IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF LOUISIANA

THE STATE OF LOUISIANA et al., Plaintiffs, v. DEPARTMENT OF HOMELAND SECURITY et al., Defendants.	Action No. 2:23-CV-01839-DJP-JVM

Declaration of David I. Maurstad

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Glossary of Frequently Used Acronyms

AAL – Average Annual Loss
ASOP – Actuarial Standards of Practice
BFE – Base Flood Elevation
BW-12 – Biggert Waters Flood Insurance Reform Act of 2012
CBO – Congressional Budget Office
CRS – Consumer Rating System
CSA – Casualty Actuarial Society
DHS – Department of Homeland Security
DSA – Direct Servicing Agent
EBD – Elevated Building Determination
EV – Elevation Certificate
FEMA – Federal Emergency Management Agency
FFRD – Future of Flood Risk Data
FIMA – Federal Insurance and Mitigation Administration
FIRM – Flood Rate Insurance Map
FMA – Flood Mitigation Assistance
FMIX – FEMA Mapping and Insurance Exchange
GAO – Government Accountability Office
GP – General Property
HFIAA – Homeowner Flood Insurance Affordability Act of 2014
MAPP – Modeling, Analysis, Predictions and Projections
MDI – Mapping Data Integration
NFIP – National Flood Insurance Program
NFIA – National Flood Insurance Act
NOAA – National Oceanic and Atmospheric Administration
NRC – National Research Council
OMB – Office of Management and Budget
PRP – Preferred Risk Policy
RCBAP – Residential Condominium Building Policy
RCV – Replacement Cost Value
SERFF – The System for Electronic Rates & Forms Filing
SFHA – Special Flood Hazard Area
SFIP – Standard Flood Insurance Policy
SLOSH – Sea, Lake, and Overland Surges from Hurricanes
TMAC – Technical Mapping Advisory Counsel
USGS – United States Geological Survey
WYO – Write Your Own

DECLARATION OF DAVID MAURSTAD

1. My name is David Maurstad, and I am the Assistant Administrator for the Federal Insurance Directorate, which is housed within the Federal Emergency Management Agency (FEMA), a component agency of the Department of Homeland Security (DHS). I also served in this capacity from 2016 – 2018.

2. From April 2018 to March 2023, I served as Deputy Associate Administrator for the Federal Insurance and Mitigation Administration (FIMA) and Resilience. From June 2004 to September 2008, I served as Federal Insurance Administrator and Assistant Administrator Mitigation Directorate at FEMA.

3. I am the senior executive for the National Flood Insurance Program (NFIP). I have served in this capacity for over 5 years, assuming the position on April 25, 2018.

4. I submit this Declaration in support of FEMA's Opposition to Plaintiffs' Motion for a Preliminary Injunction. The requested injunction, if granted, would cause significant and irreparable harm to the NFIP, its stakeholders, the policyholders, and the taxpayers.

5. FEMA has committed to implementing reforms to the NFIP, one of which Risk Rating 2.0. FEMA has undertaken Risk Rating 2.0 to correct inadequacies in the legacy rating from the 1970s and implement a rating approach that more equitably distributes flood insurance premiums across all policyholders based on a home's replacement cost and a property's specific flood risk so that premiums are more accurate and equitable.

6. Any injunction stopping the implementation of Risk Rating 2.0 would not be in the public interest and would bring severe financial harm to policyholders, the National Flood Insurance Program (NFIP), the public, FEMA, and the private companies that sell and service NFIP flood insurance policies.

I. The National Flood Insurance Program

7. The National Flood Insurance Act of 1968 (42 U.S.C. § 4001 et seq.), as amended (NFIA), authorizes the Federal Government to provide flood insurance on a national basis to property owners,[1] including businesses, located in any community that participates in the NFIP.

8. Participation in the NFIP is based on a voluntary agreement between participating (local, tribal, States, and territories) communities and the Federal government. If a community adopts and enforces a floodplain management ordinance that meets certain minimum floodplain management requirements to reduce future flood risks within an area known as the Special Flood Hazard Area (SFHA),[2] the Federal government will make flood insurance available to property owners in that community. Because participation is voluntary, a community may withdraw at any time.[3]

9. FEMA administers the NFIP so that insurance policies and floodplain management operations are mutually reinforcing. Providing NFIP flood insurance indemnifies property owners from flood losses and reduces the costs of disaster assistance. NFIP floodplain management requirements are designed to reduce future flood damages and reduce disaster assistance costs. In addition to providing flood insurance and reducing flood damages through floodplain management, the NFIP identifies and maps the nation's floodplains. Maps depicting flood hazard information are disseminated to create broad-based awareness of flood hazards, provide data for

[1] The NFIP also issues policies for contents only insurance to renters.
[2] SFHA or "Area of special flood hazard" is defined in FEMA's regulations as "the land in the flood plain within a community subject to a 1 percent or greater chance of flooding in any given year." 44 C.F.R. § 59.1.
[3] The NFIP is a voluntary program, and a community may withdraw from the program at any time by submitting to the Administrator a certified copy of a legislative action that explicitly states its desire to withdraw from the NFIP. After the Regional Office and Floodplain Management Division review it to ensure that it complies with applicable regulations and policies, the request will be processed. Once reviewed and processed, the Floodplain Management Division will establish a withdrawal date and will officially notify the community via certified letter of the effective withdrawal date and the requirements for reinstatement. Once the community has been notified, community participation is changed to "Withdrawn", and the community status is updated and published in the quarterly Final Rule, *Suspension of Community Eligibility*.

rating flood insurance policies, and determine the appropriate minimum floodplain management criteria for flood-prone areas. Additionally, FEMA manages a Flood Mitigation Assistance (FMA) grant program using NFIP revenues to further reduce comprehensive flood risk.

10. Currently, the NFIP insures approximately 4.7 million residential and commercial policyholders totaling approximately $1.3 trillion in insurance coverage. The NFIP is not just an insurance program. It also works to reduce the cost of flood damage through identifying, analyzing, and reducing flood risk. By supporting flood hazard reduction grant programs and floodplain management efforts, the NFIP estimates that more than $2.4 billion in flood-related losses are avoided annually.[4]

11. Flood insurance under the NFIP is sold to property owners, including businesses, located in participating NFIP communities through two mechanisms: (1) NFIP Direct; and (2) the "Write Your Own" (WYO) program.

12. NFIP flood insurance is provided pursuant to a contract known as a Standard Flood Insurance Policy (SFIP). "The SFIP is a contract between the policyholder and FEMA that lists the conditions, coverages, exclusions, limitations, and rights of the carrier and insured. The SFIP is issued and maintained by private insurers under an agreement with FEMA. It comes in three forms: the General Property (GP) Form, the Dwelling Form and the Residential Condominium Building Association Policy (RCBAP) Form."[5] Regardless of whether a policyholder purchases an SFIP through NFIP Direct or a WYO company, the contractual terms and conditions are the same and the flood insurance premiums are the same.

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[4] U.S. Congress, Senate Committee on Banking, Housing, and Urban Affairs, Reauthorization of the National Flood Insurance Program, Part II, Statement of David Maurstad, Deputy Associate Administrator for Insurance and Mitigation, Federal Insurance and Mitigation Administration, FEMA, 117th Cong., 1st sess., June 17, 2021, p.2, https://www.banking.senate.gov/imo/media/doc/Maurstad%20Testimony%206-17-21.pdf.

[5] See Floodsmart, "Answers to Questions About the NFIP", p. 8, at https://agents.floodsmart.gov/sites/default/files/fema-answers-to-questions-about-the-NFIP.pdf.

13. Except for certain subsidies, as directed by statute, flood insurance rates in the NFIP are directed to be "based on consideration of the risk involved and accepted actuarial principles,"[6] meaning that the rate is reflective of the true flood risk to the property. Accordingly, the NFIP is required to develop flood insurance premiums that are actuarially sound. According to actuarial principles, an actuarially sound premium is an estimate of the expected value of future costs of the individual risk transfer.[7]

14. The National Flood Insurance Act further requires that NFIP risk premium rates for flood be estimated in adherence with the principles and standards of practice in ratemaking adopted by the American Academy of Actuaries and the Casualty Actuarial Society.[8] The American Academy of Actuaries and Casualty Actuarial Society adopted, and require compliance with, all principles and applicable Actuarial Standards of Practice (ASOPs). As such, premium rates established by FEMA pursuant to 42 U.S.C. § 4014 must adhere to the ASOPs in order to comply with these statutory mandates.[9]

15. With minor exceptions, the NFIA prohibits FEMA from charging less than actuarial rates for properties for which the construction or substantial improvement of which was started after FEMA published the initial Flood Insurance Rate Map (FIRM) for the community or December 31, 1974, whichever is later (referred to as "Post-FIRM properties").[10] One of the minor exceptions to this prohibition are properties mapped into the SFHA for the first time (referred to

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[6] 42 U.S.C. §4014(a)(1).
[7] See Casualty Actuarial Society, "Statement of Principles Regarding Property and Casualty Ratemaking" (May, 1988), at https://www.casact.org/sites/default/files/2021-05/Statement-Of-Principles-Ratemaking.pdf. For a brief explanation of accepted actuarial principles, see National Research Council of the National Academies, Affordability of National Flood Insurance Program Premiums: Report 1, 2015, pp. 36-38, at https://nap.nationalacademies.org/catalog/21709/affordability-of-national-flood-insurance-program-premiums-report-1.
[8] See 42 U.S.C. § 4014 (a)(1)(B)(iv).
[9] References to the ASOPs that apply to FEMA's establishment of premium rates are included in footnotes throughout this document.
[10] 42 U.S.C. § 4015(c).

as "newly mapped in properties").[11] Under the NFIA, FEMA is required to charge these newly mapped in properties a low "preferred risk premium" and then annually increase the rate until the property reaches its actuarial rate.[12]

16. FEMA is authorized to charge "reasonable", less than actuarial rates for certain properties constructed or substantial improved before the initial FIRM or December 31, 1974, whichever is later (referred to as "pre-FIRM properties" and "pre-FIRM rates")[13][14] FEMA refers to premiums that are less than actuarial as "discounts" or "subsidies."

17. The pricing subsidy for pre-FIRM policies is progressively being phased out of the NFIP, as initially required under Section 100205 of the Biggert Waters Flood Insurance Reform Act of 2012 (BW-12), as revised by Sections 3 and 5 of the Homeowner Flood Insurance Affordability Act of 2014 (HFIAA).[15]

18. Under BW-12, the following categories of pre-FIRM properties are required to have their premium increased by 25% per year until they reach actuarial rates: (1) nonprimary residences; (2) nonresidential properties; (3) business properties; (4) properties with severe repetitive loss;[16] (5) properties with substantial cumulative damage;[17] and properties with substantial damage[18] or substantial improvement after July 6, 2012.

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[11] 42 U.S.C. § 4015(i).
[12] Id.
[13] 42 U.S.C. § 4015(c); 42 U.S.C. 4014(a)(2).
[14] Newly mapped in properties are different from Pre-FIRM properties as the newly mapped in properties were constructed after FEMA published the initial FIRM for the communities, but were included in the SFHA for the first time on a FIRM. Notably, the starting PRP premium for newly mapped is not the same as the premium for a Pre-FIRM rated property.
[15] 4 Pub. L. No. 112-141, 126 Stat. 917; and Pub. L. No. 113-89, 128 Stat. 1021-1022, respectively.
[16] Severe repetitive loss properties are those that have incurred four or more separate claim payments exceeding $5,000 each, with a cumulative amount of such payments over $20,000; or at least two separate claim payments with a cumulative total exceeding the value of the property. See 42 U.S.C. §4014(h).
[17] 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).
[18] 44 C.F.R. §59.1 defines "substantial damage" as damage of any origin sustained by a structure whereby the cost

19. FEMA is also required by statute to charge full risk rates on all NFIP flood insurance policies, subject to the statutory limits set in HFIAA, which cap premium increases at 15% for any properties within a risk class, but no more than 18% annually[19] for any property.[20] "FEMA defines full-risk rates as those charged to a group if policies that generate premiums sufficient to pay the group's anticipated losses and expenses."[21]

20. Accordingly, all premiums for pre-FIRM properties will eventually reach actuarially sound rates (i.e., the rate equivalent structures would pay without a subsidy, or a rate that reflects true flood risk), but the pace of that phaseout differs depending on the property type.

21. Nevertheless, while HFIAA did provide for the development of an affordability framework, it did not provide the NFIP with any authority or discretion to address the affordability concerns of policyholders. FEMA must continue to phase out subsidies and move NFIP policies to full risk rates, subject to the applicable caps on premium rate increases.

22. Because BW-12 and HFIAA provided for the phased implementation of full risk rates,[22] FEMA will use this time to continue to work with Congress regarding the authority to develop and implement an affordability program, as it has done since 2012.

23. To help address the issue of affordability, in 2018 FEMA delivered an Affordability

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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.

[19] There are several exceptions to the applicability of this premium rate cap, including policies on certain pre-FIRM subsidized properties, for which FEMA is required by statute to increase premiums by 25 percent, policies on which the coverage has been increased or the deductible has been decreased, policies on structures located in a community that experiences a rating downgrade under the Community Rating System, or policies that have been misrated. See 42. U.S.C. § 4015(e).

[20] See 42 U.S.C. §4015(e)(1).

[21] See U.S. Government Accountability Office Report to Ranking Member, Committee on Financial Services, House of Representatives, "National Flood Insurance Program: Continued Progress Needed to Fully Address Prior GAO Recommendations on Rate-Setting Methods (March 2016), p. 4, at https://www.gao.gov/assets/gao-16-59.pdf.

[22] Assuming all policyholders renew their coverage, FEMA projects it will take a decade (ending 2033-2034) to phase in full risk rates for 90% of NFIP policyholders.

Framework[23] to Congress to help policymakers consider how to provide targeted assistance to existing and potential policyholders. FEMA continues to work with Congress to examine flood insurance affordability options. Moreover, FEMA submitted an NFIP Flood Insurance Means-Tested Assistance legislative proposal in the Administration's FY22, FY23, and FY24 budgets for the NFIP. Absent legislative authority, FEMA is constrained in its ability to offer more affordable premium rates to those who need it.

24. That being said, Risk Rating 2.0 did address affordability for some policyholders. Under Risk Rating 2.0, approximately 23% of policies saw premium decreases totaling $577 million, an average of $627 dollars per policy, upon renewal into Risk Rating 2.0 premium rates. With legacy rates, these policyholders would have continued to see premiums increases.

II. Risk Rating 2.0

A. Implementation of Risk Rating 2.0

25. Beginning in 2021, FEMA began phasing in updated premium rates as part of its Risk Rating 2.0 initiative. The rating practices behind Risk Rating 2.0 are widely used across the insurance industry, yet it took time for the agency adopt this modern rating approach. By leveraging industry best practices, better data, and current technology, FEMA now better ensures that its premium rates are actuarily sound, equitable, and better reflect a property's flood risk.[24]

26. Risk Rating 2.0 uses a multi-model approach to support the development of the new rates, with data from multiple sources including NFIP map data, NFIP policy and claims data, United States Geological Survey 3-D elevation data, National Oceanographic and Atmospheric Administration Sea, Lake, and Overland Surges from Hurricanes (SLOSH) storm surge data, and

[23] See, generally, FEMA, "An Affordability Framework for the National Flood Insurance Program" (April 17, 2018). at https://www.fema.gov/sites/default/files/2020-05/Affordability_april_2018.pdf.
[24] See FEMA Fact Sheet – Understanding Risk Rating 2.0: Equity in Action (February 2022), at https://agents.floodsmart.gov/sites/default/files/fema-Risk-Rating-2.0-Fact-Sheet-2022.pdf.

U.S. Army Corps of Engineers data sets, particularly for areas behind levees.[25]

1. Components of Risk Rating 2.0

27. The Risk Rating 2.0 initiative had 4 key components.

(a) Use of Catastrophe Modeling

28. The use of catastrophe models has been standard industry practice for over 20 years. "A catastrophe model is a computerized process that simulates potential catastrophic events based on historical events. The simulated events generate scenarios of frequency, severity, and location. Catastrophe models incorporate data, technology, scientific research, engineering methods, and statistical analysis to model complex scenarios and events."[26] Notably, catastrophe models allowed FEMA to assess the risk from additional perils that cause flooding, such as pluvial flooding, that were not previously accounted for in the legacy rates. By accounting for the additional perils that cause flooding, FEMA was also able to assess the full cost of risk transfer not previously addressed under the legacy rates.

(b) Increasing the Aggregate Average Annualized Loss (AAL)

29. An output of catastrophe models is the Average Annual Loss, or AAL, which is calculated for the NFIP on an aggregate basis and represents the expected loss amount per year, averaged across all years in the event set, for all policyholders.[27] **Based on the more robust risk evaluation capabilities available through the catastrophe models, FEMA was able to ascertain for itself what many reputable organizations had been telling FEMA for almost two decades – that its premium collection under the legacy method was very far below the**

[25] See Frequently Asked Questions, Risk Rating 2.0: Equity in Action (December 2022), at https://agents.floodsmart.gov/sites/default/files/fema-nfip-risk-rating-2.0-FAQs.pdf.
[26] NAIC Center for Insurance Policy and Research, "Catastrophe Models (Property), (last updated April 3, 2023), at https://content.naic.org/cipr-topics/catastrophe-models-property.
[27] Id.

expected losses the NFIP faces.[28]

30. Based on this more accurate understanding of its risk exposure, as informed by the catastrophe modeling, and in accordance with the Actuarial Standards of Practice, FEMA increased the aggregate AAL. The AAL, in turn, dictates the amount of premiums that must be collected by the program. Accordingly, FEMA needed to increase its overall premium collection and, as such, the premium rates for some policyholders. Prior to Risk Rating 2.0, the AAL was $3.2 billion. Currently, the AAL is 4.1 billion. **The need to increase flood insurance premiums would be necessary regardless of whether Risk Rating 2.0 was implemented, or the outdated legacy rates were continued.**

31. Now that FEMA has a more complete understanding of the flood risks to NFIP-insured properties, FEMA cannot simply ignore the flood risks. To do so would be inconsistent with both its statutory mandate to issue actuarially based premiums and a key purpose of the NFIP -the identification and dissemination of information about flood-prone areas.[29]

(c) Using Better Data to Determine Property-Specific Flood Risk

32. As discussed in more detail below, FEMA is now aware that due to the limited number of data points that FEMA utilized in determining legacy premium rates, there were a number of inequities that existed within the program. **Policyholders with lower value homes were subsidizing policyholders with higher value homes, and some policyholders living in areas subject to lower flood risk were subsidizing those living in areas of higher flood risk.**

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[28] See U.S. Government Accountability Office Testimony Before the Subcommittee on Economic Policy, Committee on Banking, Housing, and Urban Affairs, U.S. Senate, "National Flood Insurance Program: Continued Attention Needed to Address Challenges" (September 18, 2013), at https://www.gao.gov/assets/gao-13-858t.pdf; see also, generally, U.S. Government Accountability Office Letter to Chairman Neugebauer of the Subcommittee on Housing and Insurance, Committee on Financial Services, House of Representatives providing an overview of the key challenges facing the NFIP (April 9, 2014), at https://www.gao.gov/assets/gao-14-297r.pdf.

[29] See 42 U.S.C. § 4002(b)(2) ("The purpose of the act is, therefore, to – … provide for the expeditious identification of, and the dissemination of information concerning, flood-prone areas").

33. According to the Congressional Budget Office (CBO), **policyholders in inland counties were subsidizing policyholders in coastal counties,[30] who were paying the lowest amount of flood insurance premiums in the nation.** Some policyholders with a similar amount of flood risk were paying very different rates, while policyholders with differing levels of flood risk were paying the same amount in premium. Moreover, program subsidies and cross subsidies[31] masked the true nature of the flood risk to which NFIP-insured properties were exposed.

34. With the use of catastrophe models and relevant property-specific data points, such as replacement cost value of the specific property, FEMA is able to more equitably distribute the premiums and address the unfair cross-subsidization in legacy rates. FEMA uses the catastrophe modeling to help determine which additional data points (such as replacement cost value) should be considered to determine a property's flood risk. This allows FEMA to more equitably distribute premiums among NFIP policyholders based on the expected flood losses of the property. Under the old legacy rating, FEMA would have increased premium rates for every policyholder within a broad rate category indefinitely, regardless of whether the actual risk of flood to the property warranted such an increase, thereby continuing to unfairly increase premiums on policyholders with lower value properties.

(d) Implementation of Centralized Rating Engine to Improve User's Access to Information About Their Property-Specific Flood Risk

35. FEMA's Risk Rating Engine is a centralized rating engine[32] that is designed as an interface between Write-Your-Own companies and FEMA so that the Write Your Own and NFIP

[30] See, generally, Congressional Budget Office, "The National Flood Insurance Program: Financial Soundness and Affordability" (September 1, 2017), 1, at https://www.cbo.gov/publication/53028.
[31] Cross-subsidies are the result of charging some policyholders rates that are higher than their expected claims so that other policyholders can pay rates that are lower than their expected claims.
[32] A rating engine is used to calculate the premium associated with a transaction on a quote or policy. A rating engine stores and applies the rating rules, pulls third-party data sources, applies the rating algorithm (the base rates and associated factors) and combines all of these aspects to calculate a premium.

Direct systems can more effectively receive the rating factors, eligibility requirements, and rates used to determine the cost of a flood insurance policy.

36. FEMA's Risk Rating Engine will use information from customer or insurance agent input, RiskMap data, other third-party sources such as the U.S. Army Corp of Engineers and the U.S. Geological Survey, and third-party commercial sources to determine the policy quotes. The NFIP will use the Risk Rating Engine to generate a quote and validate all new and renewal policies for both WYO and NFIP Direct administered policies. The NFIP will also use the Risk Rating Engine during the NFIP policy underwriting process. Additionally, when official requests for flood insurance are submitted, the Risk Rating Engine is utilized to obtain the correct premium as part of the validation process.[33]

37. Risk Rating 2.0 eliminated complex, manual underwriting processes and procedures, such as Submit-for-Rate[34] and the Lowest Floor Guide and replaced them with an easy-to-understand set of questions that allow agents to quickly enter and submit the information needed to rate a structure. Write Your Own companies and NFIP Direct use the Risk Rating Engine to integrate rates and eligibility rules directly into their own company's systems. This integration ensures a more consistent underwriting and rating process between the WYO companies and the NFIP Direct which ensures a more accurate rating process for policyholders.

38. This allows agents to easily and seamlessly rate and create flood insurance policies using the most up-to-date rules. The features of the Risk Rating Engine will provide certainty in building a quote, giving agents and policyholders confidence in the quote created.

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[33] See U.S. Department of Homeland Security, Privacy Impact Assessment for the National Flood Insurance Program (NFIP) PIVOT System, DHS/FEMA/PIA-050, pgs. 36-37, at https://www.dhs.gov/sites/default/files/2022-09/privacy-pia-fema-050-nfippivot-sep2022.pdf.

[34] Certain properties at high flood risk, because of peculiarities in their exposure to flooding, do not lend themselves to preprogrammed rates. Rates for these properties are not included in the Flood Insurance Manual. These risks require an in-depth underwriting analysis and must be submitted to the NFIP or WYO Insurance Company for an individual (specific) rate.

39. FEMA is now able to transparently provide policyholders with both the total premium due to the NFIP, which is subject to the premium capping discussed above, and the full, risk-based actuarial premium for their property. Disclosure of full, risk-based actuarial premiums to policyholders ensures that they understand the true risk of potential flooding to their home.

2. Phasing in of Premium Rates

40. In Phase 1, Risk Rating 2.0 premium rates were applied to new policyholders with policies effective on or after October 1, 2021. For policyholders with policy effective dates between October 1, 2021 and March 31, 2022, legacy premium rates were applied upon renewal of the policy, with policyholders given the option of instead renewing using Risk Rating 2.0 pricing. In Phase 2, Risk Rating 2.0 premium rates were applied to all remaining policyholders renewing on or after April 1, 2022.[35]

41. As of April 1, 2023, FEMA has fully implemented Risk Rating 2.0.[36]

42. FEMA spent over 5 years developing Risk Rating 2.0, and it has already incurred $60-80 million dollars in its development and implementation.

B. Rate Changes Pursuant to Risk Rating 2.0

43. In April, 2021, FEMA undertook a national rate analysis of the rate changes that would occur due to the implementation of Risk Rating 2.0. This National Rate Analysis was made available on FEMA's public-facing website and distributed to its stakeholders.

44. Since the implementation of Risk Rating 2.0, 19% of single-family home policyholders[37] nationwide saw immediate premium decreases, 70% of these policyholders saw

[35] See FEMA, "FEMA Updates Its Flood Insurance Rating Methodology to Deliver More Equitable Pricing" (April 1, 2021), at https://www.fema.gov/press-release/20210401/fema-updates-its-flood-insurance-rating-methodology-deliver-more-equitable.
[36] See FEMA, Risk Rating 2.0: Equity in Action, at https://www.fema.gov/flood-insurance/risk-rating.
[37] Throughout this document, many statistics are provided for single-family home policyholders. Single family

premium increases of $0-$10 per month, and 8% saw premium increases of $10-$20 per month. The remaining 3% of single-family home policyholders saw premium increases of greater than $20 per month.[38] This 3% of policies represent the properties whose rates were far below what was warranted by the actual property-specific risk because their flood insurance rates were being subsidized by policyholders with lower flood risk and the taxpayers (because the total premium collected using legacy rates was insufficient irrespective of these problematic cross-subsidies).

C. Rate Changes by the Numbers

45. One critical difference in legacy premium rates and rates issued after implementation of Risk Rating 2.0 is that **with legacy rates, 100% of policyholders would have experienced an increase in premium** (assuming no changes in coverage levels or deductibles), there are significant numbers of policyholders that received premium decreases because of Risk Rating 2.0.

46. **Nationwide, policyholders saw annual premium decreases totaling approximately $577 million upon their first renewal under Risk Rating 2.0,** and those decreases will continue to be reflected in their flood premium rates year after year.

47. Policyholders in the Plaintiff States experienced substantial premium decreases as well. The first column of table below shows the percentage of single-family home policyholders within the 10 Plaintiff States and nationwide that saw decreases in premium upon their first renewal under Risk Rating 2.0. For policyholders that saw an immediate decrease, their premiums will generally remain steady.[39] The percentage of single-family home policyholders receiving premium

homes make up approximately 70% of the NFIP's total policies in force and represent the experience of a typical NFIP customer. The NFIP also insures other structures through policies such as the Residential Condominium Building Association Policy (RCBAP). In general, RCBAPs have greater coverage limits, and therefore premiums, than single family home policies written by the NFIP.

[38] The percentages provided on FEMA's website are projections, estimated prior to implementation of Risk Rating 2.0; these percentages are based on actual numbers, once all policyholders had transitioned to Risk Rating 2.0.

[39] Absent any changes to coverage or deductible levels or future rate reviews. Rate updates are typically conducted annually and usually result in minor changes to prices for most policies.

decreases ranges from 12% of policyholders in Mississippi to 42% of policyholders in Virginia.

	Percent Decreased	Percent Increased Between $0-10 per month	Percent Increased Between $10-20 per month	Percent Increased more than $20 per month
Countrywide	19%	70%	8%	3%
FL	16%	67%	11%	6%
ID	20%	69%	9%	3%
KY	24%	58%	13%	5%
LA	16%	74%	7%	2%
MS	12%	78%	8%	2%
MT	33%	60%	5%	2%
ND	37%	58%	4%	1%
SC	21%	72%	5%	2%
TX	13%	82%	4%	1%
VA	42%	51%	5%	1%

48. The second, third, and fourth columns of the table show the percentage of single-family home policyholders within each of the 10 Plaintiff States and nationwide that saw increases in premium upon their first renewal under Risk Rating 2.0. For some policyholders who saw a premium increase, they may already be paying a full risk-based premium, which means they generally will not see any further increases in premium.[40]

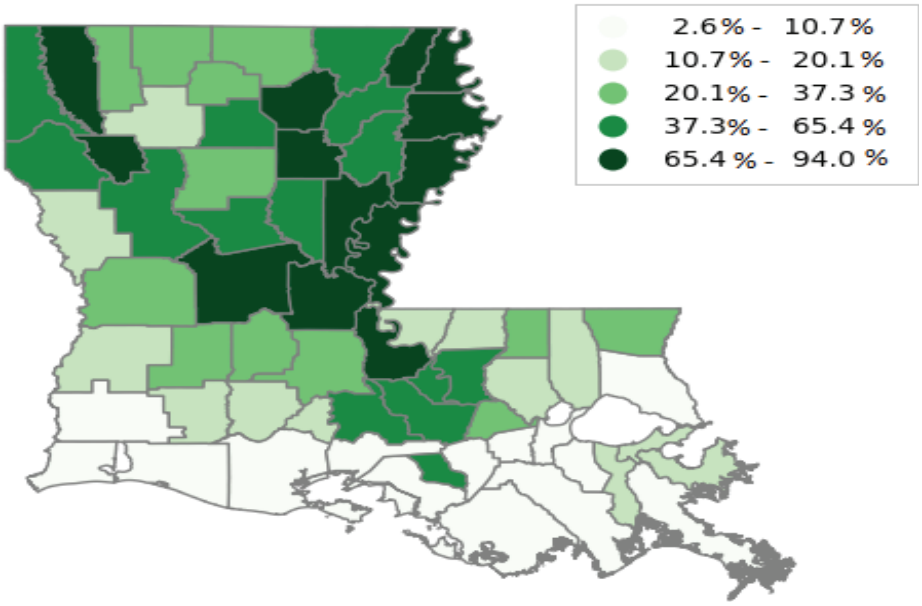
49. Other policyholders are paying lower premiums that are discounted by law. When a policyholder's current premium is below their risk-based premium, their premium will increase towards the full rate. This increase is called a "glide path." By law, rates generally cannot increase by more than 18% per year for most policyholders.

50. It is also important to note that the impacts of Risk Rating 2.0 differ based on how underpriced the policies were prior to the implementation of Risk Rating 2.0. The graphic below shows the percentage of all policies within each parish of Louisiana that saw decreases in premium upon their first renewal under Risk Rating 2.0. In the historically underpriced coastal parishes in southern Louisiana, very few policyholders saw premium decreases.

51. Conversely, in the non-coastal parishes of northern Louisiana, legacy premium rates

[40] Absent any changes to coverage or deductible levels or future rate reviews.

were not as severely underpriced as the policies in the coastal parishes in southern Louisiana. Therefore, **a substantial number of policyholders in northern Louisiana parishes are seeing premium decreases**. For example, **in Tensas Parish, nearly all policies (94%) saw an immediate decrease in premiu**ms upon their first renewal under Risk Rating 2.0. A reversion to legacy rates would mean an increase in premium for all 94% of NFIP policies in that parish. Similarly, **85% of policies in Bossier Parish and 85% of policies in Catahoula Parish also saw immediate premium decreases under Risk Rating 2.0**, which would not have occurred with legacy pricing. Using legacy rates, all of these policies would have seen increases.[41]



52. Another key difference in legacy premium rates and rates issued after implementation of Risk Rating 2.0 is that with legacy rates, policyholders would have continued to see annual premium increases indefinitely, sometimes quite substantial annual premium increases.

53. For example, under the legacy rates, policies required by statute to receive 25% premium increases each year - such as severe repetitive loss properties and non-primary residences (including businesses) - would have continued to see these substantial increases year after year.

[41] This assertion assumes that the policyholders maintain the same level of coverage and deductible levels.

54. Under Risk Rating 2.0, 96% of contracts in force[42] for single-family policyholders subject to 25% premium rate increases, nationwide, are already at full risk rates, meaning they will no longer see arbitrary 25% annual premium increases, as they did with the legacy rates. Instead, under Risk Rating 2.0, these policyholders pay, or will eventually pay, for their own flood risk, and no more than that. As indicated in the tables below, almost half of these are in the Plaintiff States. When you consider all contracts in force subject to 25% premium rates increases nationwide, 93% are already at full risk rates.

Single Family Homes			
State	*% of CIF already paying full risk rates that were subject to 25% annual increases with legacy rates*	*# of CIF already paying full risk rates that would have been subject to 25% annual increases with legacy rates*	*Total # of Pre-FIRM Severe Repetitive Loss (SRL) or Pre-FIRM Non-Primary Residences CIF*
FL	89%	3,935	4,403
ID	100%	20	20
KY	92%	404	438
LA	97%	2,241	2,312
MS	97%	371	381
MT	97%	36	37
ND	96%	22	23
SC	96%	685	712
TX	97%	2,479	2,548
VA	99%	510	517
All States	96%	24,286	25,346

[42] Policies can either be on individual properties or for units in multiple ownership such as condominiums and cooperatives. Contracts generally represent individual buildings (i.e., all of the units in condominium building insured may be insured under a single contract).

All Contracts			
State	*% of CIF already paying full risk rates that were subject to 25% annual increases with legacy rates*	*# of CIF already paying full risk rates that would have been subject to 25% annual increases with legacy rates*	*Total # of Pre-FIRM Severe Repetitive Loss (SRL) or Pre-FIRM Non-Primary Residences CIF*
FL	88%	8,439	9,592
ID	98%	45	46
KY	92%	725	792
LA	96%	3,179	3,313
MS	96%	594	616
MT	99%	69	70
ND	91%	42	46
SC	93%	1,105	1,182
TX	96%	3,667	3,828
VA	95%	941	988
All States	93%	43,841	47,164

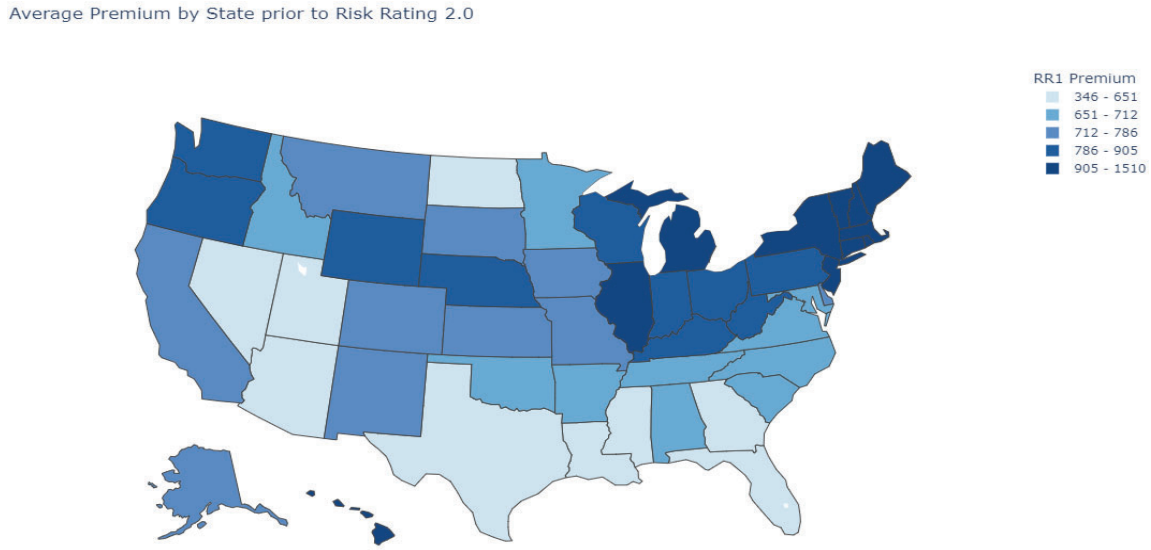
D. Correcting Geographical Pricing Imbalance

55. Under the NFIA, FEMA is charged with "distributing burdens equitably among those who will be protected by flood insurance and the general public."[43] But legacy rating resulted in an inequitable program that put the cost of flood risk in a few coastal states on policyholders in other states and the taxpayers. Risk Rating 2.0 will correct this inequity by phasing in premium rate changes and charging actuarial rates for policies that reflect the full risk of flood to a property.

56. To align premiums with flood risk, premium increases, on average, will be greater in some states than in others. Policies requiring the highest premium increases under Risk Rating 2.0 are also those that were the most heavily underpriced with legacy rates. Coastal states, including Louisiana, Florida, Mississippi, and Texas have higher premium increases, but they also had the lowest premiums in the country with legacy pricing.

[43] 42 U.S.C. § 4001(d)(2).

57. As indicated in the figure below, many of the states with the lowest premiums[44] are those with higher flood risk, further evidencing the historical underpricing in these states.



58. **Nearly every Gulf Coast state, including Louisiana, Florida, Mississippi, and Texas, is in the group of states with the lowest average premiums as of May 31, 2020**.

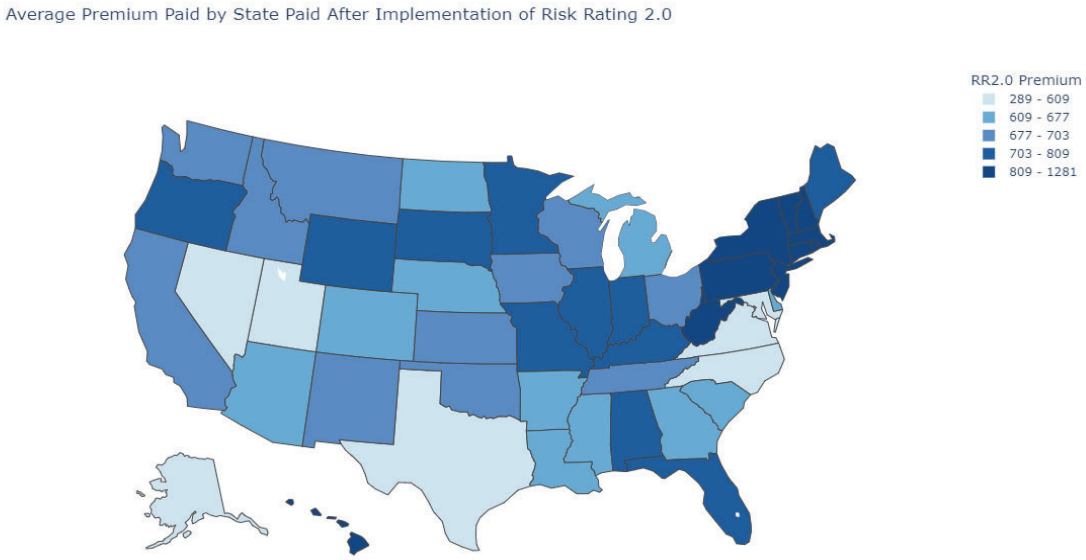
59. **However, Louisiana, Florida, Mississippi, and Texas also have high risk of hurricane and coastal flooding, and they have historically accounted for a majority of NFIP claim payments**. As the Louisiana Department of Insurance stated in its FAQs about flood insurance, "Louisiana is by far and away the largest recipient of funds from the National Flood Insurance Program (NFIP)."[45]

60. Additionally, under legacy pricing, Idaho, South Carolina, and Virginia also had lower average premiums than the majority of states, although not as low as Louisiana.

61. The two maps below show average premiums for single-family homes insured by the

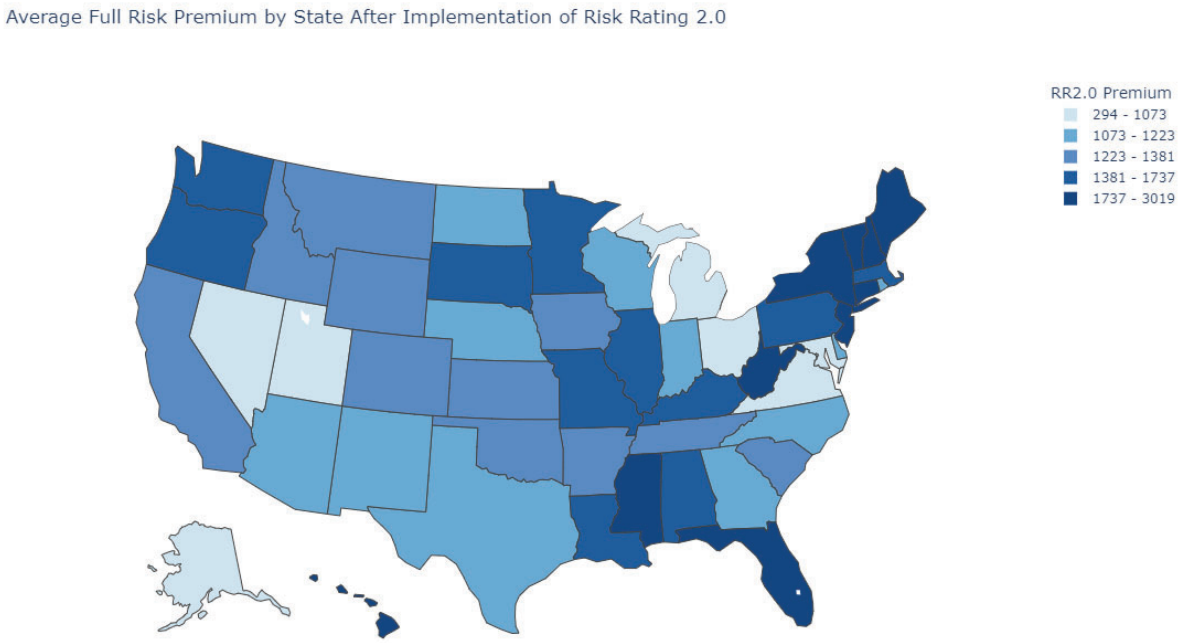
[44] Single-family home policies in-force as of May 31, 2020. This exhibit excludes fees, surcharges, and assessments.
[45] See Louisiana Department of Flood Insurance, "Frequently Asked Questions About Flood Insurance", at https://www.ldi.la.gov/docs/default-source/documents/faq-flood-insurance.pdf?sfvrsn=cfe775526.

NFIP[46] after implementation of Risk Rating 2.0 was completed. The first map shows average premiums actually paid by policyholders.



62. The following map shows average full-risk premiums for single-family homes. Some policyholders are already paying a full-risk premium. However, when a policyholder's current premium rate is below their risk-based premium rate, their premium will increase towards the full rate gradually. By law, rates cannot increase by more than 18% per year for most policyholders.

[46] Single-family home policies in-force as of April 1, 2023. Data pulled June 2023. This exhibit excludes fees, surcharges, and assessments from the premium displayed.



63. **With higher premium increases in Gulf Coast states where flood risk is higher and most (62.4%) of the NFIP's policies are concentrated, Risk Rating 2.0 is correcting a geographical pricing imbalance that has, in the past, placed the cost of the flood risk in Louisiana, Mississippi, Florida, and other coastal states on policyholders in states with much lower flood risk.**

64. Furthermore, in addressing this pricing imbalance, Risk Rating 2.0 is also encouraging more property owners in non-coastal areas to protect themselves from the risk of flood. Combined with a lack of alternative insurance options in the private flood insurance market, the artificially high premiums charged to non-coastal policyholders using legacy rates may have unintentionally deterred Americans with lower flood risk from purchasing flood insurance. Although these individuals are at a lower risk of flooding, we know that where it can rain, it can flood. By not purchasing flood insurance, communities are less prepared to recover financially after a disaster.

III. Driving Forces Behind Risk Rating 2.0

65. The NFIP's legacy rating approach was developed in the 1970s. While the NFIP's legacy rating was developed in accordance with accepted actuarially sound principles at the time, it has not fundamentally changed since the 1970s.

66. Over the years, technology has evolved and so has FEMA's understanding of flood risk. Pursuant to Risk Rating 2.0, FEMA now calculates the expected flood losses more accurately and thus distributes premium more equitably across all NFIP policyholders. The loss estimates are based on a more comprehensive set of risk factors than were used for legacy pricing, including data points such as the replacement cost value of the insured property and the distance to flooding sources, among others. It also accounts for more causes of flooding than the old legacy rates, such as pluvial flooding (from rainfall).

A. GAO's Placement of NFIP on High-Risk List Due to Failure to Ensure Its Rate Setting Methods Result in Full Risk Rates that Reflect Risk of Flood Loss

67. Although the Risk Rating 2.0 initiative was more formally initiated in 2017, the Risk Rating 2.0 effort was the culmination of efforts to identify and address issues with the 1970s legacy rating that began in 2008 in response to Government Accountability Office (GAO) recommendation 09-12. Hurricane Katrina, Hurricane Sandy, Hurricane Harvey (and other events) exposed weaknesses in the old 1970s legacy rating, prompting the GAO to place FEMA on the High-Risk List in March 2006.

68. In a report entitled "Flood Insurance: FEMA's Rate-Setting Process Warrants Attention" (Oct. 31, 2008), GAO made the following finding:

> FEMA's method for setting its full-risk rates may not ensure that the rates accurately reflect the actual risk of flood damage. The NFIP model combines estimated flood risk with expected flood damage, but a number of factors may affect the accuracy of the rates the model generates.

> First, some data inputs are outdated or inaccurate. FEMA relies on flood probabilities from the 1980s and damage estimates that do not fully reflect recent NFIP damage experience. Moreover, while FEMA has made updating its flood maps a priority, most of the maps used in rate setting have not yet been updated.
>
> Second, FEMA does not require all properties remapped into higher-risk areas to pay rates based on the new designation. This policy, known as grandfathering, erodes NFIP's ability to charge rates that reflect the risk of flooding. The policy is intended to increase participation, but FEMA does not track the number of grandfathered properties and cannot determine their financial impact on the program.
>
> Third, FEMA uses a nationwide rating system that combines flood zones across many geographic areas, so individual policies do not always reflect topographical features that affect flood risk. In fact, some patterns in historical claims and premium data suggest that NFIP's full-risk rates may not always reflect actual flood risk. Collectively, these factors increase the risk that premiums collected on full-risk policies may be insufficient to cover future losses, adding to concerns about NFIP's financial stability.
>
> FEMA's rate-setting process for subsidized properties depends in part on the accuracy of the full-risk rates, raising concerns about how these rates are calculated as well. . . . Currently, the annual amount that NFIP collects in both full-risk and subsidized premiums is not enough to cover its operating costs, claim losses, and principal and interest payments to the Department of the Treasury, thereby exposing the federal government and ultimately taxpayers to ever-greater financial risks, especially in years of catastrophic flooding.

69. The GAO recommended "the Secretary of the Department of Homeland Security to direct FEMA to take steps to ensure that its rate-setting methods and the data it uses to set rates results in the full-risk premium rates that accurately reflect the risk of losses from flooding."[47]

70. In a 2017 GAO Report,[48] GAO made the following finding:

> **NFIP premiums do not reflect the full risk of loss, which increases the federal fiscal exposure created by the program, obscures that exposure from Congress and taxpayers, contributes to policyholder misperception of flood risk (they may not fully understand the risk of flooding), and**

[47] See U.S. Government Accountability Office, "FEMA's Rate-Setting Process Warrants Attention" (October, 2008).
[48] See U.S. Government Accountability Office, "Flood Insurance: Comprehensive Reform Could Improve Solvency and Enhance Resilience" (April 27, 2017).

> **discourages private insurers from selling flood insurance (they cannot compete on rates).** Eliminating rate subsidies by requiring all rates to reflect the full risk of loss would address an underlying cause of NFIP's debt and minimize federal fiscal exposure. It also would improve policyholder understanding of flood risk and encourage private-sector involvement.[49]

71. Based on this finding, the GAO recommended the implementation of an updated rating approach.[50]

B. NRC's Identification of Numerous Flaws in NFIP's Rating Approach that Resulted in Unfair Cross-Subsidies and Inaccurate Characterizations of Flood Risk

72. In a 2013 article, the National Research Council of the National Academies (NRC) identified a number of flaws in the NFIP's rating approach that resulted in program inequities.[51]

1. Structures Next to Each Other Exposed to Same Hazard, but Charged Substantially Different Premium Rates

73. The NRC discussed the coverage disparities and outcomes for properties located within feet of each other, but on either side of a Special Flood Hazard Area boundary.[52]

> Two houses next door to each other can have one just above the one percent annual chance flood level (and have no mandatory flood insurance mandate, and a low-priced policy if the property owners do decide to buy) while the house next door is just inside the 100-year floodplain and is charged much higher rates (and is required to buy insurance). In reality, both houses are exposed to essentially a similar hazard, but are treated differently.[53]

74. In addition to creating an unfair pricing dynamic, failure to include sufficient rating variables, to the extent allowed by available data, is also contrary to Actuarial Standard of Practice

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[49] Id. (emphasis added).
[50] Additionally, in 2011, the Property Casualty Insurers Association of America published an analysis that identified issues with the NFIP legacy rates and the factors that contributed to below-market rates, increasing program indebtedness, and discouraging private sector participation in the insurance market. See "True Market-Risk Rates for Flood Insurance," Property and Casualty Insurers Association of America, Chicago, June 2011, pp. 1–13, at https://web.archive.org/web/20170822163908/https:/www.pciaa.net/pciwebsite/common/page/attachment/13821
[51] National Research Council. 2013. Levees and the National Flood Insurance Program: Improving Policies and Practices, Washington, DC: The National Academies Press, at https://doi.org/10.17226/18309; see also, generally, National Research Council, "Risk Analysis and Uncertainty in Flood Damage Reduction Studies" (2000).
[52] Id. at 79-80.
[53] Id.

(ASOP) 12.[54] Rating two houses that are next to each other and have the same risk with much different premiums is inconsistent with ASOP 12. According to ASOP 12, it is unfair and not actuarially sound. Risk Rating 2.0 accounts for a wider range of flooding variables that are associated with flooding losses.

75. Additionally, the abrupt change in rates and requirements that corresponds to being inside or outside the SFHA, as specified by the FEMA flood map, has created problems as new maps are produced that change a community or set of properties from a moderate-risk zone to a high-risk zone.[55] The remapping process can be very contentious in such cases, and FEMA and communities spend a lot of time and money to litigate the boundaries of the SFHA because of the financial repercussions that a difference in a few feet can make. Because of Risk Rating 2.0, the NFIP premium rates are based on a property's specific flood risk so a structure's placement in the SFHA does not necessarily mean that its flood insurance premiums will substantially increase or decrease based on whether the property is mapped inside or outside the SFHA.[56]

2. NRC Found that By Using Only a Few Zones to Classify Flood Risk and Tying Premium Rates to Those Zones, FEMA Failed to Capture the Significant Variation in Flood Risk Within a Zone and in the Same Zone Throughout the Country

76. According to the NRC, FEMA has not identified enough flood zones to reflect the variability of flood risk within a particular flood zone and between the same type of zone in

[54] Actuarial Standard of Practice (ASOP) 12 states:

> Rates within a risk classification system would be considered equitable if differences in rates reflect material differences in expected cost for risk characteristics. In the context of rates, the word fair is often used in place of the word equitable.

See Actuarial Standard of Practice No. 12 Risk Classification, p. 3, at http://www.actuarialstandardsboard.org/wp-content/uploads/2014/07/asop012_101.pdf. Full text of the ASOPs can be found on the ASB website here: http://www.actuarialstandardsboard.org/standards-of-practice/.

[55] Id.

[56] Notably, FEMA's flood map data still informs the catastrophe modeling used in the development of rates under Risk Rating 2.0.

different geographic areas. This led to unacceptable variations in the losses, and thus the risks, within zones.[57]

77. "FEMA uses a nationwide rating system that combines flood zones across many geographic areas. Individual policies do not necessarily reflect topographical features that affect flood risk. FEMA calculates expected losses for groups of structures that are similar in flood risk and key structural aspects and assigns the same rate to all policies in a group. For example, two properties that are rated as the same NFIP risk (e.g., both are one-story, single-family dwellings with no basement, in the same flood zone, and elevated the same number of feet above the BFE), are charged the same rate per $100 of insurance, although they may be located in different states with differing flood histories or rest on different topography, such as a shallow floodplain as opposed to a steep river valley. In addition, two properties in the same flood zone are charged the same rate, regardless of their location within the zone."[58]

78. The NRC noted that because of the small number of zones, there can be substantial internal variation in risk and losses within the zone that is not reflected in the premium rates since all similar properties are charged the same rate within the same zone classification (e.g., Zone A, Zone X, V Zone, etc.).[59] Structures having similar characteristics located at different locations in a particular designated flood zone are all given the same NFIP insurance rate nationwide even though it has been shown that there can be substantial risk differences across the zone within a given geographical area.[60]

79. Even more expected loss variation exists across similar structures in the same zone

[57] Id.
[58] See Congressional Research Service. "National Flood Insurance Program: The Current Rating Structure and Risk Rating 2.0 (April 4, 2022), p. 2, at https://sgp.fas.org/crs/homesec/R45999.pdf.
[59] There are minor variations based on elevation relative to the Base Flood Elevation within the AE and VE zones.
[60] Id. at 81.

classification between counties within the same state, yet the NFIP would charge all of the structures the same rate.[61] Differences in expected loss ratios[62] for policies within the same NFIP rating zones across states can also vary greatly.[63] An expected loss ratio compares premium to expected losses for a group of policyholders. Private insurance companies use this metric to measure profits and losses. If the expected loss ratio is significantly different between different subsets of policyholders, this means that the rating methodology is undercharging some policyholders, thereby losing money, and overcharging other policyholders to compensate for the loss in revenue from the first group. Differences in expected loss ratios, like those that existed under the legacy rates, illustrate the pricing inequity that results from a rating approach that relies so heavily on flood zone.[64]

80. By forming a nationwide zone classification, the old legacy rating oversimplified the rating structure, resulting in rates that are not property-specific and risk-based. Instead, similar premium rates were charged to properties with dissimilar expected flood losses.[65] This resulted in cross-subsidization between properties with different risk profiles that are located in the same flood zone. Additionally, the dramatic rate differences that arose from moving from zone to zone between the few rating zones did not recognize the continuous nature of the flood risk.[66]

81. The NRC recommended moving away from a rating approach that assumed a uniform level of flood hazard across the entire country based on a few zones to a rating approach that better

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[61] Id.
[62] A loss ratio is the ratio of total claims to total premiums. When we sum up expected claims and divide by the total premium those policyholders paid, that ratio should be approximately the same, no matter what subset of policyholders you are considering.
[63] See U.S. Government Accountability Office, "FEMA's Rate-Setting Process Warrants Attention" (October, 2008).
[64] Please note that loss ratios may still differ between groups under an actuarily sound rating plan as a result of factors, such as the net cost of reinsurance, concentration risk, or fixed expenses.
[65] National Research Council. 2013. Levees and the National Flood Insurance Program: Improving Policies and Practices, Washington, DC: The National Academies Press, p. 81 at https://doi.org/10.17226/18309.
[66] Id.

captured the differing levels of risk across the entire country.[67]

> Even within the full-risk class the actuarial accuracy of the pricing within the program could be improved by incorporating more exact and detailed probability-of-inundation calculations instead of using a small number of rating zones and assuming the flood hazard to be uniform across the entire zone across the entire country. Better estimates of loss at stated water inundation levels are also possible utilizing more detailed economic damage models that are now available (and used in the private risk market). The use of more detailed and better probability models and better damage estimates will result in a more risk-based premium at the structure level.

82. In another study, the NRC also recommended use of the better data that is now available and utilized by the private market to capture the differing levels of risk across the entire country.

> Modern technologies, including analysis tools and improved data collection and management capabilities, enable the development and use of comprehensive risk assessment methods, which could improve NFIP estimates of flood loss.[68]

83. As described in more detail below, the private risk market has widely adopted the use of catastrophe models to measure catastrophic risk. Through Risk Rating 2.0, the NFIP has modernized its rating to align with standard industry practice.

84. The NRC specifically took issue with FFEMA's binary approach to rating the risks to properties behind levees. The NRC noted a levee is only recognized for its flood reduction benefits "if it is 'accredited,' meaning that the levee system has been determined to meet minimum design, operation, and maintenance standards that are consistent with a level of protection associated with the ability to pass the one percent annual chance flood, as specified in section 65.10."[69] The NRC also noted that a non-accredited levee "is not considered in the analysis used to quantify flood risk, even it though it provides some (potentially considerable) protection against flooding."[70]

85. As discussed in more detail below, Risk Rating 2.0 abandons the binary approach of

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[67] Id. at 79-80.
[68] See National Research Council, "Tying Flood Insurance to Flood Risk for Low-Lying Structures in the Floodplain (2015), at https://nap.nationalacademies.org/read/21720/chapter/2#2.
[69] Id. at 36.
[70] Id.

the 1970s legacy rating methodology and utilizes the more comprehensive data available from the National Levee Database and the Levee Screening Tool in its catastrophe modeling to establish premium rates that better reflect the flood risk protection provided by levees.[71]

86. In this publication, it was acknowledged that the legacy rating as a whole led to "an incomplete description of the flood hazard in many areas," a problem "not unknown to FEMA or relevant stakeholders, including policymakers."[72] The NRC advocated for a "more modern approach to flood risk analysis" including employing a "modern risk-based analysis for dealing with areas behind levees." Risk Rating 2.0 is just such a modern risk-based analysis.

C. TMAC Finds that Legacy Rating Produced Premiums That Do Not Reflect Structure-Specific Risk Despite the Fact the Technology is Available to Assess This Risk

87. In its December 2016 annual report, the Technical Mapping Advisory Council (TMAC)[73] found that the 1970s legacy rating produced flood insurance premiums that "do not reflect structure-based risk." The TMAC recommended that FEMA transition to "structure-specific flood frequency determination[s] and associated flood elevations.[74] TMAC concluded that the technology already existed, in 2016, "to estimate the likelihood of floods of different water elevation and the resulting damage to the individual structure" enabling a more accurate determination of a property's average annualized loss, which forms the basis for flood risk-rated

[71] The NFIP defines a levee in Title 44, Chapter 1, 59.1 of the Section Code of Federal Regulations (44 C.F.R. § 59.1) as "a man-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water in order to reduce risk from temporary flooding." The NFIP regulations define a levee system as "a flood protection system which consists of a levee, or levees, and associated structures, such as closure and drainage devices, which are constructed and operated in accordance with sound engineering practices." For the purposes of this Declaration, levees and levee systems are referred to as "levees."

[72] Id. at 38.

[73] The Technical Mapping Advisory Council (TMAC) is a federal advisory committee established to review and make recommendations to FEMA on matters related to the NFIP's flood mapping program.

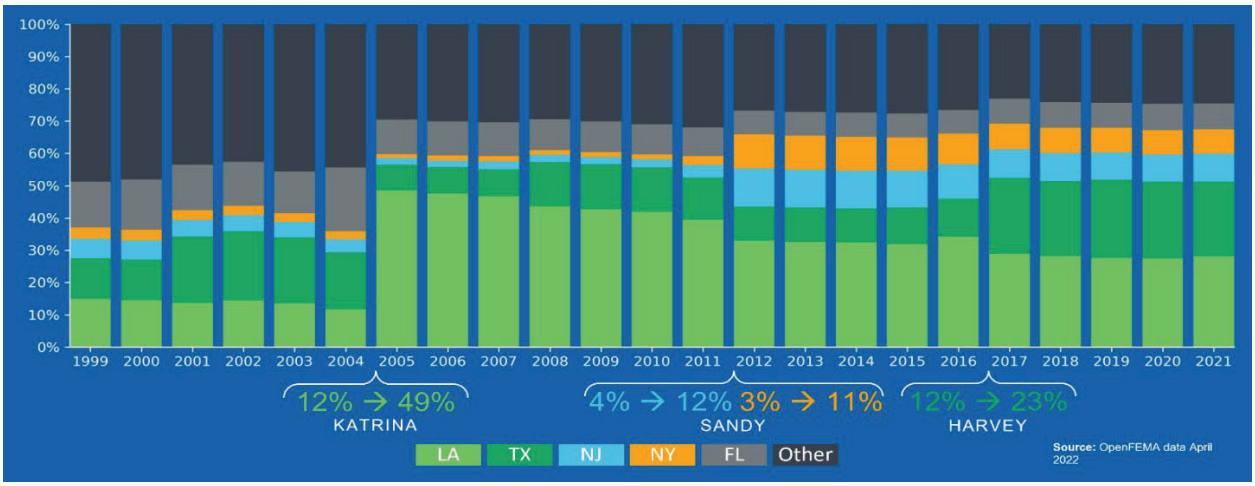
[74] Technical Mapping Advisory Council Annual Report, December 2016.
https://www.fema.gov/sites/default/files/documents/fema_tmac_2016_annual_report.pdf

insurance premiums.[75]

D. Development of Catastrophe Models

88. Catastrophic risk, such as for flood, cannot be estimated well directly from historical losses. Figure 2, below, shows FEMA's cumulative losses from 1980. Repeatedly, a single event has materially altered the cumulative distribution of losses among the states. Prior to Katrina, 12% of the NFIP's cumulative losses were in Louisiana. After Katrina, 49% were. Before Sandy, 3% of the NFIP's cumulative losses were in New York and 4% in New Jersey. After Sandy, 11% were in New York and 12% in New Jersey. Before Harvey, 12% of the NFIP's cumulative losses were in Texas. After Harvey, 23% were. The historical distribution of losses among the states is an unreliable guide to the future distribution of losses among the states.

89. Prior to Katrina, 12% of the NFIP's cumulative losses were in Louisiana. After Katrina, 49% were. Before Sandy, 3% of the NFIP's cumulative losses were in New York and 4% in New Jersey. After Sandy, 11% were in New York and 12% in New Jersey. Before Harvey, 12% of the NFIP's cumulative losses were in Texas. After Harvey, 23% were. The historical distribution of losses among the states is an unreliable guide to the future distribution of losses among the states.



[75] Id.

90. Prior to the development of catastrophe models, there was not a good solution to this problem. After Hurricane Andrew and the Northridge Earthquake (1994), there was a recognition in the insurance industry that setting rates for catastrophic perils based on historical experience alone was not actuarially sound. The homeowner insurance industry realized it was underpricing catastrophic risk and that catastrophe models are an essential tool for pricing and monitoring risk. This accelerated the development of catastrophe modeling and actuarial approaches that reflect the full range of possible events, not a single event, and led to the widespread adoption of catastrophe models. Nearly all states now permit their use for catastrophic perils, such as hurricanes, for ratemaking.[76]

91. One exception is California, which does not currently allow the use of catastrophe models for setting rates for the wildfire peril and does not allow insurers to charge for the net cost of reinsurance. Because of these limitations, the California Homeowners market is now in crisis. Major companies, such as State Farm and Allstate, no longer write new Homeowners insurance business in California. As a result, there is both an availability and an affordability crisis. For catastrophic perils, the use of catastrophe models is essential for a stable insurance market.

92. Although catastrophe models for storm surge have existed since at least the 1990s, inland flood catastrophe models were developed more recently. The inland flood catastrophe models FEMA relied on in developing Risk Rating 2.0 premium rates were not available until the 2010s. As such, FEMA could not have used them prior to that point. Historical data alone is

[76] Louisiana permits the use of catastrophe models, and indeed Louisiana has approved private flood insurance rate filings that rely on catastrophe modeling. See, e.g., rate filings related to SERFF Tracking Numbers MAPP-133580819 (approved March 2023) and MAPP-132977178 (approved Jan 2022), which are publicly available at https://filingaccess.serff.com/sfa/home/LA.

insufficient to make projections for future catastrophic losses.[77] The use of catastrophe modeling, therefore, greatly improves the accuracy of actuarial rates for flood insurance. The American Academy of Actuaries,[78] among others, has agreed with this position.

E. Biggert Waters Flood Insurance Reform Act of 2012 and Homeowner Flood Insurance Affordability Act of 2014

93. Concerns regarding long-term NFIP fiscal soundness led to Congress's passage of the Biggert–Waters Flood Insurance Reform Act of 2012 (BW-12). "A goal of the legislation was to transition toward an insurance program whose premiums reflected expected flood losses on all insured properties; all NFIP policies would have risk-based premiums. To that end, BW-12 directed FEMA to review and report to Congress on reforms to set NFIP risk-based rates that would better reflect possible claims."[79]

94. With the passage of BW-12 , the NFIA requires FEMA to increase premiums on Pre-FIRM buildings by the following prescribed percentages: twenty five percent (25%) a year until the premiums reach an actuarial rate for all Pre-FIRM non-primary residences, severe repetitive loss properties, properties that have received flood claim payments in a cumulative amount that equals or exceeds the fair market value of the building, substantially-damaged or substantially improved properties, and business properties.[80]

95. However, in response to concerns about the affordability of NFIP flood insurance once the program transitions to full risk rates, Congress passed the Homeowner Flood Insurance Affordability Act of 2014 (HFIAA), which set a cap of 15% for a particular class, but no more

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[77] This was reflected under legacy rating as well, which relied on hydrologic models.
[78] See American Academy of Actuaries, "Use of Catastrophe Model Output" (Catastrophe Model Monograph) (July 2018), at https://www.actuary.org/sites/default/files/files/publications/Catastrophe_Modeling_Monograph_07.25.2018.pdf.
[79] See National Academies of Sciences, Engineering, and Medicine. 2015. Affordability of National Flood Insurance Program Premiums: Report 1. Washington, DC: The National Academies Press. https://doi.org/10.17226/21709.
[80] 42 U.S.C. §§ 4015(e)(4), 4014(a)(2)(A)-(E).

than 18% on premium increases for most policies.[81] The NFIA, as amended by HFIAA, also requires FEMA to increase premiums by not less than five percent (5%) a year for all other Pre-FIRM primary residences.[82]Additionally, Pre-FIRM substantially damaged and improved properties and newly mapped properties are increased no more than 15% annually.

96. Subject to the statutory caps on annual premium increases, FEMA is required to move toward an insurance program with NFIP risk-based premiums that better reflect the risk involved and accepted actuarial principles.[83]

F. NFIP Debt/CBO Report

97. Over the last 50 years, FEMA has collected $60 billion in NFIP premiums, but has paid $96 billion in costs (including losses, operating expenses, and interest).[84] To state that another way, the NFIP's cumulative costs have exceeded what its policyholders have been paying in premiums by approximately 60%. Taxpayers and policyholders are adversely impacted when the program does not generate the AAL needed to pay claims. This is particularly true when the taxpayers have to fund the program debt that is cancelled, such as the $16 billion in program debt that was cancelled in October 2017.[85]

98. In September 2017, the CBO released a report on the fiscal soundness of the NFIP. In this report, the CBO estimated that overall, considering all expenditures and premium income, the NFIP had an expected one-year shortfall of $1.4 billion.[86]

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[81] 42 U.S.C. § 4015(e)(1).
[82] 42 U.S.C. § 4015(e)(2).
[83] Id.
[84] See FEMA, "FEMA Updates Its Flood Insurance Rating Methodology to Deliver More Equitable Pricing" (April 1, 2021) at https://www.fema.gov/press-release/20210401/fema-updates-its-flood-insurance-rating-methodology-deliver-more-equitable.
[85] FEMA, *The Watermark: Fiscal Year 2018, First Quarter,* Vol. 1(Sept. 30, 2022), at https://www.fema.gov/sites/default/files/2020-05/FIMA_Watermark_FY18_Q1.pdf.
[86] See Congressional Budget Office, "The National Flood Insurance Program: Financial Soundness and Affordability" (September 1, 2017), 1, at https://www.cbo.gov/publication/53028.

99. In particular, the CBO largely attributed the overall shortfall of $1.4 billion to premiums falling short of expected costs in coastal counties, which constitute roughly 10 percent of all counties with NFIP policies but account for three-quarters of all NFIP policies nationwide.[87] According to the CBO, although some coastal counties generated surpluses of premiums over expected costs and some inland counties had shortfalls, the net shortfall measured over all coastal counties is $1.5 billion, whereas the net surplus measured over all inland counties is $200 million.[88]

100. In its report, the CBO made 3 recommendations for changes to the NFIP:

- *Improve solvency* by increasing premium income from policyholders in general, reducing the use of discounted rates, or increasing the share of costs borne by certain categories of policyholders or by taxpayers generally;
- *Better align premiums with risks* by reducing the use of subsidies, including discounted rates and cross-subsidies (**in which some policyholders are charged rates that are higher than their expected claims so that other policyholders can pay rates that are lower than their expected claims**), or by adjusting premiums to better reflect underlying risk factors; or
- *Keep costs low for some policyholders* (perhaps while raising them for others) by targeting subsidies to low-income policyholders, shifting costs to taxpayers, or adjusting premiums to reflect the value of insured properties.[89]

101. While FEMA is unable to fully implement the third recommendation because it lacks the statutory authority to make changes to address the affordability of NFIP polices[90], FEMA is currently fulfilling the first two CBO recommendations with its implementation of Risk Rating 2.0. The CBO laid out a road map to financial soundness of the NFIP, and the implementation of the Risk Rating 2.0 is the realization of that.

G. Risk Rating 2.0 Addresses Concerns Raised by GAO, NRC, TMAC, and CBO

102. The concerns raised by GAO, the NRC, the TMAC, and the CBO, the legislative

[87] Id. at 2.
[88] Id.
[89] Id. at 21-28.
[90] Notably, FEMA did implement the recommendation to adjust premiums to reflect the value of insured properties with its change to consider replacement cost value (RCV) in setting premiums so that policyholders with lower value homes are no longer subsidizing policyholders with high value homes.

changes imposed by BW-12 and HFIAA, the advancement of scientific capabilities, and the increasing program debt all pointed to certain pricing inadequacies in the legacy rates.

103. Risk Rating 2.0, which incorporated the best practices of the industry and the better technology and data that is now available to the program for making flood risk determinations, is the logical outgrowth of the concerns raised about legacy rating that remained unchanged since the 1970s. The use of better data and technology through Risk Rating 2.0 is also consistent with FEMA's practice in other areas of the NFIP, such as flood hazard identification. For example, FEMA is in the process of adopting TMAC recommendations with respect to probabilistic modeling for mapping floodplains and structure specific flood risk that will further enhance the public's understanding of their flood hazards and risk. Indeed, FEMA mapping guidance specifically references the need for program updates to adapt to "advancements in current technology" resulting from advancements in the field due to catastrophic events."[91]

104. Since FEMA implemented Risk Rating 2.0, GAO has closed its 2008 recommendation (Recommendation 09-12), stating that **"[b]ased on FEMA's progress in creating a more accurate and modernized rate setting methodology that better reflects the full risk of loss, we are closing this recommendation as implemented."**[92] In fact, because of the implementation of Risk Rating 2.0**, FEMA recently met 3 of the 5 criteria that GAO requires it to meet in order to be removed from the GAO High-Risk List, with the remaining two criteria requiring congressional action.**[93]

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[91] See FEMA Guidance, "Atlantic Ocean and Gulf of Mexico Coastal Guidelines Update" (February 2007), PS-3, at https://s3.documentcloud.org/documents/4066030/Atlantic-Ocean-and-Gulf-of-Mexico-Coastal.pdf ("It is envisioned that the next phase of guidelines development for coastal flood hazards will be guided by advancements that are occurring in the coastal field due to the catastrophic events of the 2005 Hurricane Season. Advancements in current technology are being made at a rapid pace and these Guidelines need to be revisited in the future to incorporate these changes.").

[92] See GAO 09-12 Closed Recommendations, at https://www.gao.gov/products/gao-09-12.

[93] Id.

105. Risk Rating 2.0 is moving the NFIP toward a more sound financial future - a future in which the program is much less likely to be a financial burden to taxpayers and incurs billions of dollars of unpayable debt to the U.S. Treasury.[94]

IV. Risk Rating 2.0 vs. 1970s Legacy Rating

A. Risk Rating 2.0 Corrects Inadequacies in the NFIP's Legacy Rating

106. The Risk Rating 2.0 initiative was branded as "Equity in Action." The reason for this is that the result of FEMA making long overdue updates to the technology utilized by the NFIP and incorporating the most up-to-date data to inform the NFIP's flood risk determinations was that it also began to address many of the latent inequities perpetuated by the legacy rating approach.

107. As explained in more detail below, **under the old legacy rating, policyholders in lower value homes subsidized policyholders in higher value homes, policyholders of property subject to flood risk from pluvial flooding (extreme rainfall) were not paying for that risk at all because it was not taken into account in premium calculations, and the taxpayers subsidized the NFIP itself because the NFIP's debt grew so large due to insufficient premiums that the federal government had to cancel 16 billion dollars in NFIP debt**.[95] Under Risk Rating 2.0, every policyholder pays, or will eventually pay, for their own flood risk, not someone else's flood risk.

108. Additionally, because of the 1970s legacy rating methodology's use of a few zones to classify the wide variety of flood risk to which structures are actually exposed, policyholders would pay the same premium for structures in the same flood zone even though the flood risk for

[94] Although Risk Rating 2.0 was an important step towards this sound financial state, this is not yet realized because of statutorily required price capping, which ensures rates do not increase by more than 18% annually for most policyholders.

[95] See FEMA, "Rising Interest Expenses", at https://www.fema.gov/case-study/rising-interest-expenses#:~:text=The%20NFIP%20exhausted%20its%20borrowing,%241%20million%20in%20interest%20daily.

the two structures was very different. Similarly, policyholders of two neighboring structures would pay very different premiums depending on which side of the boundary of the Special Flood Hazard Area, or SFHA, they were located. Under Risk Rating 2.0, every policyholder pays, or will pay, for the true cost of their flood risk, regardless of where they are located with respect to the SFHA.

109. Nevertheless, while Risk Rating 2.0 is transformative in it impacts, what FEMA did was in keeping with the best practices of the insurance industry and normal, standard insurance practice.96 FEMA simply obtained the best available data,97 through the use of the same catastrophe modeling capabilities employed throughout the insurance industry and updated its Average Annual Losses to reflect a better understanding of the NFIP's risk exposure. Then FEMA used catastrophe models to refine its rating variables to include additional data points about an insured structure that will help better predict the flood risk to individual properties than the few variables FEMA had available to use in the 1970s.98 Insurance companies do the same thing on a regular basis. The only thing truly extraordinary about these actions is that FEMA waited almost so long to update its technology and data sources.

1. Inadequate Rating Variables Resulted in Policyholders Paying the Same Amount for Different Levels of Flood Risk

110. Since the 1970s, flood insurance premium rates have been predominantly based on two very broad rating factors: a property's elevation and the flood zone (as depicted on a Flood

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[96] As the American Academy of Actuaries stated in their 2018 Catastrophe Modeling Monograph, "The insurance industry's use of catastrophe models to estimate potential future catastrophe losses has gained momentum and has become a standard risk management practice."; see also, Actuarial Standard of Practice (ASOP) No. 38, which states that "Catastrophe models are now widely used by actuaries in all practice areas for risk management analyses and calculating expected losses due to hurricanes, earthquakes, and terrorist acts." ASOP 38, at https://www.actuarialstandardsboard.org/wp-content/uploads/2014/03/asop38_-revision_exposure-draft_september_2013.pdf.

[97] ASOP No. 23 states that "The actuary should use available data that, in the actuary's professional judgment, allow the actuary to perform the desired analysis." ASOP 23, at http://www.actuarialstandardsboard.org/wp-content/uploads/2015/11/ASOP-No.-23-revision_exposure-draft_nov-2015.pdf.

[98] See National Flood Insurance Program, Risk Rating 2.0 Methodology and Data Sources (January 18, 2022), at https://www.fema.gov/sites/default/files/documents/FEMA_Risk-Rating-2.0_Methodology-and-Data-Appendix__01-22.pdf.

Insurance Rate Map) in which it is located. First, a determination was made whether a home or building was in a Special Flood Hazard Area (SFHA). If a structure was located in an SFHA, the primary consideration was the elevation of the structure relative to Base Flood Elevation (BFE), which is an estimate of a flood water depth that has a 1% probability of being met or exceeded ach year.[99] For those structures not in an SFHA, as well as for those built before the introduction of NFIP flood maps, all locations nationwide paid similar rates based on occupancy type, structure type, coverage level, and deductibles.[100]

111. Consider, for example, two properties with the same structure and occupancy type, both of which are located outside of the SFHA. One property has already filed a flood claim and is not elevated. The other property has never had a flooding claim, is elevated 5 feet off of the ground, and is located further from the nearest flooding source. Using the legacy rating, these properties would be rated the same because they are in the same zone. Under Risk Rating 2.0, by contrast, the NFIP also considers the distance to the nearest flooding source, prior claims activity, and elevation of a structure in the determination of a policyholder's full-risk premium. Now FEMA is able to accurately discern that the second property, which is elevated and has no prior claims history, is far less likely to suffer from a future flooding loss than the first property.[101]

112. Under Risk Rating 2.0, FEMA incorporated more data points, or rating variables, that are better correlated with flood risk to a specific structure, such as the replacement cost value of the building, the distance to the nearest flooding source, drainage area, the elevation of the ground

[99] Additional input variables used to determine premium rates were occupancy type (e.g., single family, 2-4 family), type of structure (e.g., one floor with no basement for building coverage or lowest floor only for contents coverage).
[100] See, e.g., 2011 FEMA Actuarial Rate Review (October 1, 2011), at https://www.fema.gov/flood-insurance/work-with-nfip/actuarial-rate-review.
[101] In addition to creating an unfair pricing dynamic, this is also contrary to Actuarial Standards of Practice (ASOPs). ASOP 12 states that, "[t]he actuary should select risk characteristics that are related to expected outcomes." Legacy rating failed to include some rating variables that were related to expected flood losses. Risk Rating 2.0, by contrast, accounts for a wider range of flooding variables that are associated with flooding losses.

at a structure compared with the elevation at the flooding source, the first floor height[102], prior claims, and the building materials (frame vs. masonry), among others.[103]

2. Inadequate Rating Variables Resulted in Property Owners with Lower Value Homes Subsidizing the Flood Risk of Property Owners with High Value Homes

113. The lack of adequately predictive rating variables in the 1970s legacy pricing approach inadvertently caused other disparities among policyholders as well. One clear example is that by failing to take into account the replacement cost value of a structure (RCV), the 1970s legacy rating methodology would apply the same premium for $250,000 in coverage for a house that cost $250,000 as for a house that cost $5 million. This approach was inequitable because the same flood event is likely to cause more damage to a higher-value structure.

114. As an example, for a $250,000 home, $250,000 in damage– a total destruction of home value – would occur only with an infrequent severe flood event. In contrast, $250,000 of damage to a $5 million home – a destruction of just 5% of home value – could occur with far less severe and more frequent flood events. As a result, the $5 million home has a much higher probability of incurring $250,000 in damages than does a $250,000 home and, as such, should have a higher premium. By not accounting for this difference in probabilities, legacy pricing tended to result in undercharging for homes that are more expensive and overcharging for homes that are more modest.

115. This disparity is referred to as a cross-subsidization. Cross-subsidization means allowing some policyholders to subsidize, or pay for, the cost of insurance of other policyholders.

[102] Elevation of a home *was* considered in legacy rates, but only in the SFHA.
[103] See FEMA, "Rate Explanation Guide" (March, 2022), at https://www.fema.gov/sites/default/files/documents/fema_rate-explanation-guide.pdf; see also, FEMA Risk Rating 2.0 Rating Examples Spreadsheet, at https://www.fema.gov/sites/default/files/documents/fema_risk-rating_PCW_Rating_Examples.xlsx.

Under the old 1970s legacy rating, policyholders with lower value homes were paying more than their fair share to subsidize other policyholders who have higher value homes with higher flood loss exposure. By incorporating replacement cost value, or RCV, as a rating variable in the calculation of a policyholder's premium **under Risk Rating 2.0, FEMA more accurately accounts for differences in flood risk from properties of different values.** The use of RCV in setting premium rates is both actuarially sound and equitable.[104]

3. Inadequate Rating Variables Resulted in Policyholders Paying Different Premium Amounts for Similar Levels of Flood Risk

116. Legacy rating also resulted in inaccurate pricing disparities at the edges of flood zones. Neighboring property owners with similar building attributes and flood risk often had vastly different flood insurance costs due to the old legacy rating methodology's binary distinction inherent to the SFHA. Because premium rates were based primarily on flood zone, premiums for properties with similar flood risk exposure could have vastly different premiums because of their location immediately inside or outside of the SFHA. Under Risk Rating 2.0, flood insurance premiums are far better matched to a property's level of risk than they were using legacy rates.

117. The example depicted below references two properties, about 275 feet away from each other, both of which are very close to the coast. Using legacy rating, the flood insurance premium of the property inside the SFHA was almost four and a half times higher than the premium of the property outside the SFHA even though the properties share many of the same flooding risk characteristics. Although the property outside the SFHA is prone to higher expected flood losses, its flood zone designation allowed it to obtain lower premium rates under legacy rating. Because the old legacy rating relied heavily on flood zones, the property outside the SHFA

[104] See FEMA, FEMA Publishes More Data on New Flood Insurance Rating Methodology (January 11, 2022), at https://www.fema.gov/press-release/20220111/fema-publishes-more-data-new-flood-insurance-rating-methodology.

was charged an artificially low premium compared to its expected flood losses.[105]

	Out of the SFHA	Inside the SFHA
Legacy Rates		
Building Coverage	$250,000	$250,000
Contents Coverage	$100,000	$25,000
Building Deductible	$1,250	$5,000
Contents Deductible	$1,250	$5,000
Premium	$507	$2,233
Risk Rating 2.0		
Building Coverage	$250,000	$250,000
Contents Coverage	$100,000	$25,000
Building Deductible	$2,000	$5,000
Contents Deductible	$1,000	$5,000
Foundation Type	Slab	Slab
Construction Type	Masonry	Masonry
Number of Floors	1	1
Elevation (in feet)	9.2	5.2
First Floor Height (in feet)	1.1	1.1
Distance to Coast (in meters)	36.7	17.7
Distance to Ocean (in meters)	387.9	386.3
Replacement Cost Value	$411,822	$371,036
Full-Risk Premium	$6,972	$5,917

118. When FEMA established the 1970s legacy rating plan, catastrophe models were not available for insurance pricing. The pricing approach FEMA developed at the time relied on dividing the country into a small number of flood zones and assuming simple relationships about the probability of the different flood depths and the resulting damages. Although this was necessary at the time in the absence of more sophisticated tools, such as catastrophe models, it is an inappropriate technique to use today.

119. Because of Risk Rating 2.0, FEMA can more accurately identify flood risk exposure in assessing the full risk premium rates. With implementation of Risk Rating 2.0, premium rates

[105] Although the deductible and coverage levels differ slightly, they are not the basis for the difference in premiums. If the property inside the SFHA were to obtain identical coverage to the property outside of the SFHA, the Risk Rating 2.0 premium would increase from $5,917 to $7,263; the legacy premium would have been $3,995, instead of $2,233.

reflect that there are similar, and greater, expected flood losses for both properties so the difference between the properties' expected flood losses, and therefore premium, is much less than it was when legacy pricing was used.

4. Inadequate Total Premium Resulted in $36.5 Billion Debt Funded by Taxpayers

120. In addition to addressing cross-subsidizations, the **Risk Rating 2.0 initiative corrected for the historic inadequacies of total premiums collected to fund the NFIP**. As early as 2008, reports have pointed to the inadequacy of the total premium collected by the NFIP.[106] This is further evidenced by the NFIP's current debt level, which stands at $20.5 billion, even after $16 billion was cancelled in October 2017.[107]

121. The total premium collected using the old legacy pricing was inadequate, in part, because it did not account for all potential flooding sources and frequencies. For example, the legacy rates did not price for pluvial (rainfall) flooding risk. The Flood Insurance Rate Maps (FIRMs) considered only two sources of flood risk: the 1%-annual-chance riverine flood and the 1%-annual-chance coastal flood.[108] The NFIP indemnifies policyholders, subject to limits and policy terms, for a wide range of flooding events, not just those the 100-year flooding events depicted on FIRMs. **In short, while the NFIP insures flood losses resulting from a variety of**

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[106] See U.S. Government Accountability Office, "FEMA's Rate-Setting Process Warrants Attention" (October, 2008), at https://www.gao.gov/assets/gao-09-12.pdf.

[107] Congress has authorized FEMA to borrow no more than $30.425 billion from the U.S. Treasury in order to operate the NFIP. In January 2017, the NFIP borrowed $1.6 billion due to losses in 2016 (the August 2016 Louisiana floods and Hurricane Matthew). On September 22, 2017, the NFIP borrowed the remaining $5.825 billion from the Treasury to cover claims from Hurricane Harvey, Hurricane Irma, and Hurricane Maria, reaching the NFIP's authorized borrowing limit of $30.425 billion. 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. This represents the first time that NFIP debt has been cancelled, although Congress appropriated funds between 1980 and 1985 to repay NFIP debt. FEMA borrowed another $6.1 billion on November 9, 2017, to fund estimated 2017 losses, including those incurred by Hurricanes Harvey, Irma, and Maria and anticipated programmatic activities, bringing the debt up to $20.525 billion. The NFIP currently has $9.9 billion of remaining borrowing authority.

[108] See Congressional Research Service. "National Flood Insurance Program: The Current Rating Structure and Risk Rating 2.0 (April 4, 2022), p. 7, at https://sgp.fas.org/crs/homesec/R45999.pdf..

different perils, the legacy rates reflected flood losses from only two sources.

122. Moreover, in most locations[109], the old 1970s legacy rating gave no consideration to either more frequent, shallow flood depths or the less frequent, more severe flood depths. In some locations, the damage from a flood with, for example, 0.2% annual probability might be substantially more severe than the damage from a flood with a 1.0% annual probability.[110] In other locations, the damage from the two floods might be very similar.[111]

123. Risk Rating 2.0 addressed these inadequacies by utilizing catastrophe modeling to consider other sources of flooding and flood frequencies beyond the one percent riverine and coastal flooding events, as well as the full distribution of possible flooding at all locations. The additional sources of flooding considered include heavy rainfall, tsunami, Great Lakes flooding, and coastal erosion.[112] With the implementation of Risk Rating 2.0, FEMA now assesses full risk premiums that are actuarially sound and represent the wide range of flooding events for which policyholders may file a claim.[113]

5. Legacy Pricing Not Updated to Reflect Better Available Data and Industry Best Practices As Required by Statute

124. Although the legacy rating methodology was appropriate at the time it was developed in the 1970s, it no longer meets current actuarial standards. When FEMA established the old legacy

[109] In coastal areas, NFIP flood studies also assess the effects of storm surge and wave action. Id. at 3.
[110] See, e.g., FEMA Flood Insurance Study: Chatham County, GA (August 16, 2018), at pgs. 70-73, which shows the significant difference in stillwater elevations between the 0.1% and 0.2% annual chance of flood.
[111] In comparison, see, e.g., FEMA Flood Insurance Study: Los Angeles, CA, p. 165 (June 2, 2021), which shows very little difference between the 0.1% and 0.2% annual chance of flood.
[112] See National Flood Insurance Program, Risk Rating 2.0 Methodology and Data Sources (January 18, 2022), at https://www.fema.gov/sites/default/files/documents/FEMA_Risk-Rating-2.0_Methodology-and-Data-Appendix__01-22.pdf.
[113] The National Flood Insurance Act, at 42 U.S. Code § 4014 (a)(1)(B)(iv), requires that NFIP risk premium rates for flood be estimated in adherence with principles and standards of practice in ratemaking adopted by the American Academy of Actuaries and the Casualty Actuarial Society. A foundational principle of actuarial rate making requires that a rate account for the expected value of all future costs associated with an individual risk transfer. (see fn. 7). Therefore, NFIP rates must estimate flooding events beyond those with a one percent chance of being equaled or exceeded in any given year in order for those rates to be actuarial and therefore compliant with statute.

rating methodology, catastrophe models were not available for insurance pricing. Pricing techniques relied on the NFIP's historical average loss year[114] and hydrologic models.[115]

125. Since that time, "[t]he insurance industry's use of catastrophe models to estimate potential future catastrophe losses has gained momentum and has become a standard risk management practice," according to the American Academy of Actuaries[116] The AAA further states that "while historical data does bring valuable insight about catastrophe losses, it is insufficient in many cases to make proper projections for future catastrophe losses."[117] **Under Risk Rating 2.0, FEMA leveraged innovative technology and industry best practices, including catastrophe modeling, to address the inadequacies of the 1970s legacy rating.**

126. Because catastrophe models have a wide range of uses and capabilities, it is important to understand how the NFIP uses catastrophe models. Although catastrophe models are capable of incorporating future climate change from a technical perspective, FEMA does not utilize this capability in its use of catastrophe models to generate NFIP insurance rates.

127. NFIP premium rates reflect current, not future, conditions. This is intentional. Standard NFIP policies are sold, and therefore priced, in one-year increments. Any future climate change would be reflected in rates once it has occurred, through regular rate updates. Risk Rating 2.0 was designed so that the rates would be adaptable to future conditions and changes to flood risk as those changes are realized. It does not predict climate change, but rather enables rates to

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[114] "Catastrophe models were initially developed to address the shortcomings inherent in using historical data to project potential losses from infrequent, severe events that impacted many properties that were not geographically diverse." See Congressional Research Service. "National Flood Insurance Program: The Current Rating Structure and Risk Rating 2.0 (April 4, 2022), citing American Academy of Actuaries, "Uses of Catastrophic Model Output" (July, 2018), p. 3, at https://www.actuary.org/sites/default/files/files/publications/Catastrophe_Modeling_Monograph_07.25.2018.pdf.

[115] Notably, NFIP historical losses and exposures from January 1, 1992 to June 30, 2018 were utilized in the development of rates under the Risk Rating 2.0 rating methodology. These historical losses were used in two important ways: (a) to scale aggregate target premium and (b) to adjust and validate rating factors.

[116] See Catastrophe_Modeling_Monograph_07.25.2018.pdf (actuary.org)

[117] Id.

adjust to any changes to the current risk caused by climate change or any other factors as they happen.

128. As noted above, nearly all states, including the Plaintiff States, now permit the use of catastrophe models for catastrophic perils, such as hurricanes, for ratemaking. In addition to ensuring rates are in compliance with current actuarial standards and industry best practices, this modernization will better ensure that the amount FEMA is collecting in premiums matches the amount FEMA is paying for flood losses, thereby reducing the financial burden to taxpayers and avoiding the accumulation of billions of dollars of unpayable debt to the U.S. Treasury.[118]

6. Failure to Distinguish Flood Risk Reduction Differences Among Levees

129. Just as FEMA sought a more informed view of flood risk through use of catastrophe models to inform its flood risk determinations, FEMA also sought to utilize more comprehensive data about levees to ensure that the flood risk reduction provided by levees was adequately considered in the development of premium rates.[119]

130. When the legacy rating was in place, most structures behind accredited levees were provided a premium discount that did not differentiate the degree of flood risk reduction provided by levees. Structures behind these accredited levees may have been eligible for Preferred Risk Policies (PRPs), which provide the same coverage as a Standard Flood Insurance Policy at a much lower rate, approximately $500 in annual premium. Fundamentally, the legacy rating reflected a binary classification of levees (accredited vs. non-accredited) in which the policies for structures behind levees were either uniformly given a reduction in premium, or premiums were not reduced

[118] Although Risk Rating 2.0 was an important step towards this sound financial state, this is not yet realized because of statutorily required price capping, which ensures rates do not increase by more than 18% annually for most policyholders.

[119] See, generally, FEMA, Levees in Risk Rating 2.0 (February 2022), at https://www.fema.gov/sites/default/files/documents/FEMA_Levees-in-Risk-Rating-2.0_2_22.pdf.

at all, and the determination of which of the two applied was based on whether the levee was accredited [120] or not.[121]

131. The old legacy rating did not consider the varying degrees of flood risk reduction that different levees may provide. This was one of the weaknesses in the legacy rates identified by the NRC. The NRC noted that under the legacy rates, nonaccredited levees are treated as providing lesser or no flood protection. However, they found that "these nonaccredited levees may provide some protection against the 50 percent and 10 percent annual chance exceedance floods, which contribute significantly to losses for negatively elevated structures."[122]

132. Under Risk Rating 2.0, FEMA recognizes that most levees *do* provide some level of flood risk reduction, regardless of accreditation status, that should be considered in determining flood insurance rates.

133. Moreover, under the legacy rates, levees that provided flood risk reduction far beyond the minimum requirements of accreditation were treated the same as levees that only met the minimum requirements for accreditation.

134. **With the implementation of Risk Rating 2.0, FEMA now recognizes, and accounts for in premium rate determinations, the fact that non-accredited levees do provide some risk reduction and also that levees above the minimum accreditation requirements provide greater risk reduction than levees designed to the minimum requirements**.

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[120] An accredited levee system is a levee system that FEMA has shown on a FIRM that is recognized as reducing the flood hazards posed by a 1-percent-annual-chance flood. "This determination is based on the submittal of data and documentation as required by 44 C.F.R. §65.10. The area landward of an accredited levee system is shown as Zone X (shaded) on the FIRM except for areas of residual flooding, such as ponding areas, which are shown as SFHA." See FEMA, "Guidance for Flood Risk Analysis and Mapping: Levees" (November, 2022), p. 9, at https://www.fema.gov/sites/default/files/2020-02/Levee_Guidance_Nov_2019_v2.pdf.

[121] There is an exception to the general rule for structures that were located behind an accredited levee, but were nevertheless in an SFHA due to an interior drainage analysis. However, this exception only applied to a small percentage of structures.

[122] See National Research Council, "Tying Flood Insurance to Flood Risk for Low-Lying Structures in the Floodplain (2015), at https://nap.nationalacademies.org/read/21720/chapter/2#2.

135. FEMA's recognition of the flood risk reduction provided by individual levees pursuant to Risk Rating 2.0 is an improvement that it achieved by utilizing the more precise data provided in the National Levee Database and Levee Screening Tool,[123] to reflect the flood risk reduction provided by levees. The National Levee Database is the federally-recognized repository for comprehensive information about the nation's levees. FEMA incorporated this levee information into the catastrophe modeling, which is the foundation of the rates calculated pursuant to Risk Rating 2.0.[124]

136. The graduated risk approach established by Risk Rating 2.0 accounts for flood hazards larger and smaller than the 1%-annual-chance flood by leveraging additional data beyond that depicted on FIRMs, such as more precise levee information from the National Levee Database and the Levee Screening Tool. The resulting premium rates more clearly and accurately identify and communicate the flood risk exposure of an individual structure.

137. "Levee data helps to inform the benefits and risks that a levee provides to businesses, communities, and the public for purposes of modeling the losses due to floods. A levee reduces – but does not eliminate – flood risk. The limitations of a levee system, in both its capacity to reduce flooding in leveed areas (informed by overtopping frequency) and its ability to perform adequately during flood events (levee performance) are fundamental to [the] graduated risk approach [utilized by] Risk Rating 2.0. As such, more robust and better performing levees yield a quantifiable benefit to insurance policy holders."[125]

138. In sum, Risk Rating 2.0 improves upon the old legacy rating's consideration of the

[123] Both are maintained by the United States Army Corps of Engineers.
[124] Notably, the NLD has established a process for levee stakeholders who have levee information to either revise existing levee information in the NLD or provide missing information on a levee system. The data change request form may be found at https://survey123.arcgis.com/share/cabf71ef543b4408abed430d8f959c1a?width=1200.
[125] See FEMA, "Levees in Risk Rating 2.0" (February 2022), at 2.

flood risk reduction provided by levees by utilizing data in the National Levee Database and the Levee Screening Tool to account for the level of flood risk reduction provided by individual levees.[126] Notably, as part of the automated quoting process implemented under Risk Rating 2.0, NFIP insurers are provided the levee quality factor for the levee providing flood risk reduction, if applicable, to each property for which a quote is generated.

7. Failure to Properly Rate Risk Behind Levees

139. Under the legacy rates, a structure behind an accredited levee may have qualified for a PRP. An accredited levee system is a levee system that FEMA has shown on a FIRM that is recognized as reducing the flood hazards posed by a 1-percent-annual-chance flood, sometimes referred to as a "100-year flood." A levee designed to reduce flood risk from a 1-percent-annual chance (100-year) flood event is expected, but not guaranteed, to prevent flood losses from flood events up to and including the 1-percent-annual chance flood. In other words, it would be reasonable to expect flooding losses for a structure behind a "100-year levee" resulting from either (1) a flood event that occurs less frequently than a 1-percent-annual chance flood, or (2) failure of that levee during any flood event.

140. To understand how the premium rate for a PRP fell far short of the expected flooding losses, consider the example of a property with $350,000 of coverage ($250,000 in building; $100,000 in contents) that could suffer a total loss when a levee is overtopped or fails due to a 1% annual chance flood. A rough calculation for the average annualized loss for this property is $350,000 * .01 = $3,500.[127] $3,500 is a rough estimate for the average annualized loss (and does

[126] When Risk Rating 2.0 was implemented, the NFIP had high quality data, as provided by the National Levee Database and Levee Screening Tool, on the flood risk reduction provided by levees for at least 64% of the structures behind levees nationwide. Since implementation, these numbers have changed, and the percentage is likely much higher.

[127] Notably, the term "100-year flood" does not actually mean that a structure will only be flooded once every 100 years. It refers to a flood event that has a 1% chance of occurring each year.

not include expenses the NFIP would have to pay). This basic arithmetic does not reflect the process that the NFIP uses to calculate premiums, but it makes exceedingly clear that the $500 premium under the legacy rates grossly underestimated expected losses for such a structure.

8. Risk Rating 2.0 Eliminated Extreme Premiums

141. Under legacy rating, flood insurance premiums would continue to increase indefinitely. Under Risk Rating 2.0, FEMA established an upper bound that limits costs on the highest end of the spectrum. This means that currently no primary residence single-family home policies will see a premium of more than $12,125, inclusive of fees, assessments, and surcharges.

142. Under the 1970s legacy rates, flood insurance premiums could have been as high as $55,000 for a single-family home, including all fees, assessments, and surcharges.

143. If FEMA continued using the old legacy rating approach, inequitable rates would have remained in place, and many policyholders would have continued to pay more than they should.

9. Risk Rating Engine Improves Upon 1970s Technology of Legacy System

144. Legacy rates could be calculated using a pencil, a premium worksheet (comparable to an Excel spreadsheet), and a calculator because the technology was from the 1970s (i.e., before the Walkman was invented).

145. However, users could not always calculate the rates accurately since the error rate for premium rate determinations made using this worksheet were quite high; some even estimated the error rate was as high as 20%.

146. The WYO Companies and NFIP Direct used 4 different vendors. These 4 vendors created their own underwriting and rating engine to quote and issue policies in accordance with the rules for legacy rates. These multiple rate and rule engines, along with the old legacy rating's complexity, resulted in differences in premium rates based on which vendor system was utilized

an/or the agent's level of expertise.

147. FEMA leveraged technology and data to streamline the underwriting and policy issuance process for both agents and customers with the creation of an online Risk Rating Engine. Instead of using 4 different rating engines that have historically shown significant variation in their underwriting rules and premium rates, FEMA's Risk Rating Engine is a "one-stop-shop" for getting consistent rules and premiums for an NFIP policy across all WYO companies which substantially minimizes the chance of user error.

148. The Risk Rating Engine is a module within Pivot, a state-of-the-art system that allows the NFIP to process millions of insurance transactions on a nearly real-time basis compared to the 60-day lag when the legacy rates were in place.

149. Using high-tech integrated geospatial software, the Risk Rating Engine is able to geo-locate a piece of property, allowing FEMA to identify the location of the structure being insured, which plays an integral role in determining the risk of flooding to that structure.

150. FEMA's new rating engine provides a seamless and intuitive experience that helps agents easily price and sell policies. The agent simply enters a few basic pieces of information into the rating engine, including the property address, the structural characteristics of the insured property, and the amount of coverage and deductible desired. Then the Risk Rating Engine generates a premium.

151. FEMA's new centralized rating engine also allows policyholders to better understand their property's flood risk and how it is reflected in their cost of insurance. This simplifies the rating process, while also giving policyholders a more complete picture of their flood risk by communicating their true full-risk premium, critical discounts that reduce risk (the Community Rating System discount and mitigation discounts), and what they need to pay today (current

premium, fees, assessments, and surcharges). Accordingly, policyholders have the information they need about their flood risk and what actions can be taken to reduce that flood risk.

10. Risk Rating 2.0 Improves Communication About Risk

152. As discussed earlier, premium rates based on the Flood Insurance Rate Maps considered only two sources of flood risk: the 1%-annual-chance riverine flood and the 1%-annual-chance coastal flood.[128] Because premium rates based on the FIRMs did not account for all the perils that could potentially cause flooding, the premium rates tended to portray a distorted picture of the actual flood risk to property. This was exacerbated by the fact that programmatic subsidies and cross-subsidies resulted in artificially low premium rates. These artificially low premium rates often led policyholders to believe that their risk of flood was low, corresponding to the low premium rates. Additionally, the binary nature of the depiction of flood hazards on flood maps led the public to equate being "in" or "out" of the SFHA with being at risk, or not at risk, of flooding.

153. By adding a consideration of other perils, such as those from pluvial flooding (rainfall), FEMA is better communicating the full risk of flooding from more sources of flooding. The effects of pluvial flooding are often severe and must be communicated, as seen in Letcher, Kentucky, where a storm in the summer of 2022 dumped as much as 16 inches of rain over a 5-day period, according to the National Weather Service.[129] That storm resulted in 44 deaths and swept away homes, bridges, and other buildings. The main cause of that flooding was rainfall, which came streaming down the hillsides of Appalachia and into networks of small waterways.[130]

154. As noted in a recent Wall Street Journal article, recent research has found that parts

[128] Notably, premium rates did not consider a combination of the 1% annual chance riverine flood and the 1% annual chance coastal flood.
[129] See Wall Street Journal, "Flooding Hits American Towns Far From Oceans and Big Rivers"(June 19, 2023), at https://www.wsj.com/articles/flooding-inland-climate-change-kentucky-3ed2c7fb.
[130] Id.

of Appalachia are the biggest hidden risk in the United States. Yet the biggest source of flood risk to those areas, according to the model developed as part of that research, is precipitation and small streams.[131] And these are risks that have not historically been accounted for in NFIP premium rates and, as such, not clearly communicated to the public. And if the public does not understand its flood risk, it is much less likely to take action to financially protect itself against that flood risk by purchasing flood insurance and/or undertaking actions to mitigate that flood risk.

B. Similarities Between the Legacy Rates and Risk Rating 2.0

1. Under Either Rating Approach, FEMA is Required to Move to Full Risk Rates

155. Risk Rating 2.0 continues the phase-out of NFIP subsidies, which began with BW-12 and continued with HFIAA.

156. FEMA is now required by statute to charge actuarial rates on most[132] NFIP flood insurance policies, subject to the statutory limits set in BW-12 for pre-FIRM properties and in HFIAA, which set a cap of 18% on premium increases for most policies.[133] Statutory limits on rate increases have not changed under Risk Rating 2.0. These limits on rate increases provide financial certainty for policyholders and prevent steep increases to annual premiums.

157. **Regardless of whether FEMA utilizes the 1970s rating approach or the updated rating approach established as part of Risk Rating 2.0, FEMA is required to issue actuarially-based rates**.

158. To issue actuarially based rates, FEMA must take into account the known perils that cause flooding, which it does through catastrophe modeling. **Even if FEMA retained all other aspects of the legacy rates, FEMA would still be required to employ catastrophe modeling**

[131] Id.
[132] For exceptions, see 42 U.S. §4014(e).
[133] 42 U.S.C. § 4015(e)(1).

because it is the most actuarily sound way to calculate expected losses for low-frequency, high-severity events."

159. Furthermore, to issue actuarially based rates, FEMA cannot load for an expense to pay for prior debt or to service that debt. In short, FEMA cannot charge more in its premium rates to pay of its outstanding debt. The Statement of Principles Regarding Property and Casualty Insurance Ratemaking, promulgated by the Casualty Actuarial Society, states that ratemaking is *prospective*. This means costs are forward-, not backwards-looking. Specifically, the foundational principles of actuarial ratemaking state that a rate is an estimate of the expected value of all *future* costs associated with the transfer of risk.[134] While the NFIP cannot pay off its debt by charging higher flood insurance premiums, once properties are fully phased into actuarial rates, FEMA's likelihood of borrowing to cover future losses will be substantially reduced.

2. Risk Rating 2.0 Takes in to Account the Same Rating Factors as Legacy Rates

160. As discussed above, legacy rates were primarily based on flood zones and the base flood elevation, as well as a few structural characteristics of the insured structure. Risk Rating 2.0 uses these same rating factors.

161. Flood zones are determined based upon the 1% annual chance flood depicted on an NFIP flood map. Under Risk Rating 2.0, premium rates still take into account the 1% annual chance of flood. The difference is that Risk Rating 2.0 reflects an understanding that there are more sources of flood hazard and risk than the 1% annual chance of flood, like the flooding from rainfall that led to the deadly flooding in Kentucky last year.[135]

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[134] See, Statement of Principles Regarding Property and Casualty Insurance Ratemaking, adopted by the Board of Directors of the Casualty Actuarial Society (May, 1988), p. 2, at https://www.casact.org/sites/default/files/2021-05/Statement-Of-Principles-Ratemaking.pdf.

[135] See Appendix B, Wall Street Journal, "Flooding Hits American Towns Far From Oceans and Big Rivers" (June 19, 2023).

162. Moreover, as stated on FEMA's Risk Rating 2.0 website, "FEMA's flood map data informed the catastrophe models used in the development of rates under Risk Rating 2.0."[136] The Mapping Data Integration (MDI) catastrophe model integrated FEMA's regulatory FIRMs and nonregulatory flood hazard data into Risk Rating 2.0.[137] Under Risk Rating 2.0, several commercial catastrophe models and MDI were blended to develop a composite understanding of flood risk. Accordingly, both the data used in determining flood zones on NFIP flood maps, as well as the maps themselves, were utilized in establishing Risk Rating 2.0 premium rates.

163. Likewise, the same structural characteristics used in legacy rating are accounted for under Risk Rating 2.0, including foundation type, occupancy type, number of floors, the inclusion or exclusion of flood openings, coverage, deductible, and whether or not covered machinery and equipment is elevated. Risk Rating 2.0 premium rates also still take into account the elevation of the lowest floor of the building. It is now called First Floor Height.

164. Accordingly, regardless of which rates are used, they both reflect the same considerations. Risk Rating 2.0 premium rates, however, take into account more data about additional factors that are predictive of flood risk and also account for more sources of flood risk.

3. Legacy Rates and Risk Rating 2.0 Both Recognize Flood Risk Reduction Provided by Levees in Establishing Premium Rates, but Under Risk Rating 2.0, Wider Range of Levees Recognized as Providing Flood Risk Reduction

165. The flood risk reduction provided by levees is recognized whether legacy rating or Risk Rating 2.0 is utilized. However, the legacy rates reflected a binary understanding of whether the levee did or did not reduce flood risk for only the 1-percent-annual chance flood hazard. Under Risk Rating 2.0, FEMA recognizes the flood risk reduction provided by individual levees against

[136] See FEMA, "Risk Rating 2.0: Equity in Action" (last updated June 5, 2003), at https://www.fema.gov/flood-insurance/risk-rating.
[137] See "NFIP Risk Rating 2.0 Methodology and Data Sources" (March 25, 2021), at https://www.fema.gov/sites/default/files/documents/fema_risk-rating-2.0-methodology-data-sources_3-2021.pdf.

floods that are more or less frequent than the 1-percent-annual chance, and those differing levels of risk reduction are reflected in the premium rates. By providing more transparent rates that indicate the true risk of flood to a property, Risk Rating 2.0 risk premium rates also reflect the fact that levees, even when constructed with high levels of protection, do not eliminate all flood risk.

166. Additionally, FEMA has not, as part of Risk Rating 2.0, proposed any changes to the levee accreditation requirements established in the 44 C.F.R. § 65.10, nor to the levee analysis and mapping procedures for non-accredited levees, which are documented in FEMA's guidelines and standards for the analysis and identification of the 1%-annual-chance flood hazard on a FIRM.

4. Communities and Policyholders Are Able to Reduce Flood Insurance Premiums Through Mitigation Options for Both Legacy Rates and Rates Issued Pursuant to Risk Rating 2.0[138]

a. Individual-Level Mitigation Options

167. Under Risk Rating 2.0, unlike with the legacy rates, FEMA is expanding certain flood insurance policy discounts by making them available to properties located outside of the SFHA. When property owners take steps to mitigate their property, flood insurance policyholders may receive a reduced premium. Mitigation efforts, such as installing proper flood openings in a crawlspace or properly elevating machinery and equipment, will help to reduce flood damage and potentially decrease the cost of flood insurance.[139] For each of these mitigation actions, FEMA has assigned a percentage discount that will be taken off the total premium amount.[140]

168. Not only does Risk Rating 2.0 retain mitigation discounts available under legacy

[138] For general overview of available mitigation options, see FEMA Fact Sheet: Risk Rating 2.0 is Equity in Action (April, 2021), at https://www.fema.gov/sites/default/files/documents/fema_rr-2.0-equity-action_0.pdf.
[139] See NFIP Flood Insurance Manual, Risk Rating 2.0: Equity in Action Edition (October, 2022), at 3.26-3.31.
[140] Additionally, as part of Risk Rating 2.0, FEMA considers the elevation of the building in relation to the adjacent ground - First Floor Height. The First Floor Height is rating factor that is applied based on the building's first floor height above the ground. The higher the floor is above the ground, the lower the premium.

rating,[141] it is important to note that the number of policyholders receiving these discounts is far higher under Risk Rating 2.0.

i. Increases in Policyholder Receiving Discounts for Elevating Insured Structure

169. On September 1, 2021, prior to implementation of Risk Rating 2.0, there were 712,991 policyholders nationwide receiving a mitigation discount for elevating the insured structure. As of June 21, 2023, there are **4,638,600** policyholders nationwide receiving a discount for elevating the insured structure.

170. On September 1, 2021, prior to implementation of Risk Rating 2.0, there were 253,540 Florida policyholders receiving a mitigation discount for elevating the insured structure. As of June 21, 2023, there are **1,639,807** Florida policyholders receiving a discount for elevating the insured structure.

171. On September 1, 2021, prior to implementation of Risk Rating 2.0, there were 515 Idaho policyholders receiving a mitigation discount for elevating the insured structure. As of June 21, 2023, there are **5,552** Idaho policyholders receiving a discount for elevating the insured structure.

172. On September 1, 2021, prior to implementation of Risk Rating 2.0, there were 2,716 Kentucky policyholders receiving a mitigation discount for elevating the insured structure. As of June 21, 2023, there are **17,604** Kentucky policyholders receiving a discount for elevating the insured structure.

173. On September 1, 2021, prior to implementation of Risk Rating 2.0, there were 32,456 Louisiana policyholders receiving a mitigation discount for elevating the insured structure. As of

[141] See FEMA Discount Explanation Guide (April, 2022), at https://www.fema.gov/sites/default/files/documents/fema_discount-Explanation-Guide.pdf.

June 21, 2023, there are **470,900** Louisiana policyholders receiving a discount for elevating the insured structure.

174. On September 1, 2021, prior to implementation of Risk Rating 2.0, there were 9,462 Mississippi policyholders receiving a mitigation discount for elevating the insured structure. As of June 21, 2023, there are **55,843** Mississippi policyholders receiving a discount for elevating the insured structure.

175. On September 1, 2021, prior to implementation of Risk Rating 2.0, there were 167 Montana policyholders receiving a mitigation discount for elevating the insured structure. As of June 21, 2023, there are **4,009** Montana policyholders receiving a discount for elevating the insured structure.

176. On September 1, 2021, prior to implementation of Risk Rating 2.0, there were 128 North Dakota policyholders receiving a mitigation discount for elevating the insured structure. As of June 21, 2023, there are **7,254** North Dakota policyholders receiving a discount for elevating the insured structure.

177. On September 1, 2021, prior to implementation of Risk Rating 2.0, there were 75,061 South Carolina policyholders receiving a mitigation discount for elevating the insured structure. As of June 21, 2023, there are **196,061** South Carolina policyholders receiving a discount for elevating the insured structure.

178. On September 1, 2021, prior to implementation of Risk Rating 2.0, there were 41,768 Texas policyholders receiving a mitigation discount for elevating the insured structure. As of June 21, 2023, there are **681,974** Texas policyholders receiving a discount for elevating the insured structure.

179. On September 1, 2021, prior to implementation of Risk Rating 2.0, there were 24,347

Virginia policyholders receiving a mitigation discount for elevating the insured structure. As of June 21, 2023, there are **93,109** Virginia policyholders receiving a discount for elevating the insured structure.

ii. Increases in Policyholders Receiving Discounts for Installing Flood Openings

180. On September 1, 2021, prior to implementation of Risk Rating 2.0, there were 53,884 policyholders nationwide receiving a mitigation discount for installing flood openings. As of June 21, 2023, there are **147,175** policyholders nationwide receiving this mitigation discount.

181. On September 1, 2021, prior to implementation of Risk Rating 2.0, there were 15,510 Florida policyholders receiving a mitigation discount for installing flood openings. As of June 21, 2023, there are **30,061** Florida policyholders receiving this discount.

182. On September 1, 2021, prior to implementation of Risk Rating 2.0, there were 35 Idaho policyholders receiving a mitigation discount for installing flood openings. As of June 21, 2023, there are **107** Idaho policyholders receiving this discount.

183. On September 1, 2021, prior to implementation of Risk Rating 2.0, there were 140 Kentucky policyholders receiving a mitigation discount for installing flood openings. As of June 21, 2023, there are **502** Kentucky policyholders receiving this discount.

184. On September 1, 2021, prior to implementation of Risk Rating 2.0, there were 1,963 Louisiana policyholders receiving a mitigation discount for installing flood openings. As of June 21, 2023, there are **7,843** Louisiana policyholders receiving this discount.

185. On September 1, 2021, prior to implementation of Risk Rating 2.0, there were 410 Mississippi policyholders receiving a mitigation discount for installing flood openings. As of June 21, 2023, there are 2,388 Mississippi policyholders receiving this discount.

186. On September 1, 2021, prior to implementation of Risk Rating 2.0, there were 9

Montana policyholders receiving a mitigation discount for installing flood openings. As of June 21, 2023, there are **26** Montana policyholders receiving this discount.

187. On September 1, 2021, prior to implementation of Risk Rating 2.0, there were 12 North Dakota policyholders receiving a mitigation discount for installing flood openings. As of June 21, 2023, there are 5 North Dakota policyholders receiving this discount.

188. On September 1, 2021, prior to implementation of Risk Rating 2.0, there were 5,418 South Carolina policyholders receiving a mitigation discount for installing flood openings. As of June 21, 2023, there are **21,066** South Carolina policyholders receiving this discount.

189. On September 1, 2021, prior to implementation of Risk Rating 2.0, there were 4,786 Texas policyholders receiving a mitigation discount for installing flood openings. As of June 21, 2023, there are **8,407** Texas policyholders receiving this discount.

190. On September 1, 2021, prior to implementation of Risk Rating 2.0, there were 2,730 Virginia policyholders receiving a mitigation discount for installing flood openings. As of June 21, 2023, there are **5,417** Virginia policyholders receiving this discount.

iii. Increases in Policyholders Receiving Discounts for Elevating Machinery and Equipment

191. Risk Rating 2.0 also credits mitigation activities that were not credited when legacy rates were used, such as elevating machinery and equipment.

192. While no policyholders were receiving this discount when legacy rating was in place, there are now **497,645** policyholders[142] receiving this discount nationwide under Risk Rating 2.0, including **218,559** policyholders in Florida, **846** policyholders in Idaho, **2,144** policyholders in Kentucky, **46,676** policyholders in Louisiana, 4,699 policyholders in Mississippi, **362** policyholders in Montana, **329** policyholders in North Dakota, **22,703** policyholders in South

[142] As of June 16, 2023.

Carolina, **57,142** policyholders in Texas, and **10,740** policyholders in Virginia.

b. Community Rating System

193. Risk Rating 2.0 did not eliminate the discounts applied to standard flood insurance policies through the Community Rating System (CRS). Communities in Florida, Idaho, Kentucky, Louisiana, Mississippi., Montana, North Dakota, South Carolina, Texas, and Virginia all participate in CRS, and policyholders in good standing in those communities receive discounted premiums.

194. Moreover, as discussed in greater detail below, far more policyholders are receiving CRS discounts under Risk Rating 2.0 than when legacy rates were used. Nationwide, prior to the implementation of Risk Rating 2.0, there were 1,863,089 policies in force that received a CRS discount totaling $336,051,985. After implementation of Risk Rating 2.0, there are **3,344,140** policies in force receiving a CRS discount totaling **$800,903,705**. If the implementation of Risk Rating 2.0 is enjoined, 1,481,051 policies will no longer receive CRS discounts.

195. CRS is a voluntary incentive program that recognizes and encourages community floodplain management practices that exceed the minimum requirements of the NFIP. Over 1,500 communities participate nationwide.

196. In CRS communities, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community's efforts that address the three goals of the program:

- Reduce and avoid flood damage to insurable property
- Strengthen and support the insurance aspects of the National Flood Insurance Program
- Foster comprehensive floodplain management[143]

[143] See FEMA, "Community Rating System", at https://www.fema.gov/floodplain-management/community-rating-system#:~:text=Under%20Risk%20Rating%202.0%3A%20Equity,Flood%20Hazard%20Area%20(SFHA).

197. Flood insurance premium discounts in CRS communities range from 5% to 45% and are discounted in increments of 5%. A Class 10 community is not participating in the CRS and receives no discount. A Class 9 community receives a 5% discount for all policies, a Class 8 community receives a 10% discount, all the way to a Class 1 community, which receives a 45% premium discount. Id.

198. Classifications are based on the community's CRS credit points obtained in 19 creditable activities. The CRS activities are organized in four categories:

- Public Information
- Mapping and Regulations
- Flood Damage Reduction
- Warning and Response

Id..[144]

199. The applicability of the CRS discount was actually expanded under Risk Rating 2.0. Under the old legacy rating, the percentage of the CRS discount in a community depended on the location of the building, compliance with floodplain ordinances, and eligibility for certain rates. The CRS discounts under the legacy rates were:

• 5-45% for most buildings (depending on CRS Class), including pre-FIRM buildings, within the SFHA;

• 5-10% for buildings located outside the SFHA and rated using X-Zone Standard rates;

• 0% (no discount) for a small number of other structures, including Post-FIRM structures that were not built in compliance with the communities' floodplain ordinances;

[144] Id.

• 0% for PRP policies, which are outside the SFHA; and

• 0% for Newly Mapped Policies which are structures that have been recently mapped as inside the SFHA.

200. Under Risk Rating 2.0, CRS discounts are applied to the full risk premiums for policies of all eligible[145] policyholders in the community. **In other words, a lot more policyholders are receiving CRS discounts under Risk Rating 2.0.**

201. Looking at all policies nationwide, on September 1, 2021, prior to the implementation of Risk Rating 2.0, there were 1,863,089 policies in force that received a CRS discount totaling $336,051,985. As of May 23, 2023, there are **3,344,140** policies in force receiving a CRS discount totaling **$800,903,705**. That is a 79.5 % increase in policyholders receiving CRS discounts and a 138 % increase in the amount of CRS discounts being provided.

202. Looking just at Louisiana policies, on September 1, 2021, prior to the implementation of Risk Rating 2.0, there were 156,263 policies in force that received a CRS discount totaling $26,564,761. As of June 21, 2023, there are **376,061** policies in force receiving a CRS discount totaling **$96,628,418.00.** That is a 141% increase in policyholders receiving CRS discounts and a 264% increase in the amount of CRS discounts being provided.

203. On September 1, 2021, prior to the implementation of Risk Rating 2.0, there were 1,042,544 Florida policies in force that received a CRS discount totaling $179,621,953. As of June 21, 2023, there are **1,541,196** Florida policies in force receiving a CRS discount totaling **$391,330,071**.

204. On September 1, 2021, prior to the implementation of Risk Rating 2.0, there were 1,625 Idaho policies in force that received a CRS discount totaling $152,639. As of June 21, 2023,

[145] An eligible policyholder is one whose structure is built in compliance with the minimum floodplain management requirements at 44 C.F.R. Part 60.

there are **2,631** Idaho policies in force receiving a CRS discount totaling **$356,676**.

205. On September 1, 2021, prior to the implementation of Risk Rating 2.0, there were 5,892 Kentucky policies in force that received a CRS discount totaling $2,338,618. As of June 21, 2023, there are **8,078** Kentucky policies in force receiving a CRS discount totaling **$2,962,557**.

206. On September 1, 2021, prior to the implementation of Risk Rating 2.0, there were 16,070 Mississippi policies in force that received a CRS discount totaling $1,779,368. As of June 21, 2023, there are **36,139** Mississippi policies in force receiving a CRS discount totaling **$8,243,452**.

207. On September 1, 2021, prior to the implementation of Risk Rating 2.0, there were 874 Montana policies in force that received a CRS discount totaling $128,470. As of June 21, 2023, there are **2,487** Montana policies in force receiving a CRS discount totaling **$310,135**.

208. On September 1, 2021, prior to the implementation of Risk Rating 2.0, there were 810 North Dakota policies in force that received a CRS discount totaling $135,066. As of June 21, 2023, there are **5,295** North Dakota policies in force receiving a CRS discount totaling **$970,282**.

209. On September 1, 2021, prior to the implementation of Risk Rating 2.0, there were 102,561 South Carolina policies in force that received a CRS discount totaling $18,600,678. As of June 21, 2023, there are **177,426** South Carolina policies in force receiving a CRS discount totaling **$40,930,052**.

210. On September 1, 2021, prior to the implementation of Risk Rating 2.0, there were 144,464 Texas policies in force that received a CRS discount totaling $26,318,354. As of June 21, 2023, there are **414,432** Texas policies in force receiving a CRS discount totaling **$94,235,425**.

211. On September 1, 2021, prior to the implementation of Risk Rating 2.0, there were 35,147 Virginia policies in force that received a CRS discount totaling $5,458,132. As of June 21,

2023, there are **74,512** Virginia policies in force receiving a CRS discount totaling **$8,193,911**.

212. Also of note, a number of the Plaintiff Parishes claiming to have suffered from the loss of CRS discounts due to Risk Rating 2.0 do not actually participate in the CRS program, including Caldwell Parish, Cameron Parish, Catahoula Parish, Claiborne Parish, Concordia Parish, Evangeline Parish, Franklin Parish, Grant Parish, Tensas Parish, Washington Parish, and West Feliciana Parish.[146] Additionally, due to compliance issues, LaFourche Parish and Livingston Parish have been retrograded to a CRS class 10, which means they do not receive any premium discounts.

V. Adverse Impacts Should the Implementation of Risk Rating 2.0 be Enjoined

213. If the implementation of the current rates is enjoined by the Court, five adverse impacts are readily identifiable:

a. Harm to Policyholders - If Risk Rating 2.0 were enjoined and the 1970s legacy rating was reestablished, policyholders would pay premium rates based on an inaccurate determination of risk. The 19% of the nation's single-family home policyholders who continue to see decreased premiums since Risk Rating 2.0 was implemented would have to pay more money to keep the same level of coverage and would revert back to paying higher premium rates than they should be paying. Homeowners with lower value homes would continue to subsidize homeowners in higher value homes. Policyholders in inland counties would continue to subsidize policyholders in coastal counties and parishes. Policyholders in North Louisiana would continue to pay for the higher flood risk of policyholders in southern Louisiana. Some policyholders would pay extreme premiums of anywhere from $15,000-$55,000. And all policyholders would continue to pay higher and

[146] See FEMA, Community Status Book Report for Louisiana, at https://www.fema.gov/cis/LA.pdf.

higher premiums indefinitely because the technology employed to establish legacy rates is not adequate to determine a property's full risk rate so there is no basis for FEMA to determine that the property's premium is adequate to cover its losses.

b. Harm to Taxpayer/Financial Instability of the NFIP – If Risk Rating 2.0 were enjoined and the 1970s legacy rating was reestablished, the ongoing financial instability of the NFIP would be further exacerbated due to the current NFIP debt (currently 20.525 billion) and premiums that are only 60% of the actual costs to operate the NFIP, and the likelihood that this debt would continue to grow since the program would forego additional premium that it should be collecting were the risks properly rated. This would harm the taxpayers, who have already financed billions of dollars of debt cancellation and will likely do so in the future if the NFIP continues to operate in such an unsustainable manner.

c. Violation of the National Flood Insurance Act - An injunction would compel FEMA to violate the National Flood Insurance Act's requirement to issue premium rates that are risk-based, actuarially sound so as to cover expected losses, sufficient to cover the costs of running the program, and reasonable.

d. Harm to FEMA - FEMA would have to undertake a lengthy, costly, multi-year effort to dismantle Risk Rating 2.0 and re-implement 1970s legacy rating, including renegotiation of contracts, procurement of elevation certificates, lengthy and time-consuming system updates, form updates, revisions to policies and guidance, training of new staff and re-training of other staff, training and re-training of WYO carriers' staff, re-underwriting of over 4.7 million flood insurance policies, and an intense communication effort with WYO companies, NFIP stakeholders, and policyholders about the changes. Additionally, this would do a great deal of damage to FEMA's relationships with its policyholders, its

stakeholders, the WYO companies, the public, and its staff, and this breach of trust could damage those relationships for many years to come. Moreover, it would impede FEMA's ability to carry out its mission.

e. Harm to Write Your Own (WYO) companies – The WYO companies, who have individually incurred and continue to presently incur expenses for the implementation of Risk Rating 2.0 into their current systems, will be forced to expend even more funds to dismantle Risk Rating 2.0 and re-implement the 1970s legacy rating. This would include renegotiation of vendor contracts, obtaining elevation certificates, numerous and time-consuming system updates, extensive communications with policyholders, and training/re-training of insurance agents, especially those with little or no experience implementing the old legacy rating. Further, implementation expenses the WYO companies already incurred will be a loss. Additionally, the WYO companies and/or agents would suffer damage to their professional reputation, which would likely result in a loss of business, including the loss of some agents' entire books of business, not just the flood policy.

214. It is also important to note that while FEMA can take the requisite steps to dismantle Risk Rating 2.0 and re-implement legacy rating, there is no way to fully effect the return to legacy rates. Through the use of catastrophe modeling, FEMA has identified sources of flood risk that were previously unaccounted for in its premium rates. **While the NFIP insures flood losses resulting from a variety of different perils, the legacy rates reflected flood losses from only two sources**.

215. The consideration of more sources of flood risk, in turn, translates into increased premiums to account for the expected flood losses based on those risks. It is the identification of these additional sources of flood risk that is driving the price increases at the nationwide level.

However, now that FEMA has seen the risk, ignoring that risk would not only be contrary to the statutory requirements of the NFIA, it is contrary to the NFIP's mission and purpose. In short, **even if Risk Rating 2.0 were enjoined, that injunction could not extend to the use of catastrophe modeling to set the AAL[147] without compelling FEMA to violate the law.**

216. Even if the use of catastrophe modeling to set the AAL could be lawfully enjoined, there would still be no fully effective return to legacy rating as it existed in 2020 because, as explained in detail below, in addition to the fact that the return to legacy rating would take millions of dollars and several years to implement, it would also lead to additional adverse effects beyond those caused by the legacy rating itself, including the loss of low-risk policyholders, adverse selection[148] issues caused by the loss of those policyholders, loss of WYO companies from the program, diversion of years of staff time away from ongoing implementation of the NFIP as well as efforts to improve the NFIP for its policyholders and other stakeholders, and even the possibility that the litigation and all the adverse impacts of the return to legacy rating could lead to Congress failing to reauthorize the program on September 30, 2023.

A. Harm to Policyholder

1. Policyholders Will Not Receive Premium Decreases

217. As discussed above, the NFIP's legacy rating methodology, which was established in the 1970s, was based on the general characteristics of the structure and the amount of insurance someone could purchase. It did not take into consideration the individual flood risk and the cost to rebuild. Over time, this inadvertently caused a disparity where policyholders owning lower-valued homes were paying more than they should be paying given their risk, while policyholders with

[147] See Paragraph 29.
[148] Adverse selection occurs when an insurer fails to price for differences in risk, leading to an insurance pool with only the riskiest customers.

higher-valued homes were paying less.

218. With the implementation of Risk Rating 2.0, 19% of single-family home policyholders nationwide received premium decreases.[149]

219. If FEMA were forced to bring back the old, 1970s legacy rates, premiums for these policyholders would be increased above their fair, actuarial price. These policyholders would be forced to pay more than the fair, actuarial price for their property's flood insurance. In many cases, these policyholders have property with a lower replacement cost value (RCV). Under legacy rating. these policyholders were subsidizing the cost of flood insurance for higher-valued homes. A reversion to this approach is inequitable, and moreover, contrary to statute.[150]

220. If the Court enjoins the implementation of Risk Rating 2.0, this 19% of single-family home policyholders will be harmed and compelled to pay higher premiums in order to continue the program subsidies that have allowed policyholders with higher value homes to pay much less than they would if their home was accurately rated.

2. Policyholders with Decreased Premiums Will Be Compelled to Pay More Money or Have Coverage Reduced

221. If FEMA were to stop implementing Risk Rating 2.0 and revert back to legacy rating, FEMA and the WYO Companies would have to seek the additional premium for 921,581 policies. If these policyholders fail to pay within 30 days, the amount of coverage provided under their policies will be lowered to the coverage amount that is commensurate with the premium paid.[151]

3. Policyholders Will Continue Paying Higher Flood Insurance Premiums Indefinitely

222. Additionally, if the implementation of Risk Rating 2.0 is permanently enjoined,

[149] As of 6/21/23.
[150] 42 U.S.C. §§ 4014-15.
[151] See 44 C.F.R. Pt. 61, App. A(1), Art. VII.D.

policyholders will continue to see annual premium rate increases indefinitely. Under Risk Rating 2.0, FEMA is able to ascertain a property-specific full risk rate. Once a policy reaches its full risk rate, the premium rate increases stop. [152]

223. Catastrophe models, as well as historical loss activity and the resulting NFIP debt level (currently $20.525B), have indicated that there was an overall deficit in the aggregate premium that had been collected. NFIP rates must be actuarial, meaning that they must provide for all costs associated with the transfer of risk. To provide for all costs, the NFIP must increase premiums. As such, FEMA would have had to raise flood insurance premiums regardless of which rating approach was applied – the legacy rating approach or Risk Rating 2.0.

224. Under the old 1970s legacy rating, FEMA could not differentiate, to a sufficiently granular degree, how to target those premium rates increases to policyholders. Legacy rating utilized a very limited set of rating factors, which meant that premium increases were carried out through a blunt, coarse instrument that did not allow for sufficient differentiation of risk. As a result, premium increases were spread across wide segments of policyholders, even if the flood risk for some policyholders within that segment did not warrant an increase. In sum, all rates within

a broad rating class would have to be uniformly raised, regardless of whether this increase was warranted by the actual flood risk to each specific property within that rating class.

225. Under Risk Rating 2.0, on the other hand, the necessary increases in premium are distributed more equitably so that policyholders are paying for their *own* exposure to flood risk.

226. In addition to the inequitable distribution of premium among policyholders, legacy rating was also inequitable because there was no mechanism for stopping the annual premium rate increases once a property reached its full risk rate. Under both Risk Rating 2.0 and legacy rating,

[152] Rate updates typically result in minor changes to prices for most policies.

premium rate increases are capped at annual increases of 18% for most policyholders. But **with legacy rating, FEMA would have had to continue applying these premium rates increases indefinitely.**

227. Upon implementation of Risk Rating 2.0, 19% of single-family home policies had already reached or exceeded their property-specific full risk rate and were in fact paying more than their full risk rate using the 1970s legacy rating. These policyholders saw decreases in their premium when they renewed their policies because of implementation of Risk Rating 2.0. Under legacy pricing, they would have continued to see annual premium increases.[153]

228. As of May 2023, **36% of current NFIP policyholders, nationwide, are already paying a risk-based premium so they will not be subject to further annual increases in flood insurance premiums**,[154] barring any changes to their coverage and deductible levels or to the floor risk of the insured property. Under the legacy pricing, they would continue to see annual premium increases. Next year, even more policyholders will reach their full risk rates. In fact, **FEMA expects 50% of all NFIP policyholders to be paying their full risk rate by 2025-2026.**

229. If FEMA is required to return to the 1970s legacy rating, NFIP policyholders will again be subjected to annual premium increases indefinitely.

4. Policyholders in Lower Value Homes Will Continue to Subsidize Policyholders in Higher Value Homes

230. Moreover, due to the cross-subsidization employed by the old rating, a return to the legacy rating would be an unfair financial burden for the policyholders with lower value homes who would be forced once again to pay more than their fair share to subsidize other policyholders

[153] For example, in St. Tammany Parish, with 45,240 policies, 3,894 of those policies (9%) saw an immediate decrease in premiums upon their first renewal under Risk Rating 2.0. An additional 42,267 (93%) saw either a decrease or increase of $20 per month or less. With legacy rating, all of these policies would have been subjected to premium rate increases indefinitely.

[154] See fn. 39.

with higher value homes with higher flood loss exposure. The perpetuation of this continued inequity is inconsistent with the statutory mandate to apply full risk rates to flood insurance policies, and it is inconsistent with the principles of good government as well.

5. Policyholders with Significant Differences in Flood Risk Will Continue to Pay the Same Premium, While Policyholders with Similar Flood Risk Will Pay Different Premium Amounts

231. If Risk Rating 2.0 is enjoined and FEMA returns to the 1970s legacy rating's dependence on the two primary considerations of a structure's location - in or outside of the SFHA and its elevation with respect to the base flood, premium inequities will continue. Policyholders in the same zone will pay the same amount of premium, even though there may be substantial variation in the flood risk within that zone or across all of the properties in that same zone in the country. This means low-risk policyholders will subsidize higher risk policyholders within the state (e.g., North Louisiana's subsidization of South Louisiana) and across states (e.g., policyholders in non-coastal states subsidizing the risk of policyholders in coastal states).

6. Policyholder Premiums Will No Longer Reflect Flood Risk Reduction Provided by Non-Accredited Levees

232. Reverting back to the 1970s legacy rating would preclude FEMA from pricing premiums that reflect the flood risk reduction that each individual levee provides based on its unique characteristics. FEMA would have to return to an approach in which only levees accredited as providing risk reduction from the 1% annual chance of flood would be considered when pricing insurance instead of an approach, pursuant to Risk Rating 2.0, that acknowledges the level of risk reduction provided by a levee, regardless of whether or not it is accredited, in establishing premium rates. As such, the flood risk reduction provided by non-accredited levees would not be reflected in premium rates if the NFIP were forced to revert back to the legacy rates.

7. Some Policyholders Will Continue to Pay Premiums in the Range of $15,000-$40,000

233. If the implementation of Risk Rating 2.0 is enjoined, flood insurance premiums would continue to increase indefinitely. With Risk Rating 2.0, FEMA established an upper bound that limits costs on the highest end of the spectrum. This means that no single-family home policies will see a premium of more than $12,125.

234. Under legacy rating, flood insurance premiums could go higher than $55,000 for a single-family home.

235. If FEMA reverted back to the 1970s legacy rating, inequitable rates would have remained in place, and many policyholders would have continued to pay more than they should.

8. Policyholders in Non-Coastal States Will Continue to Subsidize Policyholders in Coastal States

236. As discussed above, according to CBO, policyholders in inland counties were subsidizing policyholders in coastal counties.[155] Policyholders in Louisiana, Florida, Mississippi, and Texas were, on average, paying some of the lowest flood insurance premiums in the nation. The 1970s legacy rating resulted in an inequitable program that put the cost of flood risk in a few coastal states on the policyholders in the other states and on the taxpayers.

237. If Risk Rating 2.0 were enjoined, policyholders in 40 states would have to pay more so that policyholders in the high flood risk areas of Louisiana, Florida, Mississippi, and Texas could pay a lot less.

238. This inequity not only existed across states, but within states. While policies in the coastal parishes of southern Louisiana have been historically underpriced, policies in the non-coastal parishes of northern Louisiana were not as severely underpriced as the policies in southern

[155] See, generally, Congressional Budget Office, "The National Flood Insurance Program: Financial Soundness and Affordability" (September 1, 2017), 1, at https://www.cbo.gov/publication/53028.

Louisiana. **In fact, a substantial number of policyholders in northern Louisiana parishes are seeing premium decreases, meaning that they were overpriced under the legacy rates.** For example, in Tensas Parish, nearly all policies (94%) saw an immediate decrease in premium upon their first renewal under Risk Rating 2.0. A reversion to the legacy rates would mean an increase in premium for all 94% of NFIP policies in that parish. Similarly, 85% of policies in Bossier Parish and 85% of policies in Catahoula Parish also saw immediate decreases under Risk Rating 2.0, which would not have occurred with legacy rates. Rather, all of these policies would have seen increases in their premiums.

239. If Risk Rating 2.0 were enjoined, all 94% of the policyholders in Tensas Parish would have to pay an additional amount in premium to retain their same level of coverage or their coverage would be reduced.[156] Likewise, all 86% of policyholders in Bossier and Catahoula Parishes would have to pay an additional amount in premium to retain their same level of coverage or their coverage would be reduced. Indeed, any NFIP policyholder across the nation who saw a premium decrease this year would have to pay an additional amount in premium to retain their same level of coverage or their coverage would be reduced.

B. Continued Financial Instability and Insolvency of the NFIP Harms Taxpayers

240. Over the last 50 years, FEMA has collected $60 billion in NFIP premiums, but has paid $96 billion in costs (including losses, operating expenses, and interest). To state that another way, the NFIP's cumulative costs have exceeded what its policyholders have been paying in premiums by approximately 60%.

241. Since the catastrophic 2005 hurricanes, the NFIP has been in significant debt, and the accruing debt has only gotten worse since then, in part due to the fact that the program is unable

[156] See 44 C.F.R. Pt. 61, App. A(1), article VII.G.

to make payments towards the debt given the lack of sufficient capital from flood insurance premiums that is required for the program to operate at its intended level.

242. FEMA's debt obligation is limited to $30.425 billion, and its current debt is $20.5 billion.[157] The NFIP currently pays $619 million in annual interest payments and has paid a cumulative total of $5.865 billion in interest on the debt since Hurricane Katrina. FEMA's debt remains substantial, even after Congress cancelled $16 billion of FEMA's debt in October 2017.

243. The burden of this debt has historically fallen on the taxpayers. When Congress cancels NFIP debt, that debt is effectively transferring the financial burden of flood risk from policy holders to the public at large.[158]

244. As discussed above, the CBO released a 2017 report on the fiscal soundness of the NFIP in which it estimated that the NFIP had an expected one-year shortfall of $1.4 billion., The CBO largely attributed the $1.4 billion annual shortfall to premiums' falling short of expected costs in coastal counties, which constitute roughly 10 percent of all counties with NFIP policies but account for three-quarters of all NFIP policies nationwide. [159] According to the CBO, the net shortfall measured over all coastal counties is $1.5 billion, whereas the net surplus measured over all inland counties is $200 million.

245. Should the Court enjoin the implementation of Risk Rating 2.0, FEMA would no longer be on the path to fiscal soundness. It would continue to operate the NFIP at a loss and continue to rely on taxpayer-funded loans to maintain the program.

246. During the pendency of any suit, it is possible the program could reach the

[157] The authorization for this borrowing would be reduced to $1 billion after September 30, 2023, were the NFIP to be allowed to lapse.
[158] See U.S. Government Accountability Office (GAO), National Flood Insurance Program, at http://www.gao.gov/highrisk/national-flood-insurance-program.
[159] See Congressional Budget Office, "The National Flood Insurance Program: Financial Soundness and Affordability" (September 1, 2017), pgs. 1-2, at https://www.cbo.gov/publication/53028.

Congressionally authorized debt limit, jeopardizing the operation of the entire program, including flood mapping and hazard mitigation programs, which are funded in part by the Flood Insurance Fund.

247. This not only puts individual policyholders at risk, but the general public as well. As the GAO pointed out in its 2013 testimony before the U.S. Senate Subcommittee on Economic Policy, Committee on Banking, Housing, and Urban Affairs, "[g]etting the NFIP on a sound footing, both financially and operationally, is important to achieving its goals and at the same time reducing its burden on the taxpayer."[160] A return to legacy premium rates would harm the taxpayers, who may again be compelled to fund the cancellation of the NFIP's debt because those who live in high risk coastal counties (or parishes) are not paying premium rates that reflect the full risk to their properties.

C. An injunction will violate FEMA's statutory mandate to issue full risk, actuarial rates

248. The National Flood Insurance Act of 1968 (NFIA), as amended, 42 U.S.C. §§ 4001 *et seq*., sets forth the requirements for establishing premium rates pursuant to the NFIP. To implement the NFIP, among other measures, FEMA is required to estimate premium rates.

249. Section 4014 tells the NFIP how to estimate rates. Under 42 U.S.C. § 4014(a)(1)(A), risk premium rates must be "based on consideration of—

> (i) the risk involved and accepted actuarial principles; and
> (ii) the flood mitigation activities that an owner or lessee has undertaken on a property, including differences in the risk involved due to land use measures, floodproofing, flood forecasting, and similar measures…."
> (iii) to include, operating costs, allowances, and administrative expenses, and a separate policy fee to cover floodplain management and mapping expenses.

[160] See U.S. Government Accountability Office Testimony Before the Subcommittee on Economic Policy, Committee on Banking, Housing, and Urban Affairs, U.S. Senate, "National Flood Insurance Program: Continued Attention Needed to Address Challenges" (September 18, 2013), at https://www.gao.gov/assets/gao-13-858t.pdf.

250. The premium rates must also account for the operating costs and allowances of the program, the administrative expenses of carrying out the program, the Federal Policy Fee,[161] and "all costs, as prescribed by principles and standards of practice in ratemaking adopted by the American Academy of Actuaries and the Casualty Actuarial Society…."[162]

251. Subject to annual increase premium caps, the NFIA also dictates the rates FEMA is required to charge policyholders. As discussed above, with limited exceptions, FEMA is required to charge Post-FIRM properties and certain Pre-FIRM properties actuarial rates.[163]

252. In sum, rates should be risk-based, actuarially sound so as to cover expected losses, sufficient to cover the costs of running the program, and reasonable.

253. Moreover, as discussed above, the NFIA requires that NFIP risk premium rates for flood be estimated in adherence with the principles and standards of practice in ratemaking adopted by the American Academy of Actuaries and the Casualty Actuarial Society.[164]

254. As such, FEMA must adhere to the Casualty Actuarial Society's Statement of Principles of Property and Casualty Ratemaking.[165] These principles of ratemaking define and require actuarially sound rates to be "reasonable, not excessive, not inadequate, and not unfairly discriminatory."[166] Legacy rates were inadequate because the program only accounted for a limited range of flood risk and, therefore, could not collect adequate premiums to cover future losses. The failure to account for a complete range of flood risk, such as less frequent but more severe flood

[161] The Federal Policy Fee is a flat charge that the policyholder must pay on each new or renewal policy to defray certain administrative expenses incurred in carrying out the NFIP.
[162] 42 U.S.C. § 4015.
[163] See 42 U.S.C. 4015(c),(e); 4014(a)(2)(prohibits FEMA from charging certain Pre-FIRM properties less than actuarial rates, unless the property was insured prior to 2012, in which case, for those Pre-FIRM rated properties, FEMA is required to increase those premiums by 25% a year until the property reaches its actuarial rate.
[164] See 42 U.S.C. § 4014 (a)(1)(B)(iv).
[165] See, generally, Statement of Principles Regarding Property and Casualty Insurance Ratemaking, adopted by the Board of Directors of the Casualty Actuarial Society (May, 1988), at https://www.casact.org/sites/default/files/2021-05/Statement-Of-Principles-Ratemaking.pdf.
[166] Id., Principle 4, at 2.

events (e.g., Superstorm Sandy) or heavy rain events (e.g., Hurricane Harvey) resulted in less than adequate rates and debt owed to the U.S. Treasury. Additionally, a rating system that does not account for known differences between individual property characteristics (e.g., replacement cost value) that are correlated with expected losses will result in excessive and unfairly discriminatory rates for hundreds of thousands of policyholders with lower-valued structures in less risky areas.

255. FEMA is also required by statute to issue premium rates in adherence with the Actuarial Standards of Practice (ASOPs), which were adopted by the American Academy of Actuaries and Casualty Actuarial Society, in establishing premium rates pursuant to 42 U.S.C. § 4014. Three of the most relevant ASOPs are:

- ASOP 12: The Risk Classification standard requires that rates are based on sufficiently homogeneous groups to avoid adverse selection caused by undercharging high risk policyholders. [167]
- ASOP 39: This standard addresses Catastrophe Losses in Property/ Casualty Insurance Ratemaking, providing requirements for supplementing historical data with other sources of information such as modeling to account for differences between historical and future exposures and to ensure that rates capture the expected costs of low frequency events. These considerations are especially important for the NFIP ratemaking approach because historical claim experience has not been representative of recent floods events. [168]
- ASOP 53: This standard addresses estimating Future Costs for Prospective Property/Casualty Risk Transfer and Risk Retention. It also prescribes the

[167] See. Actuarial Standard of Practice No. 12 Risk Classification, at http://www.actuarialstandardsboard.org/wp-content/uploads/2014/07/asop012_101.pdf.
[168] See Actuarial Standard of Practice No. 39, Treatment of Catastrophe Losses in Property/Casualty Insurance Ratemaking, https://www.actuarialstandardsboard.org/wp-content/uploads/2014/02/asop039_156.pd f.

> requirement for actuaries to determine the extent to which historical loss and loss adjustment expenses are appropriate as a basis for estimating future costs. In estimating future costs related to loss and loss adjustment expenses, the actuary should consider adjusting historical data using methods or models, along with reasonable assumptions, that, in the actuary's professional judgment, reflect the ultimate value of the loss and loss adjustment expenses.[169]

256. In addition to these specific ASOPs, FEMA would have to comply with the Casualty Actuarial Society's ratemaking principles in issuing premium rates, which require above all else, rates must be reasonable and not excessive, inadequate, or unfairly discriminatory. If FEMA were required to re-implement legacy rates, it would do so in violation of both the Casualty Actuarial Society's Statement of Principles and ASOPs 12, 39, and 53, and, as such, in violation of its statutory mandates under the NFIA.

257. With the use of catastrophe modeling and the widening gap between losses paid and premiums collected, it became apparent that the 1970s legacy rates were no longer actuarially sound– that it does not use utilize available technology and information about flood risks– and, therefore, is not a legally appropriate approach moving forward. Once FEMA actuaries understood that there are better tools and information available to understand the risks associated with flood, they no longer have the option of issuing rates utilizing legacy rating.

258. FEMA actuaries cannot ignore the risks identified through the procurement of better information and a more refined approach using available technology and information. Professionally, FEMA actuaries are obligated to adopt this better information into their analyses. To comply with the NFIA, FEMA had to revise its premium rate-setting approach, and FEMA

[169] See Actuarial Standard of Practice No. 53, Estimating Future Costs for Prospective Property/Casualty Transfer and Risk Retention, at https://www.actuarialstandardsboard.org/wp-content/uploads/2018/01/asop053_190.pdf.

engaged in studies to identify better approaches to identifying flood risk. After years of study, FEMA developed and implemented Risk Rating 2.0.

259. In short, FEMA is legally required to establish rates that are "adequate, based on accepted actuarial principles, to cover the average historical loss year obligations incurred by the National Flood Insurance Fund." The NFIP's legacy rates were no longer meeting this standard. Enjoining the implementation of Risk Rating 2.0 premium rates would compel the agency to violate its own statutory mandates.

D. Harm to FEMA

1.Time and Cost to Dismantle Risk Rating 2.0 Implementation and Reestablish Systems, Infrastructure, Guidance, and Training to Bring Back 1970's Legacy Rates

260. Since 2017, hundreds of FEMA staff, over a dozen contractors pursuant to over two dozen different contracts, thousands of staff and insurance agents from the 47 WYO companies participating in the NFIP, and 5 vendors have worked on the development and implementation of Risk Rating 2.0.

261. This effort has cost the federal government over 80 million dollars,[170] all of which would be wasted if the implementation of the current rates were permanently enjoined.

262. Additionally, if Risk Rating 2.0 were preliminarily or permanently enjoined, FEMA would have to engage in a multi-year effort to re-implement the 1970s legacy rating that would cost even more.

263. If FEMA is required to undo the implementation of Risk Rating 2.0, FEMA would have to re-procure the contracting and vendor support necessary to re-implement the old legacy rating. Many new contracts would have to be solicited, negotiated, awarded, and executed to

[170] Notably, unlike the total costs for the WYO Companies, this amount does not include an accounting of FEMA staff time spent on this initiative, even though staff salaries are paid for by the Federal Policy Fee.

design and implement the old legacy rates. This would include contracts for actuarial support, standard operations, Information Technology, Financial Management, Training, marketing, communications, and others. There would be tremendous sunk costs involved with work already done, with work that has to be redone, and costs associated with re-negotiating the scope of existing contracts. This cost would be very high across many contracts.

264. To actually re-implement the old legacy rates, FEMA would first have to determine how to obtain elevation certificates (ECs) for existing policyholders. The legacy rating required policyholders in the SFHA built after the initial Flood Insurance Rate Map to provide ECs that were used to determine elevation relative to the Base Flood Elevation, a significant driver of the old legacy rating. Any new policies in the Special Flood Hazard Area since the implementation of Risk Rating 2.0 would require an EC, which would be a cost to property owners of between $500 and $2,000 (the average cost is ~$600).

265. FEMA would need to establish new guidance and communications to implement a new mid-policy requirement that the policyholder provide an elevation certificate. Even assuming the NFIP has the legal authority to change the insurance contract after the fact and place a new and expensive requirement on the policyholder – and it does not have that authority – the procurement of these elevation certificates is likely to be a very protracted process.

266. Moreover, this would be an added expense to these policyholders, and some policyholders may prefer not to purchase flood insurance rather than incur this additional expense. Accordingly, FEMA would have to determine how to rate a flood insurance policy without the data needed to rate the policy, and program rules and guidance would need to be developed to address these situations.

267. FEMA lacks the authority to establish and implement a new policy requirement in the

middle of the policy term, but this could be applied upon policy renewal. With that qualification, the development and implementation of this new requirement would take 6-9 months (although its application would take much longer since the ECs could only be obtained at policy renewal).

268. FEMA would then need to undertake an entirely new analysis of the rates pursuant to the 1970s legacy rating methodology. The legacy premium rates no longer meet the current standards of the Casualty Actuarial Society (CAS), which is a requirement of any actuarial-based rating plan. Also, because none of the actuaries who worked with the 1970s rating methodology are still employed by FEMA, time, resources, and training would be required for the actuaries to learn the old, legacy rating methodology so that they could carry out necessary analysis and updates. FEMA expects that completion of the rating analysis would take 9-12 months.

269. Once the rates were set, FEMA would need to revise existing guidance, including the Flood Insurance Manual, and update forms pursuant to the OMB data collection process. To do this, FEMA would need to develop "transition" guidance to revert policies back to legacy rating. This new guidance would require analysis, potential stakeholder engagement, and legal and organizational concurrence. Consideration would be needed for each transaction type (quote, application, renewal, endorsement, cancellation) and the impact that on each that reverting back to legacy rating would have. To comply with Paperwork Reduction Act requirements, FEMA would need to update its collection with the Office of Management and Budget (OMB) for the flood insurance application form to capture the data needed to rate with the legacy methodology. OMB form updates usually take at least a year. As such, FEMA expects these revisions would take at least 12 months to implement.

270. Utilizing the revised guidance, FEMA would then implement system updates to program the methodology and data set in Pivot. Pivot is the NFIP's System of Record, and it is

responsible for receiving and validating each and every transaction from WYOs and NFIP Vendors to ensure all policies are valid, properly rated, and recorded. Even if the previous methodology were reinstated, significant IT resources and time would be required to rebuild the rating engine and then design, test, and implement the new rating engine. In total, FEMA expects these system updates would take 12-18 months to put in place on the FEMA side, and concurrent development and testing must be done on the WYO and NFIP Vendor side to ensure all systems can generate, receive, and store accurate information for all policies. Historically, much smaller changes have taken over 6 months to fully implement due to the need for rigorous design, testing, and implementation by the entire WYO and NFIP Vendor partners.

271. After the rates were established, the forms and guidance revised, and the systems updated, FEMA would need to undertake an extensive training effort for FEMA staff and WYO company staff, insurance agents, NFIP vendors, lenders, and community officials. FEMA expects this comprehensive training effort would take 12 months to implement.

272. FEMA would need to do an extensive communication effort throughout the process to ensure that all of its stakeholders, including FEMA staff, WYO companies, vendors, insurance agents, policyholders, legislators, and community officials, are apprised of the changes and have the information they need to plan accordingly. This additionally effort would include handling the heavier call volume at the FEMA Mapping and Insurance eXchange (FMIX) Customer Care Center. Just as FEMA saw a substantial increase in call volume as a result of the implementation of Risk Rating 2.0,[171] an even higher increase in call volume would be expected if Risk Rating 2.0 were dismantled shortly after its implementation to return to the legacy rates.

273. FEMA estimates that the cost of this multi-year effort by FEMA - excluding the efforts

[171] See FEMA, "Risk Rating 2.0 (RR 2.0) – A Year in Review"

and expenses of the WYO companies discussed below - would be $100-150 million.

2. Impeding FEMA's Ability to Carry Out the Mission of the NFIP

274. In establishing the NFIP, Congress found that "(1) a program of flood insurance can promote the public interest by providing appropriate protection against the perils of flood losses and encouraging sound land use by minimizing exposure of property to flood losses; and (2) the objectives of a flood insurance program should be integrally related to a unified national program for flood plain management… ."[172] However, if FEMA is compelled by the court to dismantle Risk Rating 2.0 and all the systems and infrastructure in place and communicate to the public that this major initiative – 5 years in the making – must be put on hold indefinitely pending the outcome of litigation, it will erode the public's trust in FEMA.

275. For the 19% of single-family home policies nationwide who saw their flood insurance premiums decrease and who now know they had been overpaying to subsidize higher risk, higher value homes, there will be a loss of trust. These policyholders will know that they are being charged more than their fair share, and they may decide that they simply cannot trust a federal agency that would knowingly charge them more in premiums than is warranted by the risk. These policyholders may decide to leave the program.

276. If these low-risk policyholders leave the program, this would, of course, lead to a decrease in premium, but the decrease in expected losses would not be as great as the decreases in premiums. When premium collected falls below expected losses, this results in a premium deficit. The reason for this is that low-risk policyholders would have paid premium amounts that are greater than their expected losses. As a result, the average expected loss for the remaining policyholders would be higher, and premiums would be increased even further for everyone to

[172] 42 U.S.C. § 4001(c).

account for the increase in the average expected loss. Without a change in insurance pricing, the NFIP would once again face the legacy rating dilemma of imposing rate increases on **all** policyholders year after year. This cycle would likely continue indefinitely, pushing premiums higher and higher, trapping the NFIP in a cycle of higher rates and worsening financial results.[173]

277. For the WYO companies that, as discussed below, were required to expend funds and staff in excess of what was provided for in the WYO expense allowance to establish and implement Risk Rating 2.0, only to have to dismantle it months later, there will be a breach of trust. Many companies may find that it no longer makes sense to partner with the federal government, at least not until there is sufficient stability to ensure that they can still have a productive partnership with the federal government. Indeed, it may make more sense for some of these companies to leave the NFIP altogether pending the outcome of the litigation to avoid the time and expense of dismantling and rebuilding their systems and infrastructure multiple times.

278. For the taxpayers that funded $16 billion in NFIP debt when that debt was cancelled in October 2017,[174] and for the members of Congress who represent those taxpayers and who are currently considering whether to reauthorize the NFIP in the fall, there is a breach of trust. Congress sent a very clear message in BW-12 and HFIAA that the NFIP must move towards full-risk rates so that the taxpayers would not have to continue to fund program shortfalls. If the NFIP continues to drain funds from the Federal Treasury to subsidize the high flood risk of coastal properties, Congress may find that the NFIP is no longer a program that is operating in the public interest. Congress may choose not to reauthorize the program, may only provide a short-term reauthorization, or may provide a short-term extension. Short-term reauthorizations and extensions

[173] Notably, this phenomenon is unique to the legacy rating approach since Risk Rating 2.0 charges property-specific premium rates on all properties, regardless of how many policyholders leave the program.
[174] See FEMA, "Rising Interest Expenses", at https://www.fema.gov/case-study/rising-interest-expenses#:~:text=The%20NFIP%20exhausted%20its%20borrowing,%241%20million%20in%20interest%20daily.

are disruptive and cause existing and potential policyholders to lose confidence in the NFIP as a reliable insurance program available to protect their homes and contents from the risk of flooding.

279. For the FEMA program staff that have committed themselves to a mission of identifying the flood risk, communicating the flood risk, and assisting communities and individuals in mitigating that flood risk, this is a breach of trust. It is contrary to FEMA's mission to identify flood risks and fail to communicate with the public about that flood risk and how it can be mitigated. It is contrary to FEMA's ethos to knowingly administer the program in violation of the National Flood Insurance Act. It is contrary to FEMA's values to implement the program in an inequitable and arbitrary manner. It will be difficult to recruit and retain program staff when employees do not feel the work they do is valuable or consistent with their values.

280. Additionally, the intensive effort and staff levels that would be required to dismantle Risk Rating 2.0 and reestablish a rating approach from the 1970s would mean that a lot of staff currently devoted to carrying out the NFIP mission and to enhancing and improving the NFIP would not get that work done.

281. In addition to the normal business of the NFIP that will be substantially delayed, some of the new initiatives that might not happen, or may be substantially delayed, if staff had to be diverted to carrying out an injunction would include the following:

a. Direct to Customer (D2C)

- **What is it**: D2C is about developing and/or enabling capabilities that provide more policy and risk information direct to policyholders. Specifically, this includes allowing policyholders to more directly quote, purchase, and service their own flood insurance policy.
- **What would happen**: FEMA is in the exploratory stages of this initiative but

recognizes the transformational nature of Risk Rating 2.0 and its ability to provide more direct access to policyholders. Carriers are in the initial stages of offering this experience. If program staff were diverted to dismantle Risk Rating 2.0, work on this initiative would be suspended.

b. Installment Plans

- **What is it:** Currently, policyholders who do not escrow their flood insurance policy must pay their premium in full at the time of new business or renewal. This initiative would create a monthly installment plan payment option for these policyholders.[175]
- **What would happen**: If Risk Rating 2.0 were to be enjoined, then all technical and operational resources allocated for this effort by FEMA and the WYO companies would have to be diverted from this effort. This would delay installment plans for many years.

c. CRS Redesign

- **What is it:** CRS Redesign is an initiative to modernize the Community Rating System (CRS) to align with the long-term goals of reducing flood risk within communities.
- **What would happen:** Risk Rating 2.0 provides more CRS discount opportunities for communities than were available under the old legacy methodology. Dismantling Risk Rating 2.0 would stop the forward progress on CRS Redesign and require the agency to halt all the work on CRS Redesign and re-think the entire initiative in light of a return to legacy rating.

d. Future of Flood Risk Data

[175] See 42 U.S.C. § 4015(g).

- **What is it:** FEMA's Future of Flood Risk Data (FFRD) initiative leverages new technologies to provide a more comprehensive picture of the nation's flood hazards and flood risk. Providing more comprehensive hazard and risk information complements the improvements in flood risk communication being advanced through Risk Rating 2.0 and offers a basis for a range of outcome-oriented regulatory and non-regulatory products. FEMA's 4 key objectives for the FFRD initiative are to: (i) shift from a binary to a graduated risk analysis; (ii) ensure a significant and appropriate role for the private sector and state, local, tribal and territorial entities; (iii) increase access to flood hazard data to improve resulting mitigation and insurance actions, and (iv) modernize the management and delivery of flood hazard and flood risk information.[176]
- **What would happen:** An injunction of Risk Rating 2.0 would return the program to the old legacy methodology's paradigm of evaluating risk based upon a binary understanding of a single flood hazard, rather than through a more appropriate and actuarially sound graduated risk analysis. Due to the limitations of the old legacy methodology, the FEMA rate setting team would be inhibited from collaborating with the flood mapping program and their state and local partners to incorporate more comprehensive flood hazard and flood risk information derived via FFRD into future enhancements to the annual rating update process, and instead, invest time and resources into reverting back to an outdated rating approach. Among other things, this would also preclude FEMA from pricing premiums that reflect the flood risk reduction that each individual levee provides based on its unique characteristics, whether accredited or not.

[176] See FEMA, "The Future of Flood Risk Data" (September 25, 2020), at https://www.fema.gov/fact-sheet/future-flood-risk-data-ffrd.

e. Homeowner Quote Integration

- **What is it:** One of the long-term opportunities Risk Rating 2.0 affords is integration with homeowner's insurance quoting process. This is because the Risk Rating 2.0 question set for establishing premium quotes is very similar to the information collected for homeowner insurance policies.
- **What would happen:** An injunction of Risk Rating 2.0 would end this effort.

E. Harm to WYO Companies and NFIP Direct

282. As discussed above, flood insurance under the NFIP is sold to property owners located in NFIP communities through two mechanisms: (1) NFIP Direct; and (2) the "Write Your Own" (WYO) program.

283. The NFIP Direct is a program established by FEMA to allow any insurance agency or agent the opportunity to write flood insurance coverage directly with the Federal government even if they are not affiliated with WYO flood insurance company. FEMA relies on a contractor, the NFIP Direct Servicing Agent, to service all NFIP Direct policies and pay claims on behalf of FEMA.[177]

284. The WYO Program was established in 1983, and there are currently 47 property and casualty insurance companies participating in this program. Under the WYO Program, FEMA enters into a standard Financial Assistance/Subsidy Arrangement (Arrangement) with private insurance companies to sell flood insurance policies and adjust flood insurance claims under their own names. WYO companies serve as intermediaries in providing flood insurance. The flood insurance policies issued under the NFIP are called Standard Flood Insurance Policies (SFIP). FEMA regulations establish the contractual terms, rate structures, and premium costs of SFIPs,

[177] See, generally, 44 C.F.R. § 62.3.

but WYO companies issue SFIPs in their own name and handle claims adjustments.[178]

285. Each year, at least six (6) months before the effective date of the Arrangement, FEMA must publish in the Federal Register, and make available to the WYO Companies, the terms for subscription or re-subscription to the Arrangement.[179] This includes the terms and conditions of compensation under the Arrangement.

286. FEMA compensates WYO companies for their marketing, administrative, and operating costs by allowing them to withhold a percentage of the premium they collect from policyholders. This is known as the WYO expense allowance. Additionally, FEMA provides compensation for loss adjustment expenses associated with claims pursuant to a fee schedule.[180]

287. WYO companies and the NFIP Direct have a tremendous role in the administration of the NFIP and will be severely harmed by an injunction. The WYO companies service 87.5% of the nation's flood insurance policies under the NFIP. FEMA directly services the remaining 12.5% of policies through the NFIP Direct side.

1. Time and Cost for WYO Companies and NFIP Direct to Implement Risk Rating 2.0

288. Currently, the NFIP Direct Servicing Agent and the WYO companies have incurred significant expenses for implementation of Risk Rating 2.0. FEMA estimates[181] that the WYO Companies incurred costs of $150-200 million dollars in implementing Risk Rating 2.0. Additionally, pursuant to vendor contracts entered into for the implementation of Risk Rating 2.0 with the 5 vendors that service NFIP policies. FEMA estimates that the WYO company vendors and the NFIP Direct Servicing Agent have already incurred costs of $60-$80 million. Those costs

[178] See, generally, 44 C.F.R. § 62.23.
[179] See 44 C.F.R. § 62.23(a).
[180] See 44 C.F.R. § 62.23(i)(3).
[181] Estimates in this section of the document are based on discussions with staff from FEMA, NFIP Direct, the WYO companies, and the vendors.

would be a complete loss should the implementation of Risk Rating 2.0 be enjoined during the pendency of any suit, even if the ultimate outcome was favorable to FEMA.

289. As discussed above, WYO Companies are provided an expense allowance as compensation for all of the Company's marketing, operating, and administrative expenses. Notably, because the amount of the WYO expense allowance is required to be published 6 months in advance in the Federal Register, and cannot be altered afterward,[182] it could not be adjusted to account for the WYO Company's expenses incurred in implementing Risk Rating 2.0. As such, those expenses went largely uncompensated.

290. WYO Companies also spent a lot of time implementing Risk Rating 2.0. To implement Risk Rating 2.0, FEMA estimates that the WYO companies had to increase staffing by about 50%. This labor effort included time spent on communications, training of staff and agents, and developing new servicing processes to implement Risk Rating 2.0. There were also indirect staffing needs associated with Risk Rating 2.0, such as increases in call/online chat volumes from policyholders and agents prior to and during the implementation of Risk Rating 2.0, which necessitated the hiring of additional staff to handle these additional questions while continuing to service and respond to the standard set of questions received prior to the implementation of Risk Rating 2.0.

2. Time and Cost for WYO Companies and NFIP Direct to Dismantle Risk Rating 2.0 and Re-Implement 1970s Legacy Rating System

291. Risk Rating 2.0 took many years, thousands of hours of staff time, and approximately $210-280 million dollars, including the cost of vendor services, for the WYO Companies and NFIP Direct Servicing Agent to implement. It would cost much more to dismantle Risk Rating 2.0 and

[182] See 44 C.F.R. §§ 62.23(a) and (i)(3).

return to the 1970s legacy system, and it would take a minimum of 3 years to fully implement.[183]

292. This would include re-solicitation and renegotiation of vendor contracts, numerous and time-consuming system updates, training/re-training of insurance agents, and re-underwriting approximately 4.7 million policies. There would also be additional costs for activities that are specific to the process of returning to the legacy system, including the cost of obtaining elevation certificates and additional policy information from policyholders, reforming policy coverage, issuing premium refunds, and recouping agent commissions. Additionally, depending on the scope of the proposed injunction, the WYO Companies and NFIP Direct Servicing Agent may have to issue policies pursuant to two different systems, which would be a cost multiplier that FEMA is unable to estimate at this time.

293. WYO Companies and NFIP Direct Servicing Agent would likely be required to double their current staff to meet the additional need. This would be an unreasonable financial burden on the WYO Companies in light of the reversal of the WYO allowance for some policies, extensive policyholder communications, the recoupment of agent commissions for certain policies, training costs, the costs passed down from the vendor for system updates, a likely increase in policy lapses due to frustration with the inconsistencies in NFIP flood rates, and possible loss of customers with flood policies and other lines due to damage to the customer's relationship with the company and/or the agent. The NFIP Direct Servicing Agent would also experience additional costs for extensive policyholder communications, staff and agent training, loss of agent commissions for certain policies, and a likely increase in policy lapses.

294. As discussed in more detail below, there would be a number of steps that the WYO Companies and the NFIP Direct Servicing Agent would have to undertake to dismantle Risk

[183] See Appendix A, American Property Casualty Insurance Association Letter to Kristina Pett (June 30, 2023).

Rating 2.0 and return to the old 1970s legacy system. Other than the initial communications with agents and policyholders, most of these steps would be taken after FEMA had taken the steps discussed in Paragraphs 260 through 270, which describe the actions FEMA must take to dismantle Risk Rating 2.0 and reimplement the old legacy system.

a. Communications with Agents and Policyholders

295. The WYO Companies and the NFIP Direct Servicing Agent would also need to communicate with the agents to advise them that Risk Rating 2.0 has been enjoined and the scope of that injunction so that the agents would understand what is expected of them with respect to the sale of NFIP flood insurance and to allow them to manage relationships with their customers.

296. The WYO Companies and the NFIP Direct Servicing Agent and/or the agents would need to send communications to all policyholders to advise them that Risk Rating 2.0 has been enjoined and what that means for policyholders, including the possibility of policy reformation, premium refunds, claims readjustments, and the need for tentative or provisionally rated policies. These communications would also include a request for elevation certificates, which are required under the old legacy system.

b. Renegotiation/Solicitation of Vendor Contracts

297. Dismantling Risk Rating 2.0 is more complicated than simply switching to a new computer program. It would require the removal of the current programming and the re-implementation of previous code on two completely different rating mechanisms. Legacy rating was based on tabled rates, and Risk Rating 2.0 is completed by a rating engine driven by FEMA.

298. The NFIP Direct Servicing Agent incurred significant unreimbursed costs for the initial implementation of Risk Rating 2.0 and likely would be unwilling to do so again. The contract in place between FEMA and the NFIP Direct Servicing Agent contained provisions that

prevented the DSA from charging additional fees for the implementation of Risk Rating 2.0 (since compensation was tied to the number of policies serviced by the vendor), the DSA would likely pass along the cost of returning to the old legacy system through a required additional payment due to the atypical requirements imposed by FEMA (which, under the contract, allows the vendor to charge more). Many WYOs would have similar provisions in their contracts which would result in similar required payments to their vendors. As such, FEMA estimates the vendor cost for re-implementing the legacy system would be double the cost of implementing Risk Rating 2.0.

c. Return to Decentralized Rating Engines

299. As discussed above, prior to Risk Rating 2.0, the WYO Companies and NFIP Direct used 4 different vendors. These 4 vendors created their own underwriting and rating engine to quote and issue policies in accordance with the rules for legacy rates. Additionally, one of the WYO Companies had its own rating engine, so there were 5 different rating engines utilized to generate premium rates. These multiple rate and rule engines, along with the old legacy rating's complexity, resulted in differences in premium rates based on which vendor system was utilized an/or the agent's level of expertise.

300. If Risk Rating 2.0 were enjoined, WYO companies would have to return to using the rating engines they utilized prior to implementation of Risk Rating 2.0. This would require the WYO companies to rebuild, or pay a vendor to rebuild, a rating and rules system that captures and stores legacy information and can perform new business, renewal, endorsement, and cancellation transactions.

301. A return to the use of decentralized rating engines would once again subject policyholders to inconsistent premium quotes based on which rating system was utilized and the level of their agent's expertise.

d. Obtaining Elevation Certificates and Other Information Needed for Legacy Rates

302. Under the old legacy system, the WYO Companies were required to obtain an elevation certificate (EC) on policies. As such, the WYO Companies and the NFIP Direct Servicing Agent would need to manually review each file to determine if there is an EC on file.

303. For policyholders without an EC on file, the WYO Companies and the NFIP Direct Servicing Agent would need to obtain an EC from the policyholder. This would be a cost to the policyholder of anywhere from $500-$2000 based on location (the average cost is $600).

304. The WYO Companies and the NFIP Direct Servicing Agent would also be required to follow-up if an EC is not received. If it is not received, they would have to tentatively rate the policy at a higher premium rate, which would require a reduction in coverage. If coverage is lowered and a claim had been submitted, the claim would have to be readjusted based on the re-underwriting of the policy.

305. For those policies for which there is an EC on file, the WYO Companies and the NFIP Direct Servicing Agent would still have to manually review them to see if they met the requirements the insurers would need to re-underwrite the policy.

306. The WYO Companies and NFIP Direct would also need to collect additional information that was collected for legacy rating, but not for the current rates, including information on attached garages, the location of insured contents, full machinery and equipment details, and usage of enclosures (finished vs. unfinished). Without this information, the WYO Companies and NFIP Direct could not determine the appropriate amount of legacy premium. If this information could not be obtained, the policy would have to rated using Provisional or Tentative rates, which would be approximately $13,200 in premium (exclusive of fees, assessments, and surcharges) for a slab on grade home.

e. Re-underwriting of Policies

307. Once all the contracts have been negotiated, the system have been updated, and the staff and agents have been trained, the NFIP Direct Servicing Agent and the WYO companies would need to re-underwrite all 4.7 M flood insurance policies. Utilizing the guidance for NFIP insurers discussed in Paragraph 269 the NFIP Direct Servicing Agent and the WYO Companies would need to implement a process to contact policyholders to either collect or validate information, establish and manage policyholder follow up, request additional premium, conduct policy reformation, and reissue updated policies. This underwriting effort would take approximately 12 months (after the guidance and process was developed) to complete to stand up the process and to conduct the re-underwriting effort at policy renewal.[184]

308. For policies in B, C, and X zones, the WYO Companies and the NFIP Direct Servicing Agent would have to manually review them to determine whether they are eligible for a Preferred Risk Policy or the Newly Mapped premium rate. Legacy rates for these policies had set coverage limits, whereas there were no such coverage limits under Risk Rating 2.0.

309. The WYO Companies and the NFIP Direct Servicing Agent would have to communicate with every policyholder to pick a rating combination and either bill for the additional premium, or refund the premium, as appropriate. It would require extensive communication to advise policyholders regarding the differences between the coverage and deductible under Risk Rating 2.0 and their new coverage and deductible.

310. In addition, approximately 90,000 policies were Submit-For-Rate policies under the

[184] The re-underwriting process is done at policy renewal to minimize the time required and the burden on the NFIP insurers (WYOs, vendors, insurance agents). If re-underwriting were to be performed all at once, NFIP insurers would need to significantly scale up operational resources to be able to handle the volume of requesting, processing, and managing the collection of policy information. This would divert staff and resources needed to address the other steps required to re-implement the old legacy system.

legacy rating system. These require manual rating and collection of extensive documentation such as an EC, a Statement of Variance, an Elevated Building Determination (EBD) form, etc. Manual rating was required to be updated each year, which would result in approximately 360,000 policy terms[185] being manually re-underwritten and manually rated.

311. Additionally, for all policies in which premium rates decreased under Risk Rating 2.0 would, the WFO Companies and the NFIP Direct Servicing Agent would have to re-underwrite the policy using the legacy rates. An additional premium notice would be sent to the policyholders. A notice would be sent to the policyholder requesting the additional premium and allowing the policyholder 30 days to pay the difference in premium between the policies issued under Risk Rating 2.0 and the policy issued using legacy rates.

312. If the additional premium is not received, policy coverage would be adjusted (lowered) based on the premium received. Any claim paid on that policy would have to be re-adjusted based on the lowered coverage on the policy, and any overpayment would have to be returned by the policyholder.

313. Many policyholders saw decreases over $50/month under Risk Rating 2.0, and a return to the legacy rates would mean these policyholders would have to pay a very high amount to keep the same level of coverage. Moreover, a percentage of policies not paying the additional premium would not have sufficient premium for any level of coverage. In such cases, the policy would be cancelled. Lenders would also receive notice of lowered and/or cancelled coverage, and they can force place policies due to insufficient building coverage.

314. Because policies for Condominium Associations saw very big premium decreases, a return to legacy rates would mean that these policyholders would have to pay a very high amount

[185] Based on a projected 3-year timeline for implementation of a return to legacy premium rates and starting from date of full RR 2.0 implementation.

to keep the same level of coverage. In addition, the increased premiums paid by mortgage companies would lower the escrow allotment and most likely increase mortgage payments for the policyholders.

315. For all policies with an increase in premium rates under Risk Rating 2.0, WYO Companies and the NFIP Direct Servicing Agent would need to re-underwrite the policies using legacy rates. Premium refunds would need to be generated based on the legacy rates. Any premium refunds generated would also have to be adjusted for agent commissions and WYO expense allowances. These premium refunds could result in large amounts of money being recouped from agent commissions and WYO expense accounts, which would be a financial burden to both agents and the WYO companies. Additionally, because vendors are paid based on premiums, funds would have to be recouped or refunded based on how much was owed to the vendor after the underwriting of the approximately 4.7 billion flood policies currently in force.

316. Notably, a return to legacy rating would also eliminate many of the rating improvement that made the underwriting process more efficient and streamline for agents, vendors, and policyholders. The process improvements that would be lost include:

a. Fewer questions for policyholders. Risk Rating 2.0 has only 8 rating questions, while the legacy system had up to 50 rating questions that varied based on the policy type.

c. Auto-population of information. The new methodology's reliance on data that is often easily accessible to policyholders and WYO companies means that WYO companies and NFIP Direct can often auto-populate the data, thereby streamlining and simplify the data collection process for all parties. Enjoining Risk Rating 2.0 would require the WYO Companies and NFIP Direct to return to collecting data to respond to complicated, outdated questions that would make these auto-populate capabilities obsolete.

d. Improved accuracy. Risk Rating 2.0's reliance on all carriers acquiring a quote from FEMA ensures greater consistency between WYO companies, thereby removing scenarios where policyholders receive different premiums when getting a quote from different agents or WYO companies.

e. No elevation certificate requirement. When legacy rating was in place, an elevation certificate was required for many policy types in order to get a premium. Elevation certificates are very expensive, ranging from anywhere from $500-$2000 based on location with an average cost of $600. Premium rates determined pursuant to Risk Rating 2.0 do not require an elevation certificate to rate the policy, thereby saving the policyholder money. Additionally, policyholders still have the option to get an EC and submit it to us to see if it will lead to a decrease in premium rates.

f. Claims Re-adjustments

317. All claims paid during Risk Rating 2.0 would have to be re-underwritten, and the claim would be re-adjusted based on the reverted policy. This could be based on overall eligibility and/or lowered coverage, both resulting in a negative situation for the policyholder.

318. Moreover, the lengthy process that would need to be undertaken to re-underwrite these policies means that claims would be held up for years. As discussed above, it would be almost two years before FEMA even had the knowledge, guidance, and processes in place to even determine what the legacy premium rates would have been for a policyholder. Currently, FEMA is unable to complete the claims process until it can verify accurate underwriting information and determine and collect the correct amount of premium on a policy. The chances of a disaster occurring in the next two years somewhere in the United States is a near certainty, and when that happens, the impacted communities will be less able to recover because they will not be able to have their claims

paid until FEMA can re-implement the legacy rates and collect all the information from the policyholder to determine the correct premium. This will lead to poorer disaster recovery, a lot of flood claims litigation, and bad outcomes in any community impacted by a disaster during that time period.

g. Staff/Agent Training

319. It has been three years since the WYO Companies and the NFIP Direct Servicing Agent began phasing in Risk Rating 2.0. The WYO Companies and the NFIP Direct Servicing Agent would need to re-train all internal flood staff, agents, and also other shareholders, such as realtors, lenders, etc. Additionally, because it has been three years, a significant number of WYO company staff and agents are new to the companies and have never been trained under the legacy rating methodology so they would require more extensive and comprehensive training than staff and agents who worked with legacy rates before.

320. This training would be extensive and would require educating the recipients of the training in both the legacy rates and Risk Rating 2.0 since knowledge of both would be required to re-underwrite all 4.7 billion policies.

321. Implementing these changes would be especially challenging for those with little or no experience implementing the legacy rating or agents who have moved from one vendor to another vendor since the transition to Risk Rating 2.0.

h. Customer Care

322. With the implementation of Risk Rating 2.0, FEMA estimate that call volume for the WYO companies increased between 30-40% in the first year and 20-30 % in the second year. The call volumes at the NFIP Direct call center also increased during the phase in of Risk Rating 2.0, but the increases were not as high. If Risk Rating 2.0 is enjoined and the WYO Companies and the

NFIP Direct Servicing Agent must revert back to legacy rates, these call volumes would be even higher due to the confusion caused by the unexpected changes.

3. Other Harms to WYO Companies and Agents

323. Flood policies can be a confusing product for the agents and consumers, which is actually one of the issues that Risk Rating 2.0 was implemented to address. Constant fluctuations in the program rules and premium rates increases that confusion and adds frustration. The WYO Company's name is on the Declaration Page, and the agent is the policyholder's point of contact on the policy. Policyholders may attribute that frustration to the WYO Carrier and/or their agent. This will not only affect the reputations of WYO Companies, but it will also affect the agent's reputation, with the chance of agents losing their customers entire book of business, not just the flood policy. Policies that received decreases in their premium rate under Risk Rating 2.0 that are now subject to increases will likely drop their policies now that they know they are paying more than they should based on the actual flood risk to their property.

324. This could also result in a large movement of flood policies from agent to agent, or from WYO Company to WYO Company, due to lack of trust. This would then make an already difficult situation of converting policies even more difficult with multiple WYO companies being involved in the transition.

325. Additionally, WYO companies and agents may be reluctant to continue selling and servicing policies for a program that, due to an injunction and the uncertainty of litigation, lacks the stability needed to ensure the reputations of the WYO companies are not harmed by the association. Enjoining the implementation of Risk Rating 2.0 may cause certain WYO companies to leave the program, which would create more obstacles for certain policyholders in securing adequate financial protection against flood risk.

I, DAVID I MAURSTAD Digitally signed by DAVID I MAURSTAD Date: 2023.08.07 18:16:11 -04'00', swear under the penalty of perjury pursuant to 28 U.S.C. Section 1746 that the above statements are true and correct to the best of my knowledge.