addition, policyholders could face cash flow challenges because they would generally need to pay the full premium before they receive the tax benefit.²²¹

33. Establish tax-deductible disaster savings accounts for mitigation activities. Pre-tax funds placed in disaster savings accounts could be used to cover hazard mitigation investments, or could cover disaster damages or flood insurance premiums. Funds could be contributed pre-tax, and amounts withdrawn for designated uses would not be taxed.²²² These accounts could also be used to cover homeowner expenses below their insurance policy deductible. This might encourage homeowners to increase the deductible, which would reduce the NFIP premium for that policy. As with tax deductions, the financial benefit to a household would depend on their marginal tax rate. In addition, a disaster savings account would not help those whose disposable income is not enough to allow them to put funds into a savings account.²²³

Options to Encourage Community-Level Flood Risk Reduction Measures

34. Improve a community's Community Rating System score. A community could join the CRS or, if already participating in the CRS, carry out additional activities to improve its CRS class rating, thereby increasing the discount that residents receive on their flood insurance premiums. In particular, communities could focus on activities that receive a higher number of points, such as adoption of higher regulatory standards, open space preservation, flood protection, or acquisition and relocation of high-risk properties. For every step that a community's CRS rating increases, residents receive an additional 5% increase in their NFIP premium discount. Congress could also provide greater incentives for communities to participate in the CRS, perhaps by increasing the discounts for CRS class ratings. Congress could provide funding for technical assistance or staffing to small communities to enable them to join and participate in the CRS. Congress could direct FEMA to increase the CRS points for flood damage reduction activities that directly reduce flood risk.

35. Encourage the use of green infrastructure and nature-based solutions to reduce flood risk. Nature-based solutions make use of natural processes and ecosystem services for functional purposes, such as living shorelines, where natural habitats such as oyster reefs, mangroves, and salt marshes are used to hold the shoreline in place. FEMA recently elevated

June 25, 2020, p. 34, <https://www.gao.gov/assets/710/707821.pdf>.

²¹⁹ See CRS Report R45864, *Tax Policy and Disaster Recovery*, by Molly F. Sherlock and Jennifer Teefy.

²²⁰ *Ibid.*

²²¹ *GAO Affordability Assistance*, p. 2.

²²² *GAO Affordability Assistance*, pp. 106-107.

²²³ *GAO Affordability Assistance*, p. 107.

the CRS credits for nature-based solutions.²²⁴ The number of points awarded for preserving open space is now among the highest given in the CRS. Credits are awarded according to the percentage of open space in a community's floodplain. The larger the percentage, the more credit is awarded.²²⁵ Nature-based solutions may also provide benefits beyond mitigating the effects of natural hazards, such as improved water and air quality, healthier natural habitats, and added recreational space.

36. Increase federal funding for flood mitigation. Congress could appropriate funding for NFIP flood mitigation, rather than requiring the FMA program to be funded entirely by NFIP policyholders.²²⁶ For example, the IJA appropriates \$3.5 billion for FMA, with \$700 million for each of FY2022 through FY2026. Congress could also provide additional funding to other hazard mitigation programs,²²⁷ which could potentially benefit NFIP communities.

37. Increase the federal cost share of mitigation grants. Congress could increase the federal cost share on mitigation grants, and could target this assistance toward particular types of communities. The cost share for the FMA program is usually 75% federal, 25% nonfederal. However, the cost share is 90% federal, 10% nonfederal for repetitive loss properties, and 100% federal for severe repetitive loss properties. Despite this, obtaining funding for the nonfederal cost share may be difficult for some communities, and Congress could increase the federal cost share to make it possible for such communities to carry out mitigation activities. For example, FEMA intends to reduce the cost share for certain disadvantaged communities in FY2022, as part of the Justice40 Initiative,²²⁸ by using the Centers for Disease Control and Prevention (CDC) Social Vulnerability Index (SVI)²²⁹ at the census tract level at a threshold of 0.7501 or greater as a priority scoring criterion.²³⁰ In addition, the funding appropriated to FMA under the IJA will provide a 90% federal cost share for a property that is (1) located in a census tract with a CDC SVI score of not less than 0.5001, or (2) that serves as a primary residence for individuals with a household income of not more than 100% of the applicable area median income.

²²⁴ FEMA, *Addendum to the 2017 CRS Coordinator's Manual*, January 2021, pp. A-6 to A-9, https://www.fema.gov/sites/default/files/documents/fema_community-rating-system_coordinator-manual_addendum-2021.pdf.

²²⁵ FEMA, *Building Community Resilience with Nature-Based Solutions: A Guide for Local Communities*, Washington, DC, August 6, 2020, p. 18, https://www.fema.gov/sites/default/files/2020-08/fema_riskmap_nature-based-solutions-guide_2020.pdf.

²²⁶ The Infrastructure Investment and Jobs Act (IIJA), P.L. 117-58, appropriates \$3.5 billion for the NFIP Flood Mitigation Assistance Program, with \$700 million for each of FY2022 through FY2026. This represents a significant increase in the amount of funding available for flood mitigation, and the first time that funding has been appropriated for the FMA program.

²²⁷ For more information about FEMA Hazard Mitigation Assistance, see CRS Report R46989, *FEMA Hazard Mitigation: A First Step Toward Climate Adaptation*, by Diane P. Horn.

²²⁸ Executive Office of the President, Office of Management and Budget, *Memorandum for the Heads of Departments and Agencies*, M-21-28, Washington, DC, July 20, 2021, p. 12, <https://www.whitehouse.gov/wp-content/uploads/2021/07/M-21-28.pdf>.

²²⁹ The Centers for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry (CDC/ATSDR) Social Vulnerability Index (SVI) uses United States Census Data to determine the social vulnerability of every census tract, ranked on 15 social factors. SVI scores range from 0 to 1, with 1 representing the highest level of social vulnerability. For example, a SVI ranking of 0.75 means that 75% of census tracts in the nation are less vulnerable than the tract of interest. See *CDC/ATSDR SVI Fact Sheet*, https://www.atsdr.cdc.gov/placeandhealth/svi/fact_sheet/fact_sheet.html, and *CDC SVI 2018 Documentation*, <https://www.atsdr.cdc.gov/placeandhealth/svi/documentation/pdf/SVI2018Documentation-H.pdf>.

²³⁰ DHS, *Notice of Funding Opportunity (NOFO), Fiscal Year 2021 Flood Mitigation Assistance*, p. 4, https://www.fema.gov/sites/default/files/documents/fema_nof-fiscal-year-2021-flood-mitigation-assistance-grants.pdf.

38. Require stronger building codes for new buildings and damaged buildings. Flood risks can also be reduced at the building level. A 2019 study found that, on average, society saves \$5 for every dollar spent on mitigation measures that exceed building code requirements for areas at risk of flooding from rivers, and \$7 for areas at risk of hurricane surge flooding.²³¹ Although building codes are adopted and administered at a community level, the federal government can create incentives for communities to adopt and enforce up-to-date building codes and hazard-resistant design standards.²³² For example, FEMA’s Mitigation Framework Leadership Group suggested that federal programs could be directed to promote the adoption of building codes and other mitigation requirements through incentives such as a higher federal cost share,²³³ discounts on insurance premiums, tax credits, or access to additional grants or loans.²³⁴ FEMA could also provide funding specifically for retrofitting existing buildings.

39. Increase minimum floodplain management standards for NFIP participation. When communities join the NFIP, they must adopt and enforce FEMA’s minimum floodplain management standards, including those that regulate where and how structures may be built within the floodplain. These standards are minimum requirements for NFIP participation; states and communities can elect to adopt higher standards as a means of mitigating flood risk.²³⁵ For example, FEMA minimum standards require that the elevation of the lowest floor of all new residential buildings in the SFHA to be at or above BFE.²³⁶ However, approximately 38% of the U.S. population lives outside of areas with at least one foot of freeboard.²³⁷ A community could require the elevation of the lowest floor to be above BFE, or to BFE plus a freeboard²³⁸ of a defined number of feet above BFE. FEMA has found that the average annual losses avoided for freeboard structures was approximately \$484 million.²³⁹

²³¹ National Institute of Building Sciences, *Natural Hazard Mitigation Saves: 2019 Report*, Washington, DC, 2019, p. 37, https://www.nibs.org/files/pdfs/NIBS_MMC_MitigationSaves_2019.pdf.

²³² For example, FEMA defines a hazard-resistant building code as a “building code with provisions that provide a minimum level of building protection against natural hazards,” and considers a community to be hazard resistant if it adopts either of the two most recent editions of building codes without weakening provisions related to flood, hurricane wind, and seismic hazards. FEMA, *Building Codes Saves: A Nationwide Study*, November 2020, p. xi and p. 3-4, https://www.fema.gov/sites/default/files/2020-11/fema_building-codes-save_study.pdf.

²³³ See, for example, Section 20606 of the Bipartisan Budget Act of 2018 (P.L. 115-123) as it amends Stafford Act Section 406(b) to authorize an increased federal share for Public Assistance to provide incentives to governments to “invest in measures that increase readiness for, and resilience from, a major disaster,” which may include “encouraging the adoption and enforcement of the latest published editions of relevant consensus-based codes, specifications, and standards.”

²³⁴ Department of Homeland Security, Mitigation Framework Leadership Group, *National Mitigation Investment Strategy*, Washington, DC, August 2019, p. 16, https://www.fema.gov/sites/default/files/2020-10/fema_national-mitigation-investment-strategy.pdf.

²³⁵ FEMA has issued a request for information on the NFIP’s floodplain management standards. The public comment period ends on January 27, 2022. See FEMA, “Request for Information on the NFIP’s Floodplain Management Standards for Land Management and Use, and an Assessment of the Program’s Impact on Threatened and Endangered Species and Their Habitats; Public Meeting; Extension of Comment Period,” 86 (222) *Federal Register* 66329-66330, November 22, 2021.

²³⁶ See 44 C.F.R. Part 60, particularly 44 C.F.R. §60.3.

²³⁷ National Institute of Building Sciences, *Natural Hazard Mitigation Saves: 2019 Report*, Washington, DC, 2019, p. 69, https://www.nibs.org/files/pdfs/NIBS_MMC_MitigationSaves_2019.pdf.

²³⁸ FEMA defines freeboard as an additional amount of height above the Base Flood Elevation used as a factor of safety in determining the level at which a structure’s lowest floor must be elevated or floodproofed to be in accordance with the state or community floodplain management standards. See <https://www.fema.gov/glossary/freeboard>.

²³⁹ FEMA, *Building Codes Saves: A Nationwide Study*, November 2020, p. 4-17, <https://www.fema.gov/sites/default/>

40. Require stricter controls on development in the floodplain. Communities play a key role in mitigating flood risk through planning requirements, particularly planning controls that restrict or eliminate new development in hazardous locations and discourage rebuilding in high-risk locations. The NFIP could require stricter standards related to floodplain development or provide greater incentives to limit development in the floodplain. For example, local governments could offer incentives to encourage developers to locate projects outside of the SFHA and/or to adopt flood mitigation measures that exceed those required by law. Another option is the use of conditional land use restrictions, which might require a landowner to restrict future use of the land by allowing limited rebuilding, by totally prohibiting rebuilding or by allowing reconstruction with conditions (e.g., that they will remove structures when threatened by erosion or inundation). The NFIP could also require communities to delineate floodplains based on potential future development and apply higher standards for those areas.²⁴⁰

Concluding Comments

FEMA does not currently have the authority to implement an affordability program, nor does the NFIP's current rate structure provide the funding required to support one. If an affordability program were to be funded from existing NFIP funds, it would require either raising flood insurance rates for NFIP policyholders or diverting resources from another existing use. If Congress were to appropriate funding for an affordability program,²⁴¹ either Congress or FEMA would face decisions on how to structure this program. Choosing among affordability program options, alone or in combination, requires an evaluation of their effects not only on premiums for households for which NFIP premiums create a cost burden, but also on NFIP net revenues, expenditures from federal general revenues, and take-up rates.²⁴²

Evaluation of policy options that would make NFIP premiums more affordable would require the ability to estimate the effect of each one on NFIP premium revenues and affordability. Some of the specific options discussed in this report may have conflicting or cascading impacts, so that movement toward one goal may make others harder to accomplish. For example, increased consumer participation could increase the size and scope of the NFIP, but could potentially increase federal fiscal exposure.²⁴³ Congress and other stakeholders may want answers to questions with a specific focus on location where premiums would change, such as "What are the effects in a particular congressional district for various groups of property owners?" or "Where are the effects concentrated?"²⁴⁴

files/2020-11/fema_building-codes-save_study.pdf.

²⁴⁰ Natural Resources Defense Council and the Association of State Floodplain Managers, *Petition Requesting That the Federal Emergency Management Agency Amend Its Regulations Implementing the National Flood Insurance Program*, Washington, DC, January 5, 2021, pp. 46-47, <https://www.nrdc.org/sites/default/files/petition-fema-rulemaking-nfip-20210105.pdf>.

²⁴¹ For example, the funding appropriated in the House-passed version of the Build Back Better Act.

²⁴² Carolyn Kousky, Brett Lingle, Howard Kunreuther, et al., *Moving the Needle on Closing the Flood Insurance Gap*, Wharton Risk Management and Decision Processes Center, Issue Brief, Philadelphia, PA, February 13, 2019, p. 9, <https://riskcenter.wharton.upenn.edu/wp-content/uploads/2019/02/Moving-the-Needle-on-Closing-the-Flood-Insurance-Gap.pdf>.

²⁴³ *GAO Solvency*, p. 33.

²⁴⁴ National Research Council of the National Academies, *Affordability of National Flood Insurance Program Premiums: Report 2*, 2016, p. 26, <http://www.nap.edu/catalog/21848/affordability-of-national-flood-insurance-program-premiums-report-2>.

Flooding is already the costliest natural disaster annually in the United States, and more frequent and intense flooding from climate change represents an increasing threat in the future.²⁴⁵ The risk exposure of the NFIP will change over time, particularly due to the likelihood of increasing flood risk and continued development in flood-prone areas, with an increased number of properties likely to be identified as being at risk of flooding.²⁴⁶ A 2013 report on the impact of climate change and population growth on the NFIP concluded that nationally, considering fluvial and coastal floods together, the SFHA is projected to be 40%-45% larger by 2100, with approximately 70% of this increase due to climate change.²⁴⁷

The decision about who pays for affordability assistance entails choices on the part of policymakers. For example, one choice relates to the degree to which costs are borne by federal taxpayers versus the NFIP policyholders who do not receive assistance but pay for assistance to others through a cross-subsidy. Another consideration is the degree to which affordability program costs are borne nationally versus more locally (by states, tribal nations, or communities) or are shared by federal and local governments.²⁴⁸ A number of stakeholders have argued that an effective affordability program should be funded not by premium discounts or surcharges on other NFIP policyholders, but rather by a source external to the NFIP.²⁴⁹ For example, GAO argued that providing premium assistance through appropriations rather than discounted premiums would address the policy goal of making the fiscal exposure more transparent because any affordability discounts on premium rates would be explicitly recognized in the budget each year,²⁵⁰ and would make NFIP subsidy costs explicit by requiring Congress to appropriate funds for them.²⁵¹

A central question in any reform of the NFIP is who should bear the costs of floodplain occupancy in the future. The 2015 National Research Council study on flood insurance affordability concluded that the costs of floods can be borne in three possible ways, or in some combination of them.

- Individual policyholders (whether NFIP or private) bear floodplain location cost in the form of insurance premiums paid and damages falling within policy deductible amounts.
- Federal taxpayers bear floodplain location costs if the federal government (1) develops a premium assistance program; (2) makes up for NFIP premium revenue shortfalls; (3) pays for pre-flood mitigation; or (4) makes post-flood disaster assistance payments to individual households.

²⁴⁵ U.S. Government Accountability Office, *FEMA Flood Maps: Better Planning and Analysis Needed to Address Current and Future Flood Hazards*, GAO-22-104079, October 25, 2021, p. 41, <https://www.gao.gov/assets/gao-22-104079.pdf>.

²⁴⁶ See, for example, Natural Resources Defense Council and the Association of State Floodplain Managers, *Petition Requesting That the Federal Emergency Management Agency Amend Its Regulations Implementing the National Flood Insurance Program*, Washington, DC, January 5, 2021, pp. 5-11, <https://www.nrdc.org/sites/default/files/petition-fema-rulemaking-nfip-20210105.pdf>.

²⁴⁷ AECOM, in association with Michael Baker Jr., Inc., and Deloitte Consulting, LLP, *The Impact of Climate Change and Population Growth on the National Flood Insurance Program Through 2100*, Prepared for Federal Insurance and Mitigation Administration, FEMA, June 2013, pp. 5-12 and 5-13, https://aecom.com/content/wp-content/uploads/2016/06/Climate_Change_Report_AECOM_2013-06-11.pdf.

²⁴⁸ *NRC Affordability Report 1*, p. 94.

²⁴⁹ See, for example, *GAO Affordability Assistance*, p. 22, and *GAO Solvency*, p. 27.

²⁵⁰ *GAO Solvency*, p. 27.

²⁵¹ *GAO Affordability Assistance*, p. 39.

- Property owners and other floodplain or coastal zone inhabitants bear the costs for losses that are uninsured or otherwise uncompensated.²⁵²

Reform of the NFIP would reallocate costs across these groups; Congress would face decisions on how that occurs.

²⁵² National Research Council of the National Academies, *Affordability of National Flood Insurance Program Premiums: Report 2*, 2016, p. 12, <http://www.nap.edu/catalog/21848/affordability-of-national-flood-insurance-program-premiums-report-2>.

Table I. Legislative Proposals Related to NFIP Affordability

Congress	Increase Participation in the NFIP	Make NFIP Premiums More Affordable	Encourage Property-Level Flood Mitigation	Encourage Community-Level Flood Mitigation	Increase NFIP Income	Reduce NFIP debt
117 th Congress	S. 3128 §108 ^a	H.R. 4497 §308 S. 3128 §§102, 103, 104, 106, 107, 209 H.R. 1449, §2	S. 3218 §§202, 204, 306	H.R. 4497 §307 S. 3128 §§201, 203, 204, 205, 206, 207, 210 P.L. 117-58.	S. 3128 §208, 303	H.R. 4497 §307 S. 3128 §301 H.R. 5376, §40104.
116 th Congress	H.R. 3167 §§305, 401, 408 S. 2187 ^b §108	H.R. 3167 §§102, 103, 104, 106, 107, 209, 304, 402 S. 2187 §§102, 103, 104, 106, 107, 209 S. 2266 §3	H.R. 3167 §§301, 303 S. 2187 §§202, 204, 306	S. 3167 §§105, 302, 306, 307, 308 S. 2187 §§201, 203, 204, 205, 206, 207, 210	H.R. 3167 §201 S. 2187 §§208, 303	H.R. 3167 §§301, 403 S. 2187 §301
115 th Congress	H.R. 2874 §§507, 513 S. 1313 §102 S. 1368 ^c §410 S. 1571 §303	H.R. 2874 §§102, 103, 111, 112, 202 S. 1313 §§205, 206, 207, 208, 401 S. 1368 §§102, 103, 204, 208 S. 1571 §301	H.R. 2874 §§113, 403, 504 S. 1313 §§204, 206 S. 2168 §§201, 206 S. 1571 §§103, 106	S. 1313 §201 S. 1368 §§202, 207, 422 S. 1571 §107	H.R. 2874 §504 S. 1313 §§403, 404, 501 S. 1368 §§204, 303 S. 1571 §201	H.R. 2874 §§504, 505 S. 1368 §301
114 th Congress	H.R. 3297 §10					
113 th Congress		H.R. 3013 §6 H.R. 3294 §§3, 4	H.R. 1268 §2 H.R. 3298 §2			

Source: CRS analysis of legislation from <https://www.congress.gov>.

Notes: H.R. 5376 as passed by the House on November 19, 2021.

- a. S. 3128 and companion bill H.R. 5802
- b. S. 2187 and companion bill H.R. 3872
- c. S. 1368 and companion bill H.R. 3285

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