AFFORDABILITY OF
NATIONAL FLOOD INSURANCE PROGRAM PREMIUMS

REPORT 1

NATIONAL RESEARCH COUNCIL
OF THE NATIONAL ACADEMIES

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Committee on the Affordability of
National Flood Insurance Program Premiums

Water Science and Technology Board
Division on Earth and Life Studies

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NATIONAL RESEARCH COUNCIL
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This report was reviewed in draft form by individuals chosen for their breadth of perspectives and technical expertise in accordance with procedures approved by the National Academies Report Review Committee. The purpose of the independent review was to provide candid and critical comments to assist the institution in ensuring that its published report is scientifically credible and meets institutional standards of objectivity, evidence, and responsiveness to the study charge. The review comments and draft manuscript remain confidential to protect the integrity of the deliberative process.

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Although the reviewers listed above provided many constructive comments and suggestions, they were not asked to endorse the conclusions or recommendations, nor did they see the final draft of the report before its release. The review of the report was overseen by David Moreau, University of North Carolina, Chapel Hill; and Michael Goodchild, University of California, Santa Barbara. Appointed by the National Research Council, they were responsible for ensuring that an independent examination of the report was carried out in accordance with institutional procedures and that all review comments were carefully considered. Responsibility for the final content of the report rests with the author committee and the National Research Council.

Contents

Summary

The National Flood Insurance Program (NFIP), established in 1968 and housed within the Federal Emergency Management Agency (FEMA), offers insurance policies that are marketed and sold through private insurers, but with the risks borne by the US federal government. In July 2012, Congress passed the Biggert-Waters Flood Insurance Reform Act (Biggert-Waters 2012, or BW 2012), which was designed to initiate several changes within the NFIP. A core principle of the 2012 legislation was to move toward an insurance program with NFIP risk-based premiums that better reflected expected losses from floods at insured properties.[1] This entailed eventual removal of discounts from NFIP policies known as "pre-FIRM subsidized" (pre-Flood Insurance Rate Map) and "grandfathered" policies. Paying the claims for such policies contributed in part to the NFIP having to borrow from the US Treasury to pay for claims after Hurricane Katrina and late storms. That debt was also a motivation for provisions in BW 2012 that directed FEMA to consider actions that had the potential to improve the financial foundation for the program through premium increases that would better reflect flood risks.

BW 2012 Section 100236 called for an "affordability study" from FEMA that would include "methods to aid individuals to afford risk-based

[1]Some of the terms used in this report may be unfamiliar to the reader or may have been used in inconsistent ways in writing and testimony about the NFIP through the years. Terms specific to the NFIP were taken from FEMA to the extent possible, but other terms were developed by the committee to ensure their consistent use throughout the report. A List of Terms is included at the end of this report for the reader's convenience.

premiums under the National Flood Insurance Program through targeted assistance rather than generally subsidized rates, including means-tested vouchers." The study was to inform the development of an affordability framework by FEMA to help inform NFIP policy decisions. However, implementation of BW 2012 rate increases was expected to take effect without awaiting the study and the development of an affordability framework, including an assistance program (see Appendix A for full language of BW 2012 Section 100236).

As BW 2012 went into effect, constituents from multiple communities expressed concerns about the elimination of lower rate classes, arguing that it created a financial burden on policyholders. Some concerns reflected the reality that purchase of the more expensive insurance was in some instances mandatory. Other concerns were based on expectations that higher premiums would depress home values, and on the question of whether higher premiums would thwart attainment of a long-standing objective of the NFIP to expand the number of properties covered by flood insurance. In response to these concerns, Congress passed the Homeowner Flood Insurance Affordability Act of 2014 (HFIAA 2014). The 2014 legislation changed the process by which pre-FIRM subsidized premiums for primary residences would be removed and reinstated grandfathering. In addition, Section 9 of HFIAA 2014 once again called on FEMA to report to Congress with a draft affordability framework. Specifically, the legislation stated

> the Administrator shall prepare a draft affordability framework that proposes to address, via programmatic and regulatory changes, the issues of affordability of flood insurance sold under the National Flood Insurance Program, including issues identified in the affordability study required under Section 100236 of the Biggert-Waters Flood Insurance Act of 2012.

Section 100236 of BW 2012 mandated that both the aforementioned FEMA affordability study and a study from the National of Academy of Sciences (NAS) to provide input into FEMA's work. In response, the National Research Council (NRC)[2] convened the Committee on the Affordability of National Flood Insurance Program Premiums. The statement of task guiding this NRC committee calls for two reports and explains the content of and distinctions between them:

> The first report, due in February 2015, will discuss the underlying definitions and methods for an affordability framework and describe the affordability concept and applications, and program policy options.

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[2]The National Research Council is the working arm of the National Academies. The National Academies is the collective entity that includes the National Academy of Sciences (NAS), the National Academy of Engineering (NAE), the Institute of Medicine (IOM), along with the National Research Council. For more information, see http://nationalacademies.org

> The second report, due in September 2015, will propose alternative approaches for a national evaluation of affordability program policy options, based in part on lessons gleaned from a proof-of-concept pilot study to be guided by the NRC committee.

See Box 1-1, Chapter 1, for the full statement of task.

Consistent with its statement of task, Chapter 6 describes alternatives for determining when the premium increases resulting from BW 2012 would make flood insurance unaffordable and describes key design decisions and policy options for creating an assistance program. Chapter 7 discusses policy alternatives that may lower the cost of flood insurance for eligible households. To set the stage for Chapters 6 and 7, Chapter 2 describes the history of the NFIP emphasizing the effects of that history on premium setting prior to BW 2012. Chapter 3 describes the NFIP pricing practices that were in place when BW 2012 was passed and how BW 2012 might increase premiums. Chapter 4 describes the demand for insurance and offers findings about the challenge of increasing the purchase of flood insurance policies, a long-standing objective of Congress for the NFIP. Chapter 5 identifies places in the nation where the effects of BW 2012 may be most pronounced.[3]

NATIONAL FLOOD INSURANCE PROGRAM HISTORY

Original proposals for a national flood insurance program date back to the 1950s. The original 1968 legislation that established the program, and implementation of the NFIP over the years that led up to passage of BW 2012, reflected an intent to make flood insurance part of a multifaceted national program for flood risk management. That intent, in turn, affected NFIP premium-setting practices that were used prior to BW 2012. The following findings are based on a review of that history.

- **From the inception of the NFIP, and continuing until BW 2012, Congress sought to achieve multiple objectives for the program. The objectives have been to (1) ensure reasonable insurance premiums for all, (2) have NFIP risk-based premiums that would make people aware of and bear the cost of their floodplain location choices, (3) secure widespread community participation in the program and substantial numbers of insurance policy purchases by property owners,**

[3]This report does not attempt to specify programs or actions to promote flood insurance affordability, nor does it advise on how national flood risks might be reduced through insurance or other actions.

and (4) earn premium and fee income that, over time, covers claims paid and program expenses. These objectives, however, are not always compatible, and at times may conflict with one another.

- **The premium-setting practices and procedures that were in place before Biggert-Waters 2012 reflected the multiple objectives of the NFIP, and in some cases reflected premium-setting practices that were put in place when the NFIP was created. BW 2012 increased the emphasis on setting NFIP rates that reflected flood risk, and on charging premiums that would cover claims paid and other related expenses.**

NATIONAL FLOOD INSURANCE PROGRAM POLICY PRICING AND EFFECTS OF BIGGERT-WATERS 2012

Well-established actuarial principles require that the combination of insurance premiums and other income sources yield revenues that will pay expected future claims and insurance program expenses (costs). These principles also hold that premiums for an individual policy, to the administratively feasible extent, should be based on expected claims plus fees for the policy. Further, the principles hold that there should be no cross-subsidy whereby one group of policyholders has higher premiums so that others will have lower premiums. Finally, premiums should be no higher than necessary to ensure that these principles are met; regulation of private insurers is expected to limit premiums to costs of providing coverage plus a competitive return on invested capital. The NFIP, although not a private company, seeks to employ actuarial principles when setting premiums. However, historical precedent and congressional desire for premiums to be reasonable, constrained application of these principles. BW 2012 sought to remove constraints on the NFIP's ability to follow actuarial pricing principles.

As a result, BW 2012 had the potential to increase premiums for three types of NFIP policies: NFIP risk-based, grandfathered, and pre-FIRM subsidized. Pre-FIRM subsided policies have premiums that are less than those of NFIP risk-based policies for structures that were in place before a local flood insurance rate map (FIRM) was available. The NFIP realizes foregone revenues, relative to NFIP risk-based premiums, for this type of policy. To accommodate that reality, FEMA had adopted a revenue target whereby all premium income would equal claims paid on the historical average loss year (HALY). BW 2012 phases out this policy type; as a result, FEMA no longer uses the HALY in NFIP premium setting. The increases may be especially important for the 20% of properties that are eligible for pre-FIRM subsidized premiums.

The grandfathered premiums within the NFIP allow a given rating class to continue for a property even if a new FIRM may indicate a higher level