

GAO

Report to the Ranking Member,  
Committee on Banking, Housing, and  
Urban Affairs, U.S. Senate

November 2008

# FLOOD INSURANCE

## Options for Addressing the Financial Impact of Subsidized Premium Rates on the National Flood Insurance Program





Highlights of [GAO-09-20](#), a report to the Ranking Member, Committee on Banking, Housing, and Urban Affairs, U.S. Senate

## Why GAO Did This Study

The Federal Emergency Management Agency (FEMA), the Department of Homeland Security (DHS) agency that administers the National Flood Insurance Program (NFIP), estimates that subsidized properties—those that receive discounted premium rates that do not fully reflect the properties' actual flood risk—experience as much as five times the flood damage as properties that do not qualify for subsidized rates. Almost one in every four residential policies has subsidized rates that are on average 35-40 percent of the full-risk rate. Unprecedented losses from the 2005 hurricane season and NFIP's periodic need to borrow from the Department of the Treasury to pay flood insurance claims has raised concerns about the impact that subsidized premium rates have on the long-term financial solvency of NFIP. GAO designated NFIP as high-risk in March 2006; as of June 2008, NFIP's debt stood at \$17.4 billion.

This report (1) provides information on NFIP's inventory of subsidized properties and (2) examines NFIP's current approach to subsidized properties and the advantages and disadvantages of options for reducing the costs associated with these properties. To do this work, GAO analyzed data on policies and claims and collected available data about subsidized properties. GAO also reviewed applicable reports and interviewed relevant agency, state, and private sector officials. In its written comments, DHS expounded upon several topics discussed in this report.

To view the full product, including the scope and methodology, click on [GAO-09-20](#). For more information, contact Orice Williams at (202) 512-8678 or [williamso@gao.gov](mailto:williamso@gao.gov).

## FLOOD INSURANCE

### Options for Addressing the Financial Impact of Subsidized Premium Rates on the National Flood Insurance Program

#### What GAO Found

While it constitutes a declining percentage of all NFIP policies, the number of properties receiving subsidized premium rates has grown since 1985; by 2007 it was at its highest point in almost 30 years. According to FEMA, this growth resulted from several factors, including a growing number of mortgages with mandatory flood insurance purchase requirements and greater enforcement of these requirements, the longer-than-expected life of the structures that are eligible for subsidies, and increased awareness of the dangers of floods from several major recent disasters and increased NFIP marketing efforts. To date, more than half of the subsidized policies are concentrated in five states with relatively high flood risk—California, Florida, Louisiana, New Jersey, and Texas. Current low participation rates—around 50 percent of single-family homes in high-risk areas—leave room for substantial growth in the number of NFIP policies, many of which would be likely to receive subsidized rates. Because of their relatively high loss experience and lower premium rates, the policies receiving subsidized rates have been a financial burden on the program, with total claims exceeding premiums by \$962 million over the period from 1986 through 2004, before the large losses from the 2005 hurricanes. Without changes to the program, the number of subsidized properties will likely continue to grow, increasing the potential for future NFIP operating deficits.

As Congress evaluates the impact of subsidized premium rates, it is faced with balancing the public policy goals of charging premium rates that fully reflect actual risks, encouraging broad program participation through affordable rates, and limiting costs to taxpayers. While the current program of property-based subsidies and voluntary mitigation efforts—steps taken to reduce a property's flood risk such as relocation or elevation—encourages broad program participation, it is unlikely to substantially reduce the adverse financial impact of subsidized properties. GAO identified three options for addressing the financial impact of subsidized properties on the NFIP, each with advantages and disadvantages. One option would be to increase mitigation efforts, including making mitigation mandatory. Mitigation could help reduce flood losses, but the increased funding for such efforts could be high. A second option, eliminating or reducing subsidies, could improve NFIP's financial stability by increasing the number of policies that more accurately reflect the risk of flooding. However, the resulting higher premium rates could reduce NFIP participation and could meet resistance from local communities. A third option would be to target subsidies based on financial need, which could help ensure that only those in need receive subsidies, with the rest paying full-risk rates. However, it could be challenging for FEMA to develop and administer such a program in the midst of ongoing management challenges. While the inherent difficulty in determining premium rates adequate to cover potentially volatile and at times catastrophic flood losses means that the potential for the program to incur future operating deficits will always exist, implementing any or a combination of these options could significantly reduce the adverse financial impact of subsidies on NFIP.

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## Abbreviations

BF E	base flood elevation
CBO	Congressional Budget Office
DHS	Department of Homeland Security
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FMA	Flood Mitigation Assistance
HMGP	Hazard Mitigation Grant Program
ICC	Increased Cost of Compliance
PDM	Pre-Disaster Mitigation
RFC	Repetitive Flood Claims
NFIP	National Flood Insurance Program
SBA	Small Business Administration
SFHA	Special Flood Hazard Area
SRL	Severe Repetitive Loss Pilot Program

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United States Government Accountability Office  
Washington, DC 20548

November 14, 2008

The Honorable Richard C. Shelby  
Ranking Member  
Committee on Banking, Housing,  
and Urban affairs  
United States Senate

Dear Senator Shelby:

In 2007, about 1.2 million—or almost one out of four—residential flood insurance policies covered by the National Flood Insurance Program (NFIP) continued to be sold at highly discounted rates that did not fully reflect the actual risk of flood damage (known as subsidized rates).<sup>1</sup> The Federal Emergency Management Agency (FEMA), which is the Department of Homeland Security agency that administers NFIP, estimates that properties covered by policies with subsidized rates experience as much as five times more flood damage than compliant new structures experience that are charged rates that aim to reflect the actual risk of flooding (full-risk rates). Given that subsidized rates average 35 to 40 percent of what full-risk rates would be on the same properties, these policies represent a financial drain on the program. Over the years, the program has had to borrow periodically from the U.S. Treasury. Largely as a result of claims associated with the 2005 hurricane season, the program's outstanding debt stands at \$17.4 billion as of June 2008.

The National Flood Insurance Act of 1968 authorized subsidized rates to encourage participation in NFIP.<sup>2</sup> Specifically, the act authorizes subsidized rates for many existing properties in high-risk locations known as Special Flood Hazard Areas (SFHA) that otherwise would have been charged higher premiums, with the justification that these properties were built before Flood Insurance Rate Maps (FIRM) became available and the

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<sup>1</sup>Unless otherwise noted, all policy counts referenced in this report represent only active residential policies as of December 31, 2007. An insurance premium rate is the price charged for coverage.

<sup>2</sup>National Flood Insurance Act of 1968, Pub. L. No. 90-448, Title XIII, 82 Stat. 476 (1968).

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level of risk was clearly understood.<sup>3</sup> But critics of the subsidies have argued that subsidized rates should be discontinued for several reasons. Critics argue, for example, that some of the individuals receiving subsidies may be able to afford full-risk premiums and that the availability of subsidized rates may actually create a disincentive for property owners to mitigate their properties to reduce the risk of flood damage.<sup>4</sup>

In March 2006, we designated NFIP as high-risk, in part because of the program's financial condition and inability to repay funds borrowed from the U.S. Treasury to cover the catastrophic flood losses resulting from the 2005 hurricanes. More recent flooding in the Midwest and from the 2008 hurricane season are likely to reignite persistent questions about the program's long-term financial solvency and the impact of subsidized premiums on its long-term financial health. To address these questions, as agreed with your staff, this study (1) provides information on NFIP's inventory of subsidized properties and their financial impact on the program and (2) examines NFIP's current approach to managing its inventory of subsidized properties and the advantages and disadvantages of options for reducing or eliminating the financial impact of properties insured at subsidized rates.

To address these objectives, we analyzed NFIP data on flood insurance policies, including both subsidized and full-risk premiums and claims. We assessed the reliability of these data by gathering and analyzing available information about how the data were created and maintained and performed electronic tests of required data elements. We determined that the data were sufficiently reliable for the purposes of this report. We also analyzed NFIP's legislative history and examined FEMA's implementation

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<sup>3</sup>Buildings eligible for subsidized rates are those that were built before FIRMs were created, identifying flood-prone areas, and before participating communities established and enforced NFIP building codes. Flood-prone areas that are estimated to have a 1 percent chance of flooding in any given year are also known as Special Hazard Flood Areas or 100-year flood plains. The 1 percent chance of flood, or 100-year flood, is also known as the base flood. The FIRMs also identified areas that are of low or moderate flood risk (such as the 0.2 percent chance of flooding or the 500-year flood plains). NFIP building codes require, among other things, that the lowest level of a structure must be at or above the area's base flood elevation, the land elevation that has a 1 percent chance of flooding.

<sup>4</sup>Steps taken to reduce flood risk are known as mitigation. According to FEMA, the key mitigation steps for residential properties are elevating a building to or above the area's base flood elevation, relocating the building to an area of less flood risk, or demolishing the building and turning the property into green space. A community can also take steps to reduce flood risk to an area, by diverting the flow of water through well designed channels and retaining walls, or by containing the water, through ponds and green space.

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of legislative requirements authorizing subsidized rates for certain properties in high risk locations. In addition, we judgmentally selected and visited five counties that experienced various types of flooding and had large numbers of subsidized properties in order to more fully understand similarities and differences in how NFIP operated at the local level.<sup>5</sup> During our site visits we met with local floodplain managers, property tax assessors, building permit officials, civil engineers, real estate agents, insurance agents, claims adjusters, and other relevant parties. We interviewed officials from the five FEMA regional offices responsible for these counties and spoke with representatives from private companies that collected and sold data on real estate transactions and values, for marketing purposes. Finally, we spoke with Congressional Budget Office (CBO) staff about its study of NFIP properties and we analyzed various other studies on relevant flood insurance issues.<sup>6</sup> Further details about our scope and methodology are included in appendix I.

We conducted this performance audit from December 2006 to November 2008 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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## Results in Brief

While it constitutes a declining percentage of all NFIP policies, the number of properties receiving subsidized premium rates has grown fairly consistently over the last 20 years, and the relatively high loss experience of these properties has continued to undermine the financial condition of the program. Despite initial expectations that the number of properties eligible for subsidized rates would decline over time, the number of policies with subsidized rates are at their highest point in almost 30 years. As of December 2007, there were about 1.2 million active residential policies—or almost 23 percent of all properties covered by NFIP. According to FEMA, the increase in the number of policies receiving subsidized rates is the result of several factors, including the following: (1) a growing number of mortgages with mandatory flood insurance purchase

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<sup>5</sup>Flooding types include floods from hurricanes, flash floods, and overland floods.

<sup>6</sup>Congressional Budget Office, *Value of Properties in the National Flood Insurance Program* (June 2007).

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requirements and greater enforcement of those requirements, (2) the longer-than-expected life of the structures that are eligible for subsidies, and (3) an increased awareness in recent years of the dangers of floods following several major disasters and increased NFIP marketing efforts.<sup>7</sup> Of these approximately 1.2 million policies, 57 percent are located in five states with relatively high flood risk: California, Florida, Louisiana, New Jersey, and Texas. In addition, current low program participation rates leave room for substantial growth in the number of NFIP policies, including subsidized properties. According to a 2006 study, for instance, only about half of the single-family homes in SFHAs had flood insurance.<sup>8</sup> While it is not clear what percentage of any new policies might receive subsidized rates, FEMA officials said that any increase would depend largely on the location of future policyholders. Policies receiving subsidized rates have been a financial burden on the program, resulting in an operating deficit of \$962 million for the years 1986 through 2004, a period before the large losses resulting from the hurricanes of 2005.<sup>9</sup> Adding the 2005 hurricanes to this period, the operating deficit for subsidized policies increased to \$6.3 billion. Policies receiving subsidized rates also account for the majority of repetitive loss properties—properties that have experienced multiple flood losses—which make up only around 1 percent of the total policies but have accounted for about 30 percent of claims dollars paid. Without changes to the program, the number of subsidized properties will likely continue to grow, increasing the likelihood that NFIP will experience ongoing operating deficits.

As Congress evaluates whether to maintain the current system of NFIP subsidies or make changes, it is faced with balancing the often competing public policy goals of charging premium rates that fully reflect actual risks (and thus helping improve the financial condition of NFIP), encouraging broad participation in natural catastrophe insurance programs by maintaining affordable rates, and limiting taxpayer costs before and after a disaster. While the current system of subsidies and primarily voluntary

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<sup>7</sup>The Flood Disaster Protection Act of 1973, Pub. L. No. 93-234, §102, 87 Stat. 975, 978 (1973), mandated that policyholders with mortgages or loans from federally regulated and insured lending institutions buy flood insurance for the life of the mortgage or loan.

<sup>8</sup>RAND, *The National Flood Insurance Program's Market Penetration Rate: Estimates and Policy Implications* (Santa Monica, California: 2006).

<sup>9</sup>In 1981, FEMA initiated a multiyear series of coverage changes and large rate increases for all subsidized policies, which FEMA claims placed NFIP on a financially sound basis by 1986. Therefore, we only included financial data since 1986 to account for these modifications.

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mitigation might promote broad participation, it results in rates that do not reflect the actual risks of flooding and an inventory of subsidized properties that is not likely to be reduced in number. We discuss three broad public policy options for addressing the financial impact of subsidized properties on the financial solvency of NFIP:

- increase mitigation efforts,
- eliminate or reduce use of subsidies, and
- target use of subsidies based on the financial need of the property owner.

Each of the options we identified has both advantages and disadvantages in terms of the impact on the program's public policy goals and would involve trade-offs that would have to be weighed. For instance, substantially expanding mitigation efforts would help reduce losses from flood damage and could ultimately limit costs to taxpayers by decreasing the number of subsidized properties, but would require increased funding for FEMA's mitigation programs. Eliminating or reducing the subsidies would help ensure that premium rates more accurately reflect the actual risk of loss, an outcome that could motivate more homeowners to mitigate. However, the resulting higher premiums could lead some homeowners to discontinue or not purchase coverage, thus reducing participation in NFIP and potentially increasing the costs to taxpayers of providing disaster assistance in the event of a catastrophe. Targeting subsidies based on need—through a means test, for example—is an approach used by other federal programs and could help ensure that those needing the subsidy would have access to it and retain their coverage. Depending on how such a program was implemented, NFIP might be able to charge more participants full-risk rates. However, raising premium rates for some participants could also decrease program participation, and may discourage low-income property owners from participating in NFIP if they were required to prove that they met the requirements for a subsidy. It might also be a challenge for FEMA to implement this option in the midst of other ongoing management challenges. While the inherent difficulty in setting premium rates adequate to cover potentially volatile and at times catastrophic flood losses means that the potential for the program to incur future operating deficits will always exist, implementing any or a combination of these options could significantly reduce the adverse financial impact of subsidies on NFIP.

We provided a draft of this report to the Department of Homeland Security (DHS) for comment. It provided written comments that are reprinted in appendix III. In its written comments, DHS expounded upon several topics

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discussed in this report. First, DHS noted that it is aware of the financial impact of subsidized and repetitive loss properties on NFIP, and stated that while it has proposed a number of initiatives through the years, most of these were not welcomed by stakeholders. Second, DHS noted that amendments to current statutes and rules would be needed if FEMA were to require mitigation via a grant program beyond the substantial damage provision that currently is the only provision that triggers mandatory mitigation. Third, DHS recognized that a needs-based subsidy could be beneficial, but it recommended that the burden of making needs-based determinations be placed on someone other than the insurance agent and that a discussion be held on how the costs of discounted premiums would be borne. DHS also provided technical comments, which we have incorporated as appropriate.

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## Background

Flooding is the most widespread natural hazard in the country, affecting virtually every state. From February 1978 through August 2008, there were 90 significant flood events.<sup>10</sup> Since its inception in 1968, NFIP has sought to have local communities adopt floodplain management ordinances and offered flood insurance to their residents in an effort to reduce the need for government assistance after a flood event. Premium subsidies were seen as a way to achieve the program's objectives by ensuring that owners of existing properties in flood zones could afford flood insurance. The authority for subsidized rates was therefore included in the National Flood Insurance Act of 1968 as an incentive for communities to join the program by adopting and enforcing floodplain management ordinances that would reduce future flood losses, with the intent that the subsidies would be only a part of an interim solution to long-term adjustments in land use. The first \$35,000 of any subsidized policy for a one-to-four family residential property, and the first \$100,000 of any other residential property, receives the NFIP subsidy; amounts of insurance in excess of \$35,000 and \$100,000, respectively, are charged full-risk rates.<sup>11</sup> On average, the premium for a subsidized policy in a high-risk flood zone is higher than the premium on a full-risk policy in the same zone because properties with full-risk rates have either been built to newer flood-resistant building codes or have been mitigated to reduce flood risks and thus are generally less flood prone than properties that are eligible for subsidized rates. For example, the

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<sup>10</sup>FEMA generally considers a significant flood event as one with 1,500 or more paid losses.

<sup>11</sup>For more information on NFIP rate-setting, see GAO, *Flood Insurance: FEMA's Rate-Setting Process Warrants Attention*, [GAO-09-12](#) (Washington, D.C.: Oct. 31, 2008).

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average annual subsidized premium in 2007 for properties located in the highest-risk zones was about \$880, while the average annual premium for properties in the same zones paying full-risk rates was about \$379.

The program has three components: (1) the provision of flood insurance, as mentioned above; (2) the requirement that participating communities adopt and enforce floodplain management regulations; and (3) the identification and mapping of floodplains. Community participation in NFIP is voluntary. However, communities must join NFIP and adopt FEMA-approved building standards and floodplain management strategies in order for their residents to purchase flood insurance. Participating communities can receive discounts on flood insurance if they establish floodplain management programs that go beyond the minimum requirements of NFIP. FEMA can suspend communities that do not comply with the program, and communities can withdraw from the program. Currently, more than 20,000 communities participate in NFIP.

FIRMs, which show the level of flood risk in various areas and assign a flood zone designation to each area based on its risk level, are used to set premium rates, among other things.<sup>12</sup> The risk levels range from high to low risk depending on the risk of flooding.<sup>13</sup> Structures used to secure loans from a federally regulated lending institution that are deemed high-risk or high-risk coastal are required to have flood insurance. For structures deemed to have moderate to low risk of flooding, the purchase of flood insurance is voluntary. FIRMs are also used to determine whether a structure is eligible for rate subsidies. Structures built after a community's FIRM was published must be built to NFIP building standards and pay full-risk rates. Communities also use the maps to establish minimum building standards designed to reduce the impact of flooding, and lenders use them to identify which property owners are required to purchase flood insurance.

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<sup>12</sup>For more information on all FEMA flood zones, please see appendix VII of GAO, *National Flood Insurance Program: Financial Challenges Underscore Need for Improved Oversight of Mitigation Programs and Key Contracts*, GAO-08-437 (Washington, D.C.: June 16, 2008).

<sup>13</sup>FEMA also has a category of properties whose flood risk has not yet been determined but flooding is possible. Mandatory purchase requirements do not apply.

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Once communities join NFIP and are mapped, structures that were built before the FIRM—pre-FIRM structures—become eligible for subsidized rates. Pre-FIRM structures generally are at a high risk of flooding because they are located below the area’s base flood elevation (BFE), which is the computed elevation to which floodwater is anticipated to rise during a flood that is estimated to have a 1 percent chance of occurring annually. To lessen the flood risk level, pre-FIRM structures can be mitigated. FEMA recognizes the following steps for mitigating residential pre-FIRM structures: (1) elevation of structures to or above their BFE, (2) relocation of structures to a higher area, or (3) demolition of structures. Mitigation of pre-FIRM properties is voluntary unless a property is substantially damaged or the owner undertakes substantial improvement.<sup>14</sup> In these cases, the structure must be repaired or renovated to meet the same standards as new construction. Unmitigated existing pre-FIRM properties are eligible for subsidized rates for the life of the properties. As owners sell their subsidized properties, the new owners also become eligible for the subsidized rates, and subsidies apply even if the owners discontinue their insurance coverage and do not purchase insurance again until years later.

Mitigation activities have always been part of NFIP, but it was not until the 1988 passage of the Robert T. Stafford Disaster Relief and Emergency Assistance Act that FEMA received the authority to fund mitigation projects for all types of disasters, including flooding.<sup>15</sup> Later, the National Flood Insurance Reform Act of 1994 gave FEMA the authority to carry out a flood-only mitigation assistance program to help policyholders reduce the risk of flood damage to individual properties.<sup>16</sup> In 2004, the Bunning-Bereuter-Blumenauer Flood Insurance Reform Act of 2004 authorized two additional grant programs specifically for properties that experienced repetitive flooding and mandated increased premiums if property owners refused to mitigate.<sup>17</sup> Each program has different types of requirements, purposes, and appropriations. FEMA uses a cost-benefit analysis to

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<sup>14</sup>If the cost of restoring a flood-damaged structure to its predamage condition or renovating an insured structure is equal to or greater than 50 percent of that structure’s market value before the damage or renovation, the structure must be mitigated and meet other applicable local ordinance requirements. See 44 C.F.R. § 9.11

<sup>15</sup>Pub. L. No. 100-707, 102 Stat. 4689 (1988).

<sup>16</sup>Pub. L. No. 103-325, §553, 108 Stat. 2255, 2270 (1994).

<sup>17</sup>Pub. L. No. 108-264, §§ 102, 104, 118 Stat. 712, 714, 722 (2004).

determine the cost-effectiveness of proposed mitigation projects and to rank the projects in order of priority. Policyholders can also buy Increased Cost of Compliance (ICC) Coverage—a component of the standard flood insurance policy—which provides up to \$30,000 above the insured policy amount for mitigating flood-damaged properties that meet certain criteria. Table 1 summarizes the five mitigation programs and ICC.

**Table 1: Overview of the Authorities, Purpose and Funding, and Planning and Cost-Share Requirements of FEMA Mitigation Assistance Options**

<b>Program</b>	<b>Authorities</b>	<b>Purpose and fiscal year 2007 funding levels</b>	<b>Planning requirements</b>	<b>Cost-share requirement</b>
Flood Mitigation Assistance (FMA)	Section 1366 of the National Flood Insurance Act of 1968, as added by the National Flood Insurance Reform Act of 1994	To implement cost-effective measures that reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other structures insured under NFIP. Appropriation for fiscal year was \$34 million.	FEMA approved local flood mitigation plan meeting required prior to award; no state plan required.	Up to 75 percent federal, minimum 25 percent nonfederal match required. Reduced match (10 percent nonfederal) for states with approved state mitigation plans meeting hazard mitigation planning requirements.
Repetitive Flood Claims (RFC)	Section 1323 of the NFIA of 1968, as added by the Flood Insurance Reform Act of 2004	To reduce or eliminate the long-term risk of flood damage to structures insured under NFIP that have had one or more claim payments for flood damage. Appropriation for fiscal year 2008 was \$10 million.	FEMA approved State/Tribal Standard or Enhanced hazard mitigation plan required prior to award; no local plan required.	Up to 100 percent federal funding (no nonfederal match requirement).
Severe Repetitive Loss Pilot Program (SRL)	Section 1361A of the NFIA of 1968, as added by the Bunning-Bereuter-Blumenauer Flood Insurance Reform Act of 2004	To reduce or eliminate the long-term risk of flood damage to severe repetitive loss residential properties and the associated drain on the National Flood Insurance Fund from such properties. Combined appropriation for fiscal year 2006 through FY2008 was \$160 million. <sup>a</sup>	FEMA approved State/Tribal Standard or Enhanced hazard mitigation plan required prior to award.	Up to 75 percent federal, minimum 25 percent nonfederal match required. Reduced match (10 percent nonfederal) for states with approved state mitigation plans meeting hazard mitigation planning requirements.
Hazard Mitigation Grant Program (HMGP)	Section 404 of the Robert T. Stafford Disaster Relief and Emergency Relief Act	To provide funds to states, territories, Indian Tribal governments, and communities to reduce or eliminate future risks to lives and property from natural hazards, in accordance with identified priorities. Appropriation for fiscal year 2008 was \$324.7 million.	FEMA approved local mitigation plan prior to award.	Up to 75 percent federal; nonfederal match does not need to be in cash; in-kind services or materials may be used.

Program	Authorities	Purpose and fiscal year 2007 funding levels	Planning requirements	Cost-share requirement
Pre-Disaster Mitigation (PDM)	Title I of the Disaster Mitigation Act of 2000	To provide funds to states, territories, Indian Tribal governments, and communities for hazard mitigation planning and the implementation of mitigation projects prior to a disaster event. Appropriation for fiscal year 2008 was \$114 million.	FEMA-approved State/Tribal Standard or Enhanced hazard mitigation plan.	Up to 75 percent federal, minimum 25 percent nonfederal match required although small, impoverished communities may be eligible for up to 90 percent federal cost-share.
Increased Cost of Compliance (ICC) Coverage	Section 1304 of the NFIA of 1968, as amended by the National Flood Insurance Reform Act of 1994	To provide up to \$30,000 to policyholders to help cover the cost of mitigation measures for flood-damaged properties. This amount is in addition to building coverage under the standard flood insurance policy. Funded from premiums collected.	Not applicable	No cost-share requirement. However, ICC may be used in concert as nonfederal matching funds with the FEMA mitigation grants.

Source: FEMA.

<sup>a</sup>Fiscal year 2006 and fiscal year 2007 appropriations had not been used and therefore were combined with fiscal year 2008 appropriations.

## The Growing Inventory of Subsidized Properties Has Contributed to NFIP's Operating Losses

NFIP's inventory of properties receiving subsidized premium rates has grown over the past 20 years, hindering the program's ability to pay claims without borrowing from the Treasury. While the percentage of policies receiving subsidies has dropped since 1978 to 23 percent of all policies as of December 2007, the number of subsidized properties has continued to increase. In addition, despite earlier expectations that the number of subsidized properties would decrease over time, for several reasons the number of policies with subsidized rates is at its highest point since 1980. Further, because of current low NFIP participation rates, there appears to be room for substantial growth in the number of NFIP policies, many of which are likely to receive subsidized premium rates. The properties receiving subsidized rates have been a financial burden on the program because of their relatively high loss experience and subsidized rates that do not reflect the actual risk of flooding.<sup>18</sup> Subsidized properties also

<sup>18</sup>NFIP's overall operating deficit for 1986-2004 was \$928 million. This number is less than the operating deficit for subsidized policies because that operating deficit was offset by slight operating surpluses in some policies that were not included in the subsidized or full-risk categories.

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account for the majority of repetitive loss properties—properties that have experienced multiple flood losses—which make up around 1 percent of the total policies but 30 percent of the claims dollars paid.

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### The Number of Policies Receiving Subsidized Rates Has Increased due to a Number of Factors

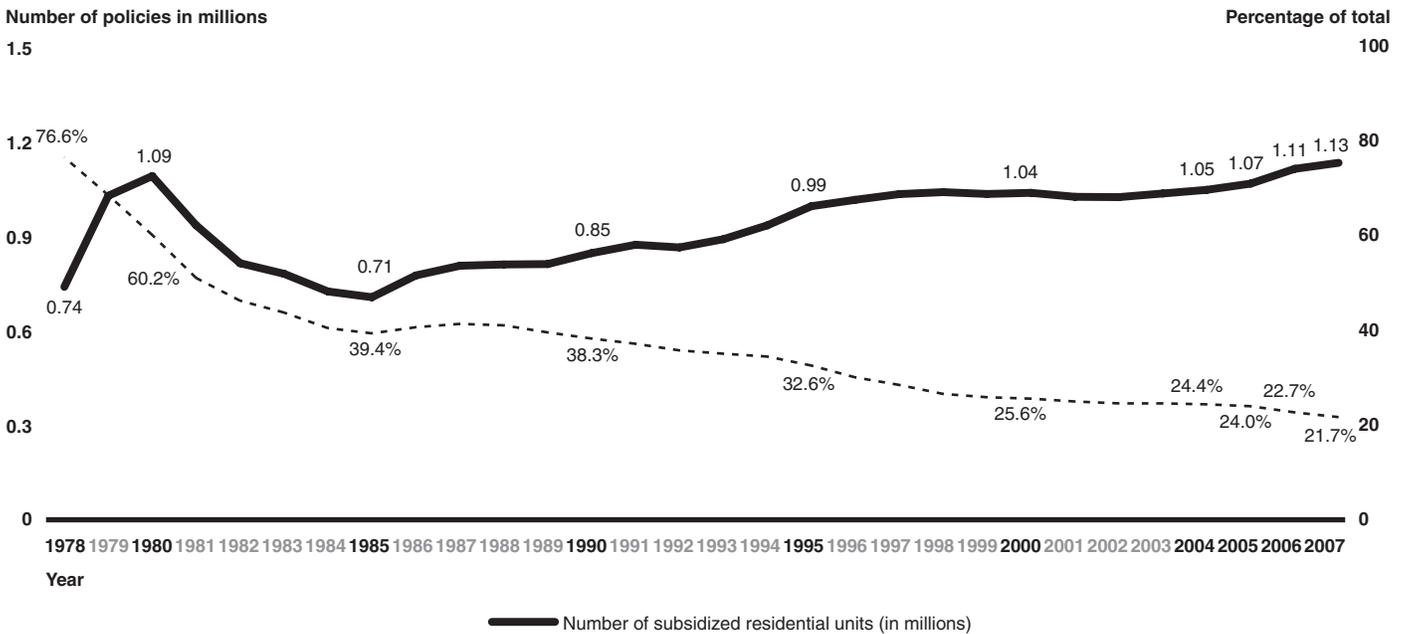
While the percentage of residential subsidized properties has dropped over time, the number of subsidized properties has fluctuated since NFIP began but has grown fairly consistently over the last 20 years (see fig. 1). Specifically, the percentage of residential subsidized policies has dropped since the early years of the program from 77 percent in 1978 to 23 percent of all policies as of December 2007.<sup>19</sup> But the number of policies with subsidized rates is at its highest point since 1978, despite earlier expectations that the number of subsidized properties would decrease substantially. According to FEMA, in the early years of the program it used subsidies to encourage participation in the program, and because of the high number of pre-FIRM structures, the number of policies with subsidized rates reached a high of about 1.09 million in 1980. Subsequently, between 1980 and 1985, aggressive annual rate increases for subsidized policies corresponded with a reduction in the number of subsidized policies, which fell to a low of about 705,000 in 1985. However, the number of policies with subsidized rates has increased nearly every year since 1986, reaching a high of almost 1.13 million in 2007.<sup>20</sup>

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<sup>19</sup>December 2007 number is measured by active residential policies in force. Because full-risk policies do not collect more in premiums than their expected average losses over the long term, an increase in the proportion of full-risk policies to policies with subsidized rates does not decrease the expected dollar amount of operating deficit caused by claims on subsidized properties.

<sup>20</sup>We calculated the number of policies using earned exposure, which is a measure of how many policies were in effect throughout the year based on the duration of the policy. For example, a 1-year policy that became effective on December 22, 2006, has an earned exposure for calendar year 2006 of 10/365, while the earned exposure for 2007 is 355/365.

**Figure 1: Changes in the Percentage and Number of Residential NFIP-Subsidized Policies by Year, from 1978 to 2007**



Source: GAO analysis of NFIP data.  
 Note: Policies measured by earned exposure.

A number of factors help explain this increase. Specifically, according to FEMA, there has been an increase in the number of mortgages with mandatory purchase requirements for flood insurance—that is, mortgages on structures that are located in SFHAs. The Flood Disaster Protection Act of 1973 made flood insurance mandatory for mortgages from federally regulated lenders on buildings located in SFHAs. These lenders are required to check the current FIRM to determine whether the structure is in the SFHA at the time a mortgage is made.<sup>21</sup> FEMA officials also told us that since the 1973 act, the increase in the number of mortgages subject to the flood insurance requirement, coupled with greater enforcement of this requirement by financial regulators in recent years, had resulted in an increased number of flood insurance policies, including policies with

<sup>21</sup>The Flood Disaster Protection Act of 1973, Pub. L. No. 93-234, §102, 87 Stat. 975, 978 (1973).

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subsidized rates. According to FEMA, many of these mortgages were on buildings that were constructed before the most recent FIRMs were in place, making the policies eligible for the subsidized rates. Additionally, the populations of coastal communities have grown steadily over the last 28 years. These communities have relatively high concentrations of properties in SFHAs that are required to have flood insurance, including properties that qualified for subsidized premiums.

Moreover, FEMA said that the longer-than-expected life of structures eligible for subsidies has made decreasing the subsidized property inventory more difficult. Some in Congress, at the time NFIP was created, assumed that buildings would be torn down as they aged and any new structures, which would have to meet more strict building codes, would be ineligible for subsidized rates. However, according to FEMA, existing structures have been demolished at a much lower rate than expected and reductions in the overall subsidized property inventory have not occurred. Moreover, some older structures have been renovated and thus may retain their subsidies. And because subsidized premiums are tied to the property and not the policyholder, properties have retained their subsidies even as ownership has changed.

Other factors have also contributed to the increase in the number of subsidized properties. For example, FEMA told us that SFHA boundaries have been modified through its map modernization program, resulting in more properties in SFHAs, and many of these properties are eligible for subsidized rates. Moreover, FEMA told us that many homeowners purchased flood insurance after seeing the devastation caused by the hurricanes of 2005. FEMA officials commented that many homeowners believed that there was little to no chance that their homes would be flooded, but that after the 2005 hurricanes, these homeowners had a better understanding of the reality of their actual flood risk. FEMA noted that a community's policy inventory often increases sharply after experiencing a flood. Another possible reason for the increase is that disaster assistance for repair or replacement of buildings or manufactured (mobile) homes and/or personal property in SFHAs can trigger a requirement to purchase flood insurance. In addition, according to FEMA, the recent increase in its marketing efforts through its FloodSmart campaign has contributed to the increase in policies.<sup>22</sup> This program was designed to educate and inform

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<sup>22</sup>FloodSmart is an integrated mass marketing campaign FEMA launched in 2004 to educate the public about the risks of flooding and to encourage the purchase of flood insurance.

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partners, stakeholders, property owners, and renters about insuring their homes and businesses against flood damage. In 2004, the year in which FloodSmart was implemented, NFIP had 1.05 million policies with subsidized rates. By 2007, this number had increased 8 percent to almost 1.13 million.<sup>23</sup> However, for the reasons discussed earlier, proving a causal relationship is difficult. According to FEMA officials, most populated floodplains participate in NFIP, but communities are still joining.<sup>24</sup> For example from 1978 to 2007, the number of communities participating in NFIP has steadily increased from 15,999 to 20,474. Additionally, FEMA expects as many as 300 new communities to join NFIP in fiscal year 2008, and by the end of the first quarter, 141 communities had already joined.<sup>25</sup>

As of December 31, 2007, NFIP included almost 5.3 million active flood insurance policies on residential properties, nearly 23 percent (1.19 million) of which were charged subsidized premiums. Figure 2 details the number of total residential NFIP policies in each state, as well as the number of those policies that received subsidized premium rates. Approximately 70 percent (3.69 million) of the total policies were concentrated in five states: California, Florida, Louisiana, New Jersey, and Texas. Furthermore, 57 percent (673,964) of the almost 1.2 million residential policies with subsidized premiums were located in the same five states. Because of the high number of policies, these states have historically accounted for the majority of claims losses paid out as well as premium dollars received by the program. According to FEMA data, these states accounted for 59 percent of claims losses from 1978 to 2004 and 67 percent of premium dollars. Taking the 2005 hurricanes into account, the same numbers for 1978 to 2007 changed to 70 percent of claims losses and 66 percent of premium dollars.<sup>26</sup>

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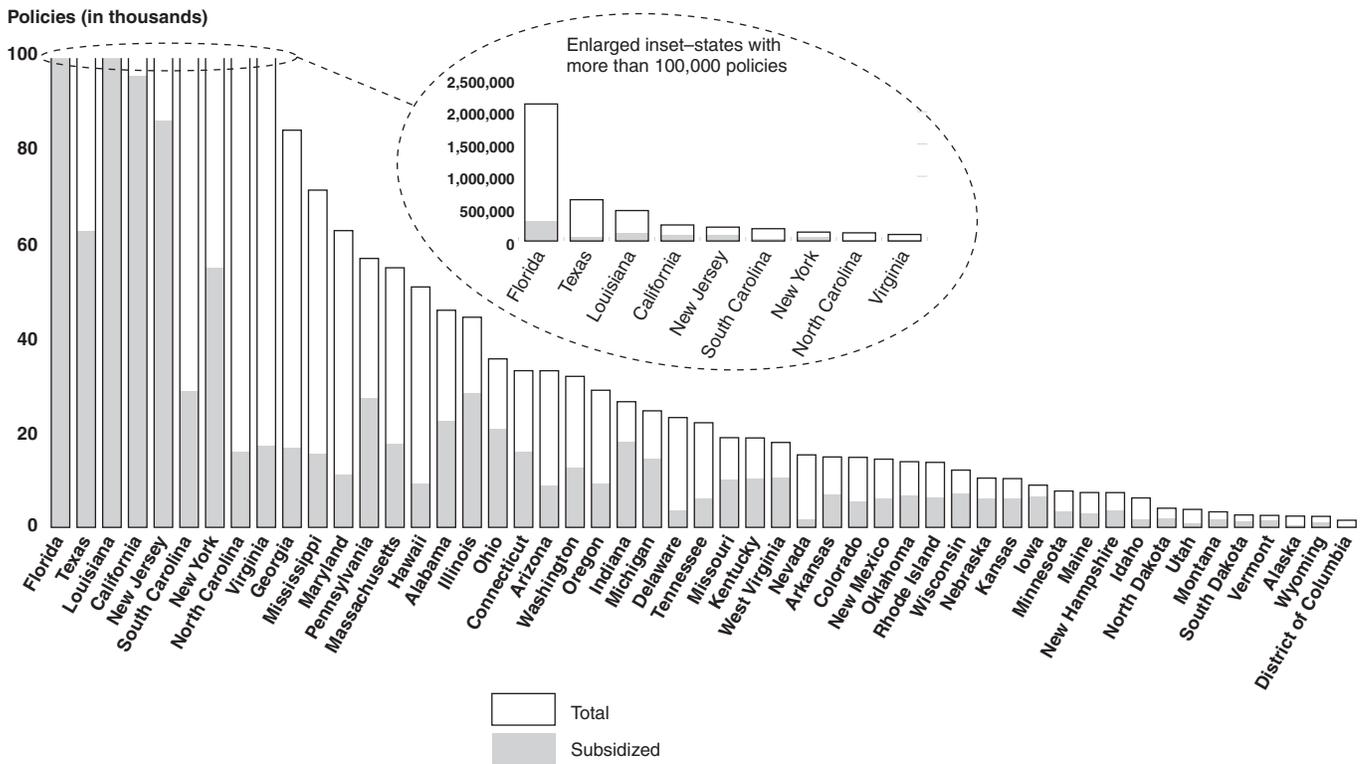
<sup>23</sup>The number of policies in force during the year is calculated based on earned exposure as explained in footnote 20.

<sup>24</sup>Given the voluntary nature of the program, a participating community may not have any flood insurance policies. Participation means, among other things, that a community's residents are eligible to buy flood insurance.

<sup>25</sup>Some newly incorporated communities do not cause an increase in overall policies because residents had already been participating in NFIP through their county.

<sup>26</sup>The increase in percentage of claims losses is primarily the result of the \$13.3 billion paid on Louisiana policies in 2005.

**Figure 2: Subsidized and Total Flood Insurance Policies by State as of December 31, 2007**



Source: GAO analysis of NFIP data.

Note: The numbers in figure 2 represent the number of active policies (on residential properties only).

### Low Market Penetration Leaves Room for Growth in Policies with Subsidized Premium Rates

Low market penetration for NFIP flood insurance policies, particularly in some areas, leaves room for growth in the number of flood insurance policies as FEMA continues to encourage participation in NFIP through FloodSmart. According to a 2006 RAND study commissioned by FEMA, there were approximately 3.6 million single-family homes in SFHAs nationwide, half of which had no flood insurance. The study also found that while about a third of NFIP's policies were for homes outside of SHFAs, NFIP's market penetration rate for such properties was only about 1 percent. Another indicator of the potential for growth is that, according to FEMA data, approximately 2,000 communities do not participate in NFIP, and of the 20,400 that do participate, approximately 3,500 had no NFIP policies and 1,700 others each had only one policy.

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FEMA is aware of the low market penetration rates and has been making efforts to increase the number of flood insurance policies, largely through its FloodSmart campaign. To aid in this effort, FEMA recently purchased more detailed market penetration data, which could allow FEMA to target areas with particularly low participation in NFIP. While these data are not yet finalized, initial calculations suggest that the actual market penetration rate for SFHA structures could be even lower than what the RAND study estimated. For example, some areas of the Midwest and Northeast appear to have considerably lower policy volumes than other areas of the country, based on their flood declarations, cumulative flood claims payments, and population. (See app. II for a more detailed analysis of market penetration.) Similarly, the RAND study found that the Midwest and Northeast had a much lower market penetration than other regions of the United States.

While it is uncertain what percentage of any new policies might be eligible to receive subsidized rates, FEMA officials said that any increase would largely depend on the location of future program participants. Because older structures are more likely to be pre-FIRM, areas of the country with older structures, such as the Midwest, are more likely to have a higher percentage of potentially subsidized properties. The lower market penetration in the Midwest, combined with flood risk awareness resulting from the recent Midwest floods as well as the FloodSmart campaign, could increase participation in NFIP, resulting in a higher proportion of subsidized rates than the current 23 percent. On the other hand, FEMA said that areas of the country with newer structures, such as the Gulf Coast, are likely to have a lower percentage of subsidized policies. Most recent policy growth has been in these regions, so if this trend continues, future additional policies could have a lower proportion of subsidized rates.

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### **Subsidized Properties Have Contributed to NFIP's Historical Operating Deficits and Account for the Majority of Repetitive Loss Properties**

The large number of subsidized properties has contributed to NFIP's historical operating losses through its relatively high loss experience and rates that do not reflect the actual risk of flooding. Therefore, despite the increase in policies with full-risk rates relative to policies with subsidized rates, policies with subsidized rates have continued to be a drain on the program's overall financial condition. For example, while there have been fewer policies with subsidized rates than policies with full-risk rates in every year since 1982, subsidized properties have accounted for more claims payments than properties paying full-risk premium rates in all but 5 of those years. As previously mentioned, subsidized premiums average about 35 to 40 percent of the premium that would fully reflect the

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associated risk of loss. As a result, NFIP has not collected enough in premiums to cover the claims that FEMA estimates will be made on these properties in an average year.<sup>27</sup> From 1986 to 2004, policies receiving subsidized rates resulted in a \$962 million operating deficit.<sup>28</sup> This deficit occurred despite the fact that in 1986, among other things, FEMA finished a series of aggressive rate increases on subsidized properties to ensure that the premiums collected better reflected expected losses.<sup>29</sup> However, in 2005, Hurricanes Katrina, Rita, and Wilma resulted in claims losses that far exceeded those in previous years. As a result of these Gulf Coast hurricanes, FEMA had to borrow \$17.5 billion to pay NFIP claims. Moreover, in 2008, FEMA had to borrow additional funds from the Treasury to pay its interest payment on its outstanding debt to the Treasury. Prior to 2005, policies with subsidized rates accounted for 58 percent of claims dollars paid, but because of the extraordinary nature of the 2005 hurricanes, including that many losses occurred on properties that were located in moderate- to low-risk areas, properties with both subsidized and full-risk rated policies experienced significant losses. Of the total losses from the 2005 hurricanes, 29 percent were from claims paid on subsidized properties, while 71 percent were from full-risk policies. However, the operating deficit for subsidized policies increased substantially, to \$6.3 billion.

Properties with repetitive losses, the majority of which receive subsidized premium rates, have also contributed to NFIP's operating deficit. As previously reported, these properties account for about 1 percent of all policies but are estimated to account for up to 30 percent of all NFIP losses.<sup>30</sup> As of March 2008, there were 126,351 repetitive loss properties, just over 60 percent of which had subsidized rates. Although not all

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<sup>27</sup>In addition to covering claims, premium income is also intended to cover the costs of administering the program, including costs associated with servicing policies and processing claims.

<sup>28</sup>NFIP's overall operating deficit for 1986-2004 was \$928 million. This number is less than the operating deficit for subsidized policies because that operating deficit was offset by slight operating surpluses in some policies that were not included in the subsidized or full-risk categories.

<sup>29</sup>During the 1980s and 1990s, FEMA also implemented other measures that substantially limited the scope of coverage, such as restricting basement coverage and increasing deductibles.

<sup>30</sup>GAO, *National Flood Insurance Program: Financial Challenges Underscore Need for Improved Oversight of Mitigation Programs and Key Contracts*, [GAO-08-437](#) (Washington, D.C.: June 16, 2008).

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repetitive loss properties are part of the subsidized property inventory, given that a high proportion of these properties receive subsidized rates, their propensity for flood losses contributes to the financial risks faced by NFIP. While Congress has made efforts to target these properties, the number of subsidized properties that are also repetitive loss properties has continued to grow, making them an ongoing challenge to the financial stability of the program.

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## Several Options Exist for Addressing the Financial Impact of Subsidized Properties on NFIP, but Each Option Involves Trade-offs

Because of the financial condition of NFIP and mounting losses, the negative financial impact that subsidized premium rates have on the program continues to be an area warranting ongoing attention, as we pointed out when placing NFIP on the high-risk list in 2006. As Congress continues to evaluate the appropriate role of the federal government in insuring natural catastrophes in light of recent events in the Gulf Coast region, evaluating whether to maintain the current system of NFIP subsidies or make changes has been an ongoing part of the debate, as evidenced by various bills that have been introduced in Congress. However, balancing the public policy goals of charging premium rates that fully reflect actual risks, encouraging broad participation in natural catastrophe insurance programs by maintaining affordable rates, and limiting taxpayer costs before and after a disaster will be an ongoing challenge. While the current system of subsidies and voluntary mitigation might promote broad program participation, it does create some exposure for taxpayers and allows rates that do not reflect actual risks. We discuss three broad public policy options for addressing the financial impact of subsidized properties on the financial solvency of NFIP:

- increase mitigation efforts,
- eliminate or reduce use of subsidies, and
- target use of subsidies based on the financial need of the property owner.

Each of the options has both advantages and disadvantages in terms of how it affects the program's public policy goals.

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## The Current System of Subsidies and Limited Mitigation Does Little to Address the Long-Term Financial Instability of NFIP

Subsidizing premiums can encourage participation in NFIP, especially among those who might not be able to afford premium rates that fully reflect the actual risk of flooding. Some proponents believe that charging actuarial risk rates could result in some property owners not buying any flood insurance and NFIP receiving less in total premiums than it would if it allowed subsidized rates. The proponents also assert that continuing the subsidies is also preferable to charging full-risk rates, because while subsidized rates do not cover the actual risk of loss, they at least offset a portion of the cost of providing postdisaster assistance to property owners who might otherwise have no flood insurance and pay no premiums.

One disadvantage of the current approach is that those who receive subsidies are not paying premium rates that reflect the full risk of loss from flooding. As noted previously, not charging full-risk rates contributes to FEMA's challenges in maintaining the financial stability of NFIP. In addition, charging less than full-risk rates can send incorrect signals to property owners about the risks associated with living in certain areas and reduce incentives to undertake mitigation efforts because subsidized rates may distort a property owners view about the financial benefits of mitigation. Further, policies with subsidized rates could result in higher financial losses for NFIP than policies with full-risk rates.

Another disadvantage of the current approach is that although FEMA has stated that it is generally cost-beneficial to mitigate properties, depending on the properties' flooding history and expected future losses, among others, it faces several limitations in attempting to reduce the number of properties receiving subsidized premium rates, including those properties that have the greatest negative financial impact on NFIP. To begin with, mitigation is generally voluntary, except when there has been substantial damage to the insured structure, and participating communities interested in NFIP mitigation funding are required to compete for available funding through one of the available mitigation programs. In addition, even when funds are made available to a community and property owners are interested in mitigating their properties, the property owners may still have to pay a portion of the mitigation expenses, a fact that could discourage mitigation among those unable or unwilling to contribute to the cost of mitigation. For example, local officials and real estate agents in Sonoma County, California, told us that ICC was the primary financial tool used by flooded homeowners to elevate their homes, but because ICC limits mitigation assistance to \$30,000 and the cost of elevating a house in Sonoma County typically is more than twice that, some residents were not able to cover the additional cost and therefore could not take advantage of ICC funds.

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In addition, although FEMA has provided communities with information on which properties have had the most severe repetitive flood losses, current mitigation efforts in participating communities are not necessarily targeted at properties receiving subsidized premium rates that have flooded repeatedly. States and local communities determine their priorities, and some communities, therefore, may focus their mitigation efforts on activities that benefit more than one property, such as regrading the land to control the flow of water and building retaining ponds.

Finally, although mitigation is mandatory when a property has been substantially damaged or renovated, mitigation may not always occur.<sup>31</sup> If the cost of repairing a pre-FIRM structure to its condition before the damage occurred is equal to or greater than 50 percent of that structure's market value before the damage, NFIP requires that the structure be mitigated. However, participating communities, not FEMA, are responsible for enforcing compliance with NFIP regulations and building codes, although FEMA can suspend a community that is not in compliance with NFIP. According to some local stakeholders, not all communities enforce or are able to enforce compliance. For example, local officials in Harris County, Texas, identified one pre-FIRM property owner in the county who has refused the county's offers to buy his property despite repeated offers.<sup>32</sup> According to the county tax office, that property had a market value of \$153,330 in 2007. According to NFIP data, that policyholder had collected over \$975,000 in 15 flood claim payments from 1979 through 2006 for structural damage, ranging from over \$3,000 to \$185,000 per payment.

In spite of these limitations, existing mitigation efforts have resulted in the reduced risk of loss for a number of properties. However, the number of properties mitigated is small compared with the total number of properties receiving subsidized rates. As shown in table 2, nearly 30,000 properties have been mitigated with FEMA funds since fiscal year 1997. However, the number of policies with subsidized rates still increased during that same period from 1.03 million in 1997 to almost 1.13 million in 2007.<sup>33</sup> FEMA

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<sup>31</sup>44 C.F.R. § 9.11.

<sup>32</sup>According to officials of the Harris County Flood Control District, while the Control District can spearhead mitigation activities throughout Harris County, it does not have enforcement authorities. The floodplain management office for the community in which a property is located is responsible for ensuring compliance with NFIP building codes and regulations.

<sup>33</sup>This is the number of subsidized policies measured using earned exposure.

officials have acknowledged that mitigating properties can be difficult, at least in part due to the cost, time, and resources required. According to FEMA, the current average cost to mitigate a residential property ranges from \$143,000 for elevating a property to \$176,000 for acquiring a property.

**Table 2: Number of Subsidized Policies, Repetitive Loss Properties, and Properties Mitigated by Program Type, Fiscal Years 1997-2008**

Fiscal year approved	Number of repetitive loss properties	Number of Properties Mitigated					Increased Cost of Compliance Coverage (ICC) <sup>a</sup>
		Hazard Mitigation Grant Program (HMGP)	Pre-Disaster Mitigation Program (PDM)	Flood Mitigation Assistance (FMA)	Repetitive Flood Claims (RFC)		
1997	76,202	4,843	N/A	205	N/A	N/A	
1998	77,816	1,630	N/A	189	N/A	12	
1999	86,489	2,476	N/A	248	N/A	157	
2000	90,084	462	N/A	187	N/A	229	
2001	94,555	2,097	N/A	201	N/A	189	
2002	95,160	619	N/A	89	N/A	222	
2003	99,429	1,069	515	78	N/A	492	
2004	102,789	678	—	216	N/A	647	
2005	112,768	684	727	246	N/A	866	
2006	123,927	129	42	244	41	1,870	
2007	127,268	59	152	352	40	4,309	
2008		N/A		N/A		2,447	
<b>Total</b>		<b>14,746</b>	<b>1,436</b>	<b>2,255</b>	<b>81</b>	<b>11,440</b>	

Source: GAO analysis of FEMA data.

N/A = not applicable

<sup>a</sup>Because ICC funds can be used in concert as non-matching Federal funds with the FEMA mitigation grant programs that require a non-matching Federal fund, there may be some instances of double-counting among the ICC and the other programs.

Note: Mitigation projects include elevation, relocation, and acquisition. HMGP, PDM, and FMA data are as of May 5, 2008. ICC data are as of February 29, 2008. Fiscal year 2004 and fiscal year 2005 PDM data were combined into a single application period. The Severe Repetitive Loss (SRL) Pilot Program is not included because no funding has been obligated as of May 2008 (\$160 million has been appropriated). Repetitive loss property numbers are as of the end of each fiscal year. These numbers are slightly different from similar numbers listed in a prior report ([GAO-08-437](#)) because the numbers in the prior report are as of the end of each calendar year. PDM program started in fiscal year 2003. The first year of RFC appropriations was fiscal year 2006.

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After the passage of the Bunning-Bereuter-Blumenauer Flood Insurance Reform Act of 2004, FEMA officials made mitigating repetitive loss properties a priority, especially those with severe repetitive losses. FEMA has identified approximately 7,000 properties as having had experienced severe repetitive losses. Over 1,400 properties of these severe repetitive loss properties have received cumulative claims payments ranging from \$200,000 to over several million dollars per property. Although each property must be subject to an individual cost-benefit determination to reflect its unique characteristics and expected future losses, because these aggregate payments were above the average mitigation costs, mitigation may be cost-effective for many of them if similar losses were expected in the future. However, FEMA officials told us that they did not anticipate being able to totally eliminate severe repetitive loss properties given the current funding level for the Severe Repetitive Loss Pilot Program of \$160 million for fiscal years 2006 through 2008, and uncertainty over ongoing appropriations for this program.

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### Options Exist That Could Help Reduce the Number of Subsidized Properties and Their Financial Impact on NFIP

Reducing the financial impact of subsidized properties on NFIP would generally involve either reducing the number of properties receiving subsidized premium rates, reducing the losses associated with these properties, reducing the amount of the subsidy, or some combination of these approaches. Whether maintaining the current program or making changes to NFIP subsidies, Congress will be faced with balancing often-competing public policy goals, which include charging premium rates that more fully reflect actual flood risks and help better ensure NFIP solvency, encouraging broad participation in natural catastrophe insurance programs by offering affordable rates, and limiting taxpayer costs before and after a disaster.<sup>34</sup> We discuss three broad options that could help address NFIP's financial situation: (1) increase mitigation efforts, (2) eliminate or reduce use of subsidies, and (3) target use of subsidies on the financial need of property owners. Each of the three options has both advantages and disadvantages in terms of its effect on these public policy goals, which we highlight in table 4. We also note that the options are not mutually exclusive and may be used in conjunction with others, and that

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<sup>34</sup>Over the years Congress has considered a variety of reforms to NFIP, including targeting subsidized policies. Current bills include the Flood Insurance Reform and Modernization Act, H.R. 3121, 110th Cong. (2007) and the Flood Insurance Reform and Modernization Act, S. 2284, 110th Cong. (2007). Our options are not based on any particular legislation or proposal but rather reflect broad public policy concepts.

how an option is implemented can affect its advantages and disadvantages.

**Table 3: Advantages and Disadvantages of Options for Addressing NFIP’s Subsidized Premium Rates**

Option	Advantages	Disadvantages
Increase mitigation efforts	<ul style="list-style-type: none"> <li>• Could reduce flood losses, especially by focusing mitigation efforts on properties with repetitive losses</li> <li>• Could increase the number of property owners paying full-risk rates by denying subsidized rates to those who refuse mitigation offers</li> <li>• Could receive support from local communities because of potential positive effect of mitigation on property values</li> </ul>	<ul style="list-style-type: none"> <li>• Maintaining subsidies could reduce subsidized property owners’ motivation to undertake mitigation efforts that would reduce their risk of loss and their premium rate</li> <li>• Extensive mitigation efforts could be expensive to taxpayers</li> <li>• Extensive mitigation efforts could take years to complete and subsidized rates would continue to negatively affect NFIP’s financial health in the interim</li> <li>• Effectiveness of mitigation efforts could be limited by heavy reliance on local communities with varying resources</li> </ul>
Reduce or eliminate subsidies across the board	<ul style="list-style-type: none"> <li>• Would charge more property owners premium rates that more accurately reflect the risk of flood loss (decrease the inventory of subsidized properties)</li> <li>• Higher premium rates could motivate property owners to undertake mitigation in order to reduce their rates</li> <li>• Would provide more accurate information to homeowners about their risk of flooding</li> </ul>	<ul style="list-style-type: none"> <li>• Increased premium rates could reduce program participation, both at the policyholder and community level, potentially resulting in increased costs to taxpayers of providing disaster assistance for catastrophic events</li> <li>• Could be resisted by local communities because of potential negative impact on residents and local economy</li> </ul>
Base subsidies on the financial need of policyholder	<ul style="list-style-type: none"> <li>• Would charge more property owners premium rates that more accurately reflect the risk of flood loss (decrease the inventory of subsidized properties)</li> <li>• Would continue to benefit those in greatest financial need by keeping rates affordable</li> <li>• Higher premium rates for some could motivate property owners to undertake mitigation in order to reduce their rates</li> </ul>	<ul style="list-style-type: none"> <li>• Increased premium rates for some could reduce program participation</li> <li>• Requiring property owners to apply for subsidies could reduce participation for those in greatest need</li> <li>• Implementing a new program in the midst of existing management and oversight challenges could pose additional challenges for FEMA and the insurance companies that sell and service flood insurance</li> </ul>

Source: Summarized views of FEMA officials, state and local officials, insurance experts, and other stakeholders.

Note: Variations in how each of the options is ultimately implemented could result in additional advantages and disadvantages.

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Expanding Mitigation Efforts  
Could Reduce the Number of  
Subsidized Properties and  
Associated Losses but Would  
Be Costly to Taxpayers

One option to address the financial impact of subsidized premium rates on NFIP would be to substantially expand flood mitigation efforts, including targeting those properties that have been most costly to the program. This option would substantially expand the requirements of the Bunning-Bereuter-Blumenauer Flood Insurance Reform Act of 2004, which mandated mitigation for insured properties that have received four or more flood claims payments totaling more than \$20,000 or two claims payments whose total exceeds the value of the property and created the Severe Repetitive Loss Pilot Program to help carry out such mitigation. This option would have a more restrictive criterion, which could increase the number of subsidized properties for which mitigation is required. Mitigation could be required for all insured properties that have filed two or more flood claims, irrespective of claims total; subsidies could be eliminated for property owners who refuse or do not respond to a mitigation offer; or some combination of these approaches.<sup>35</sup> This option would require increased funding for mitigation purposes.

This option has several advantages. First, it could reduce flood losses by ensuring that more homes were better protected from flooding through mitigation, whether it was through elevation, relocation, or demolition. Because many repetitive loss properties have subsidized premiums—that is, rates that do not reflect their actual risk of flooding—increased mitigation could reduce the claims payments the program makes on these properties and could ultimately reduce taxpayer exposure in the long term. As the congressional findings in the Bunning-Bereuter-Blumenauer Flood Insurance Reform Act of 2004 noted, and as FEMA officials concurred, mitigating repetitive loss properties through buyouts, elevations, relocation, flood-proofing, or regrading and other engineering projects would produce savings for policyholders and for federal taxpayers through reduced flood insurance losses and federal disaster assistance. Second, denying subsidies to those who refuse or do not respond to mitigation offers could increase the number of property owners paying full-risk rates and encourage mitigation. Third, FEMA could build upon its existing mitigation programs and thus continue targeting those properties that have been most costly in terms of claims paid while maintaining current subsidy rates. As we have noted, subsidies have been used to encourage participation in the program. Local officials generally

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<sup>35</sup>This more restrictive criterion mandating mitigation for repetitive loss properties was considered by Congress in a bill related to the legislation that became the Bunning-Bereuter-Blumenauer Act, which established the current criterion of four or more claims.

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support increased mitigation efforts. Reducing flood risk generally increases property values and, as a consequence, the local tax base. And as we have seen, participation from local communities is critical for successful mitigation efforts.

However, there are several disadvantages associated with this option. First, because subsidized rates do not reflect a property's actual flood risk, subsidized property owners might not be motivated to undertake mitigation efforts that would reduce the risk of flood and their premium rate. Second, substantially increasing mitigation efforts would be costly and would require increased funding for FEMA's mitigation programs. As stated earlier, about 1.2 million policies received subsidized rates in 2007, including approximately 7,000 severe repetitive loss properties. FEMA estimates that the average mitigation cost would range from about \$143,000 to about \$176,000 per residential property. Buyouts and relocations would be more costly in areas of the country with relatively expensive real estate. Applying FEMA's mitigation cost range per property to the number of severe repetitive loss properties results in an estimated cost range of approximately \$1 billion to approximately \$1.2 billion. Applying the same calculation to the rest of the repetitive loss properties would add over \$17 billion to over \$22 billion to the estimate. However, mitigation costs would have to be weighed against the possible savings from a decrease in flood damage that would result from mitigation.<sup>36</sup>

Third, the mitigation process is often lengthy, and mitigating a large number of properties could take a number of years to complete, and until then, subsidized premium rates would continue to negatively affect the program's financial health. Fourth, FEMA's reliance on local communities to undertake and enforce mitigation activities could limit the effectiveness of these efforts. Despite being a national program, NFIP relies on state and local communities to ensure the program's implementation and success. While local communities recognize the importance of mitigation, not all communities have the staff or resources to fully carry out current mitigation efforts, meet the cost-sharing requirement (generally 25 percent of the eligible project costs, which either the community or the property owner could provide) that four of the five mitigation programs require, and enforce noncompliance requirements. Some communities, in fact,

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<sup>36</sup>In 2000, FEMA estimated that mitigation efforts on all post-FIRM properties, not just repetitive loss properties, could result in savings with a present value of \$18.7 billion over the period from 2000 to 2010, including savings from locally administered flood mitigation requirements and NFIP flood mitigation grants.

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Eliminating or Reducing  
Subsidies Would Ensure That  
Rates Better Reflect Actual  
Risk but Could Reduce  
Participation

require the homeowner to provide the cost-sharing requirement. Moreover, it is the responsibility of the local floodplain management agencies to enforce compliance with the ordinances by, for example, ensuring that property owners undertake proper mitigation efforts and by issuing appropriate work permits for the damaged property. Some communities may not have sufficient resources for expanded efforts in these areas. In addition, certain types of mitigation, such as relocation or demolition, might be met with resistance by communities that rely on those properties for tax revenues, such as coastal communities with significant development in areas prone to flooding.

A second option—eliminating or reducing the subsidies—would meet the public policy goals of charging premium rates that more fully reflect actual risks. Because FEMA would be able to charge more policyholders premium rates that more closely represent actual flood risk, the premiums collected would more closely reflect the losses that the agency expected to incur, contributing to the financial health of NFIP. One way to implement a reduction of the subsidies is to base the rate on the number and amounts of flood claims per property. In other words, if a property has a certain number of claims, the subsidy would be rerated and the policyholder could be required to pay a higher premium. Another way is to eliminate subsidies for certain categories of subsidized properties, such as nonprimary residences (vacation homes or rental properties) or to limit subsidies to existing property owners.

Another advantage to eliminating or reducing subsidies is that the resulting higher premium rates could motivate property owners to undertake mitigation efforts in order to reduce those premium rates. More mitigation could, in turn, result in less flood damage, lower losses for NFIP, and potentially lower taxpayer exposure. Moreover, by paying the rate that more closely reflects the actual risk of flooding, property owners who previously had paid subsidized premiums would better understand the actual costs and risks associated with living in certain areas.

However, this option has at least two disadvantages. First, while many current NFIP policyholders are required by their lenders to maintain those policies, the elimination of subsidies, according to various stakeholders and a 1999 study commissioned by FEMA, would on average more than double these policyholders' premium rates and may result in reduced participation in NFIP over time as people either dropped their policies or were priced out of the market. Even reducing subsidies could increase the financial burden on some existing policyholders—particularly low-income policyholders—and could cause some of them to leave the program. As a

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result, if owners of pre-FIRM structures, which suffer the greatest flood loss, cancel their insurance policies, the federal government—and ultimately taxpayers—could likely face increased costs in the form of FEMA disaster assistance grants and low-interest disaster loans from the Small Business Administration (SBA) in future floods.<sup>37</sup> To the extent that higher premium rates would lead some property owners to decide not to purchase flood insurance, those property owners would not be eligible for NFIP mitigation assistance, reducing the likelihood that they would undertake mitigation efforts to reduce their flood risk.<sup>38</sup> Furthermore, some FEMA officials said that a lack of subsidies could cause communities to drop out of NFIP. These communities would no longer be eligible for federal mitigation assistance or be subject to mandatory purchase requirements. Moreover, they would not have to comply with NFIP floodplain management standards and building codes, raising the possibility that residents would construct properties that had a high risk of being damaged by a flood.

Second, we found that some communities might resist the elimination or reduction of subsidies because of the potential effect on residents. For example, some officials in one Texas community with a large rental population and low-income residents said that eliminating or reducing the subsidy would negatively affect their residents. Premium rate increases on rental properties likely would be passed to the tenants, some of whom are low-income tenants, thus creating a potential hardship. Officials in an Ohio community we visited said that many businesses would be unable to afford full-risk premiums, which would have a negative effect on their economy.

**Need-Based Subsidies Could Ensure That More Policyholders Paid Full-Risk Rates but Could Create Implementation Challenges**

A third option would be to target premium rate subsidies to those policyholders who had the greatest financial need based on a means-based test. As currently structured, the subsidy is tied to the property, not the property owner, and any pre-FIRM property located in an SFHA in a participating community is eligible for a subsidy. And as mentioned previously, when a pre-FIRM property is sold, the new owner is also

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<sup>37</sup>As mentioned previously, homeowners receiving disaster assistance are generally required to purchase flood insurance. SBA makes federally subsidized loans to repair or replace homes, personal property, or businesses that sustain damages not covered by insurance.

<sup>38</sup>However, they are still eligible for disaster assistance authorized by the Robert T. Stafford Disaster Relief and Emergency Assistance Act.

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eligible for the subsidy. Additionally, the program does not take into account any characteristics of the owner, such as income level, or consider how the property is used—for example, as a residence, vacation home, or rental. FEMA does currently offer a temporary subsidized premium rate based on the financial need of the property owner through its Group Flood Insurance Policy (GFIP) program. Under that program, property owners in federally declared disaster areas apply to state based Individual and Family Grant (IFG) programs and, if accepted based on their financial need, are eligible to receive a flat premium rate of \$200 per year for three years. After the three year period the rates would be adjusted to the appropriate rate for that location and property.

This needs-based option would remove the subsidy from the property and instead attach it to the policyholder on the basis of need as determined by specified financial requirements and eligibility criteria. Means-tested programs are not new to the federal government. Over the years, Congress has established about 80 separate programs to provide cash and noncash assistance to low-income individuals and families. Such programs provide a means of delivering assistance to those in need, and we have made recommendations to simplify the process for determining financial eligibility for various programs.<sup>39</sup>

Depending on how the option was implemented, a potential advantage to this option would be that more policyholders would have to pay the full-risk rate and that those eligible for the subsidy would be made aware of the full-risk rate before applying for the subsidy. As a result, more policyholders would be aware that they were receiving subsidies and would better understand the actual costs and risks associated with living in certain areas. In addition, because some policyholders would no longer be receiving a subsidy, FEMA would be collecting more in premiums. Increased premium collection would improve NFIP's ability to make claims payments, reduce its need to borrow from the U.S. Treasury, and potentially limit taxpayer exposure. Further, because the only policyholders who would lose their subsidies generally would be those who were deemed able to afford full-risk rates, to the extent that higher rates would negatively affect the program, potentially fewer property owners may drop their insurance as compared with other nontargeted options for reducing subsidies. The program would benefit those in

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<sup>39</sup>GAO, *Means-Tested Programs: Determining Financial Eligibility Is Cumbersome and Can Be Simplified*, [GAO-02-58](#) (Washington, D.C.: Nov. 2, 2001).

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greatest financial need. Finally, charging higher rates that more accurately reflect the risk of flooding may motivate policyholders to undertake mitigation to reduce their premium rates.

However, this option has several disadvantages. Eliminating subsidies and requiring those who are deemed able to afford them to pay full-risk rates could cause some property owners to stop buying flood insurance. Even though a means-based test might determine that some property owners did not qualify for subsidies, the higher cost of the full-risk rate premiums could lead some to decide not to purchase coverage and instead rely on federal disaster assistance, which generally requires that they purchase flood insurance as a condition of the assistance. In addition, requiring property owners to go through an application process to receive subsidized premium rates, rather than receiving them on the basis of their property's characteristics, could discourage some property owners with limited resources and in greatest need of coverage from applying for the subsidy.

This option also would involve certain implementation challenges in the midst of other ongoing management challenges for NFIP. To implement this option, FEMA first would need to determine how to design the program and determine how to conduct the means test. Depending on how the program was designed, FEMA might need to collect or purchase data on income and wealth of property owners to help determine eligibility benchmarks. In addition, FEMA would need to devote resources, including staff, to developing, implementing, and monitoring the means test program. For example, FEMA would need to develop eligibility benchmarks and a process for applying for and awarding subsidies. The agency would need to determine who would conduct the tests and certify the results—that is, whether FEMA, state and community officials, the Write-Your-Own insurance companies that currently serve as the delivery system for NFIP, or some other entity would perform these activities.<sup>40</sup> FEMA also would need to establish an oversight mechanism to ensure that the program was operating as intended. Finally, FEMA would have to ensure that costs of the subsidies and the costs associated with administering means-based testing did not result in costs that were larger than the current subsidies. FEMA could use existing programs in other

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<sup>40</sup>Write-Your-Own companies are private insurers that sell and service policies and adjust claims for NFIP.

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agencies to formulate a template for means testing in order to make implementation easier.

Moreover, addressing these challenges could be difficult for the agency, which is already in the process of addressing management and oversight challenges. As we have previously reported, FEMA faces challenges in providing oversight of its contractors, state and local partners, and Write-Your-Own insurance companies, as well as overseeing claims adjustments and its map modernization program.<sup>41</sup> New management challenges created by implementing a means-based test could make addressing these existing challenges more difficult and may require additional staff.

While any of these options—or a combination of them—could help reduce the adverse impact of subsidies on the financial health of NFIP, the potential would still exist for claims to exceed losses in any given year. As we have seen in 2008, flood losses are volatile and highly unpredictable, and estimating future losses and determining premium rates adequate to cover those losses is an inherently difficult process. In addition, even if subsidized rates were eliminated, the potential for catastrophic losses could still result in NFIP needing to borrow from the Treasury to pay losses. Absent a change in the NFIP's use of subsidized premium rates, however, the subsidies will continue to hinder the financial stability of the program, and the potential further increases in the number of properties receiving subsidies could make the situation worse. Therefore, implementing any or a combination of these options could significantly reduce the adverse financial impact of subsidies on NFIP.

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## Agency Comment and Our Evaluation

We provided a draft of this report to the Department of Homeland Security (DHS) for comment. It provided written comments that are reprinted in appendix III. In its written comments, DHS expounded upon several topics discussed in the report. First, DHS noted that it is aware of the financial impact of subsidized and repetitive loss properties on the NFIP, and stated that while it has proposed a number of initiatives through the years, most of these were not welcomed by stakeholders. Second, DHS noted that amendments to current statutes and rules would be needed if FEMA were to require mitigation via a grant program beyond the substantial damage provision that currently is the only provision that triggers mandatory mitigation. We recognize that some aspects of the options discussed in this

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<sup>41</sup>See [GAO-08-437](#).

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report would require legislative changes. However, we would encourage FEMA to continue to pursue actions to address the financial drain on NFIP brought about by subsidized premium rates, such as the planned 2009 increase in the standard deductible for subsidized policyholders as mentioned in its comments. Third, DHS recognized that a needs-based subsidy could be beneficial, but it recommended that the burden of making needs-based determinations be placed on someone other than the insurance agent and that a discussion be held on how the costs of discounted premiums would be borne. We noted in the report that a needs-based program could be implemented in a number of ways, and agree that careful study would have to be done before implementing such a program. DHS also described a current program where some participants receive subsidized premium rates based on their short-term financial need, with the needs determination performed by a third party. We have added a discussion of this program to the report and note that this may provide useful insights to a broader-based approach. DHS also provided technical comments, which we have incorporated as appropriate.

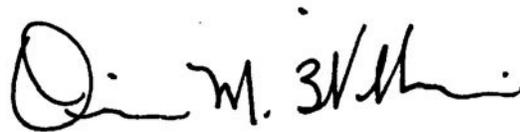
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As agreed with your office, unless you publicly announce the contents of this report earlier, we plan no further distribution of this report until 30 days from the report date. At that time, we will provide copies to the Chairman, Senate Committee on Banking, Housing, and Urban Affairs; the Chairman and Ranking Member of the Senate Committee on Homeland Security and Governmental Affairs; the Chairman and Ranking Member of the House Committee on Financial Services; the Chairman and Ranking Member of the House Committee on Homeland Security; and other interested committees. We are also sending a copy of this report to the Secretary of Homeland Security and other interested parties. In addition, the report will be available at no charge on our Web site at <http://www.gao.gov>. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report.

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If you or your staff has any questions about this report, please contact me at (202) 512-8678 or [williamso@gao.gov](mailto:williamso@gao.gov). GAO contact and staff acknowledgments are listed in appendix IV.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Orice M. Williams". The signature is fluid and cursive, with a large initial "O" and a distinct "M." followed by a stylized "Williams".

Orice M. Williams  
Director, Financial Markets  
and Community Investment

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# Appendix I: Scope and Methodology

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To provide information on the National Flood Insurance Program's (NFIP) inventory of subsidized properties in terms of size, location, and financial impact on NFIP, we obtained data on policies, claims, and repetitive losses from the Federal Emergency Management Agency's (FEMA) private contractor, Computer Sciences Corporation, that maintains various NFIP databases. We obtained data pertaining to NFIP and NFIP subsidized and full-risk policies from 1978 through June 2008, including information on policies, premiums, and claims. We used these data to analyze the size, growth, costs, geographic distribution, and market penetration of the subsidized inventory and total inventory nationwide and for states and counties. We also reviewed relevant FEMA reports and analysis on these factors. We assessed the reliability of FEMA's policy and claims data by (1) reviewing existing information about the data and the system that produced them, (2) interviewing agency officials knowledgeable about the data, and (3) performing electronic testing of required data elements. We determined that the data were sufficiently reliable for the purposes of this report.

Originally, we planned to construct a comprehensive nationwide profile of subsidized properties and policyholders by merging vendor data containing market values of subsidized properties and income data of owners with NFIP policy and claims data. To do this, we met with private vendors that, for marketing purposes, collect and sell nationwide statistics on real estate market values and transactions and household incomes. Specifically, we explored ways to develop nationwide comparisons of subsidized and full-risk properties—for example, comparing market values and household income—within and across geographic areas. However, we were unable to identify data sources that would enable us to pull statistically valid samples of subsidized properties and policyholders nationwide that could be projected to the entire inventory of subsidized and full-risk properties. While we were able to identify sources that had nationwide data, the vendors we contacted lacked data on real estate values in certain areas of the country. The omitted areas not only included rural areas, but also some areas with large populations, such as parts of Louisiana and Texas—both of which have large numbers of subsidized properties. We also determined that matching individual property addresses maintained on an NFIP database and a vendor database would create inconsistencies that would prohibit a valid nationwide sample, thereby preventing us from extrapolating any results nationwide. In 2007, the Congressional Budget Office (CBO) attempted to produce a similar nationwide profile by merging vendor and NFIP data, but its match rates for addresses between databases were too low and thus the results from its study were limited to the properties that they were able to match and

could not be generalized nationally. We spoke with CBO officials regarding their study.

As an alternative to the national profile, we planned to construct profiles for the five counties that we judgmentally selected for site visits (our methodology and purpose for the site visits are discussed below). This alternative effort involved matching NFIP data on individual properties with county tax records, local real estate listings, and other local sources that might have data on those properties. However, we determined that this approach also would not produce match rates high enough to produce countywide profiles for three of the five counties, and data from the two remaining counties were not usable for our purposes. For example, we found that conventions for mailing addresses varied considerably across the five counties and differed from the NFIP data. While counties and NFIP use U.S. Postal Service's address standardization format, NFIP also permits descriptive addresses, such as "Third Cabin on Beulah Lake," "N Side of Shell Belt Rd," and "5 Houses From Johnson's Seafood," which made address matching difficult. In addition, we found certain data not to be useful for our purposes. For example, local property tax records did not maintain comparable market values of properties. In one county we found that tax records contained last sale information that, for many properties, could be several years old if the properties were not sold annually, and did not reflect current market values of those properties. In another county, tax records did not have information on selling prices of properties because state law prohibited public disclosure of this information. Thus we decided not to pursue this alternative effort.

Finally, to satisfy the objective, we selected and visited a judgmental sample of five counties across the country (Sonoma County, California; Pinellas County, Florida; Jefferson County, Missouri; Washington County, Ohio; and Harris County, Texas). Our purpose was to obtain available information on the characteristics of subsidized properties in these counties (such as types of structures, flooding history, and market values) and characteristics of their policyholders (such as income and perceived benefits obtained from subsidized rates). We also sought to understand similarities and differences in how NFIP is implemented within each locality. We selected counties with NFIP communities that had completed NFIP's map modernization in order to have timely data to help construct profiles of properties in these counties. We selected a mix of coastal and inland counties in order to capture coastal and riverine types of flooding. We selected from counties that had large numbers or percentages of subsidized properties, large numbers of repetitive loss properties, and large cumulative historical dollars of claims losses paid in order to capture

areas likely to have had meaningful, if not extensive, experience dealing with flooding and NFIP. During our visits to the five counties, we met with local floodplain managers, property tax appraisers and assessors, building permit officials, civil engineers, real estate agents, flood insurance agents, flood claims adjusters, and other relevant parties. We discussed local flooding history, flood plain management, building standards, flood claims adjusting, and real estate values and taxes as they pertained to implementation of NFIP generally, and NFIP subsidized properties in particular. We also spoke with officials from the five FEMA regional offices responsible for these counties. Tables 5 through 7 compare the five counties using a number of factors. While these five counties are not a complete representation of the entire body of NFIP communities, their diversity across multiple factors contributed to our understanding of the administration of NFIP at the local level.

Table 5 compares the five counties by population, area, population density, housing density, household income and housing values and shows the ranges in these factors across the counties, as well as the types of flooding and the percentages of land area in the floodplain.

**Table 5: Demographics and Other Characteristics of the Five Counties Selected for Site Visits**

	Pinellas County, Florida	Harris County, Texas	Washington County, Ohio	Jefferson County, Missouri	Sonoma County, California
<b>2006 ACS estimates<sup>a</sup></b>					
County population	924,413	3,886,207	61,867	216,469	466,891
Median household income	\$41,945	\$47,129	\$34,275	\$53,434	\$60,821
Median value of owner occupied home	\$205,200	\$126,000	\$80,400	\$150,900	\$618,500
<b>2000 Census<sup>b</sup></b>					
County population	921,482	3,400,578	63,251	198,099	458,614
Square miles of land	280	1,729	635	657	1,576
Square miles of water	328	49	5	7	192
Population per square mile	3,292	1,967	100	302	291
Housing units per square mile	1,720	751	44	115	116
<b>Other characteristics</b>					
County seat or major city <sup>c</sup>	St. Petersburg	Houston	Marietta	Arnold (St. Louis suburb)	Santa Rosa
Percentage of county's land in floodplain <sup>d</sup>	44.50%	24.50%	5.90%	11.00%	0.40%

Appendix I: Scope and Methodology

	Pinellas County, Florida	Harris County, Texas	Washington County, Ohio	Jefferson County, Missouri	Sonoma County, California
Types of flooding <sup>e</sup>	Coastal, inland	Shallow and flash flooding, effects from tropical storms	Convergence of two Rivers over bank and back-water flooding	Riverine, inland	Russian River over bank flooding and runoffs from local rivers

Sources:

<sup>a</sup>U.S. Census Bureau, 2006 American Community Survey, except for Washington County, OH, where 2000 ACS data are used.

<sup>b</sup>U.S. Census Bureau, American Fact Finder, Geographic Comparison Table, United States - County by State, GCT-PH1 - Population, Housing Units, Area, and Density, Census 2000.

<sup>c</sup>Encyclopedia Britannica Online for four of the counties, and Jefferson County, Missouri web site (<http://www.jeffco.org/clerk/serv/census.html>) and Arnold web site (<http://www.arnoldmo.org/>) for City of Arnold

<sup>d</sup>GAO analysis of county digital flood maps from FEMA.

<sup>e</sup>From GAO interviews with flood plain managers and others during site visits.

Table 6 shows policies in force and cumulative claims paid broken down by subsidized and total and the percentages for subsidized for the five counties. In each of the five counties, cumulative claims paid on subsidized policies were a higher percentage of cumulative total claims paid than were subsidized policies in force as a percentage of total policies in force.

**Table 6: NFIP Policies in Force and Cumulative Claims Paid in the Five Selected Counties**

	Pinellas County, Florida	Harris County, Texas	Washington County, Ohio	Jefferson County, Missouri	Sonoma County, California
<b>Number of policies in force as of December 31, 2007:</b>					
Total NFIP policies	145,409	141,000	870	1,167	3,323
Total subsidized policies	53,629	3,886	552	677	1,432
Subsidized policies as a percentage of total policies	36.9 %	2.8%	63.4%	58.0%	43.1%
<b>Cumulative claims paid from 1978 through 2007:</b>					
Total claims paid	\$274,495,724	\$1,054,140,647	\$7,602,961	\$55,338,351	\$113,781,148
Claims paid on subsidized policies	\$251,808,017	\$380,030,682	\$5,115,876	\$51,380,048	\$98,258,616
Claims from subsidized properties as a percentage of total claims paid	91.7%	36.1%	67.3%	92.4%	86.4%

Source: GAO analysis of data from FEMA

Table 7 compares repetitive loss properties across the five counties using the number of repetitive loss properties still insured versus the number of repetitive loss properties no longer insured, and the number and dollars of loss payments for these groups.

**Table 7: Comparison of Repetitive Loss Properties Historically (1978-2007) and Current (as of December 31, 2007) in the Five Selected Counties**

	Pinellas County, Florida	Harris County, Texas	Washington County, Ohio	Jefferson County, Missouri	Sonoma County, California
<b>Number of Repetitive Loss Properties</b>					
Total from 1978-2007	1,502	7,904	195	589	891
Still insured by NFIP on 12/31/2007 <sup>a</sup>	912	3,762	146	91	516
Percent insured by NFIP on 12/31/2007	60.7%	47.6%	74.9%	15.4%	57.9%
<b>Number of Losses</b>					
On all repetitive loss properties, 1978-2007	4,360	26,260	472	1,904	2,826
On repetitive loss properties still insured on 12/31/2007	2,775	12,458	363	334	1,756
Percent on properties still insured on 12/31/2007	63.6%	47.4%	76.9%	17.5%	62.1%
<b>Dollars of Loss Payments</b>					
On all repetitive loss properties, 1978-2007	\$71,362,594	\$773,672,643	\$11,017,041	\$25,942,075	\$64,122,633
Percent on repetitive loss properties still insured on 12/31/2007 <sup>b</sup>	66.7%	51.0%	85.8%	20.2%	68.1%

Source: GAO analysis of NFIP data from BureauNet.

<sup>a</sup>Repetitive loss properties that have been mitigated through buyout and demolition are no longer considered insured.

<sup>b</sup>Still insured<sup>23</sup> refers to repetitive loss properties insured by NFIP as of December 31, 2007 either through Write Your Own companies or Special Direct Facilities.

To evaluate NFIP’s existing structure and identify and evaluate options for reducing or eliminating the costs of properties insured at subsidized premium rates and the advantages and disadvantages of these options, we analyzed NFIP’s legislative history, which described the objectives of NFIP overall and NFIP subsidies in particular, and original expectations about the subsidized inventory. We also reviewed more recent legislation, including the Robert T. Stafford Disaster Assistance and Emergency Relief

Act and the Bunning-Bereuter-Blumenauer Flood Insurance Reform Act of 2004, which established the Severe Repetitive Loss Pilot Program. We discussed nationwide mitigation strategies and related efforts and costs for repetitive loss properties, including severe repetitive loss properties with FEMA officials. In our visits with local entities in the five counties as noted above, we also obtained available information on resources, expenditures, and costs of individual mitigation efforts. We also discussed these issues with FEMA regional offices responsible for the five counties.

Finally, we analyzed FEMA's statistics on repetitive loss properties including cumulative historical claims costs and the number of these properties mitigated in the five counties we visited and nationwide. We also analyzed relevant information in various other studies, including two of our studies discussing public policy goals for federal involvement in catastrophe insurance.<sup>1</sup>

We conducted our work between December 2006 and November 2008 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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<sup>1</sup>GAO, *Natural Disasters: Public Policy Options For Changing The Federal Role In Natural Catastrophe Insurance*, [GAO-08-7](#) (Washington, D.C.: Nov. 26, 2007); and *Natural Catastrophe Insurance: Analysis of a Proposed Combined Federal Flood and Wind Insurance Program*, [GAO-08-504](#) (Washington, D.C.: Apr. 25, 2008)

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# Appendix II: Some Areas of the Country That Appear to Have a Potential for an Increase in the Number of NFIP Policies

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Recent flooding, especially in the Midwest in 2008, highlights the devastation that can be caused from flooding. This appendix provides examples of areas of the country that appear to have higher populations and flooding risks relative to their policy volumes when compared to other areas, and thus have the potential for increases in the number of NFIP policies. As we noted in the report, an increase in market penetration would also likely bring an increase in the number of subsidized policies. We identified the examples by comparing the number of NFIP policies in a given area, as of September 2006, with the total number of county flood declarations from January 1980 to June 2008, cumulative flood claims payments from January 1978 to April 2008, and population as of 2004 for counties and 2005 for states.

## **Example 1: Some Midwestern and Northeastern states and counties that appeared to have a higher history of flood losses relative to policy counts than other areas of the country**

- The five combined states of Iowa, Michigan, Minnesota, Missouri, and Wisconsin, when compared to Collier County, Florida, had more county flood disaster declarations (2,092 versus 12), significantly more flood claims payments (\$704,706,000 versus \$12,483,000), and a much larger population (28,906,000 versus 297,000), but a similar number of NFIP policies (80,572 versus 85,246).
- Maine, when compared to Idaho, had significantly more flood claim payments (\$36,332,000 versus \$4,754,000) and county flood disaster declarations (159 versus 42), but a similar number of NFIP policies (7,891 versus 7,079). The states also had similar populations: 1,285,000 for Maine and 1,480,000 for Idaho.
- Wisconsin, when compared to Rhode Island, had many more county flood disaster declarations (276 versus 11), but had similar flood claims payments (\$32,693,000 versus \$34,219,000). Even though Wisconsin has a much larger population (5,479,000 versus 1,012,000), it has a similar number of NFIP policies (12,945 versus 14,432).
- Iowa, when compared to New Mexico, had almost 10 times more county flood disaster declarations (558 versus 56), and about eight times more in flood claims payments (\$65,915,000 versus \$8,038,000) but almost 30 percent fewer policies (10,185 versus 14,455). Iowa's population was larger than New Mexico's (2,941,000 versus 2,016,000).

- The four combined states of Kansas, Nebraska, South Dakota, and North Dakota, when compared to Oregon, had more county flood disaster declarations (1,346 versus 124) and three times more in flood claims payments (\$244,828,499 vs. \$76,727,971), but a similar number of policies (30,683 versus 29,780) for a much larger population (6,009,000 versus 3,613,000).

**Example 2: Counties with flood disaster declarations but no communities in NFIP**

We found 66 counties that had flood disaster declarations but no communities that had joined NFIP. Below are selected examples from those counties.

- Clay County, Alabama (population 14,092) has had seven flood declarations.
- San Francisco County, California (population 744,230) has had three flood declarations.
- Henry County, Iowa (population 20,258) has had six flood declarations.
- Winneshiek County, Iowa (population 21,188) has had seven flood declarations.
- Adair County, Kentucky (population 17,575) has had six flood declarations.
- Dallas County, Missouri (population 16,328) has had eight flood declarations.

**Example 3: Counties with flood disaster declarations but very few NFIP policies**

We found 14 counties, all with populations over 100,000, that had one or more flood declarations but very few NFIP policies. Below are selected examples from those counties.

- Potter County, Texas (population 118,000) has had three flood disaster declarations but had only six policies.
- Bibb County, Georgia (population 155,000) has had four flood disaster declarations but had only 13 policies.
- Carroll County, Georgia (population 102,000) has had six flood disaster declarations but had only 83 policies.

# Appendix III: Comments from the Department of Homeland Security

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



**Homeland  
Security**

November 3, 2008

Ms. Orice M. Williams  
Director  
Financial Markets and Community Investment  
U.S. Government Accountability Office  
441 G St., NW  
Washington, DC 20548

Re: GAO-09-20 (250327)

Dear Ms. Williams:

The U.S. Department of Homeland Security (DHS) appreciates the opportunity to review and comment on the U.S. Government Accountability Office's (GAO) Draft Report GAO-09-20, *Options for Addressing the Financial Impact of Subsidized Premium Rates on the National Flood Insurance Program* (250327). Technical comments have been provided under separate cover.

DHS commends the GAO for writing a report that clearly explains the basis for certain properties being charged less than their full risk premiums. GAO has also done a commendable job of describing the demographics of those policyholders as well as investigating the impact of those policies on the financial integrity of the National Flood Insurance Program (NFIP) and providing a discussion of several options to address that impact.

We would like to expound upon several topics cited in this report. First, as GAO mentions in their report, the U.S. Federal Emergency Management Agency (FEMA) has been aware of the impact of subsidized policies on the financial soundness of the Program. In particular, FEMA has been aware of the outsized impact that repetitive loss properties have had. Through the years, FEMA has developed a number of initiatives to address those issues more aggressively. However, we have shared those proposed initiatives with our stakeholders in the past and they have not been welcomed -- primarily due to concerns of equity to existing property owners, their uneven impact on specific communities, and uncertainty on how they would impact low income individuals. The one exception was in the early 1980s when FEMA managed to implement a series of large premium increases to subsidized policyholders. The most recent proposal was presented to stakeholders in 2000-2001 and consisted of a seven-step approach of reducing the number of individuals eligible for subsidized premiums, a series of aggressive premium increases, coverage restrictions and targeted mitigation activity. Although at the time the proposal was not received favorably, with the passage of the Flood Insurance Reform Act of 2004 and the increased awareness of the flood risk as a result of the 2004 and 2005 hurricane seasons, FEMA has been able to proceed with two aspects of that proposal: targeted mitigation activity and more aggressive rate increases. The NFIP will also increase the standard deductible for subsidized policyholders beginning in May, 2009.

Second, as GAO discusses in the report, targeted mitigation activity has resulted in the elimination of some subsidized and repetitive loss properties from the insurance pool. Under current parameters, participation in the FEMA mitigation grant programs is voluntary on the part of the property owner, local government, and State government. Successfully securing a mitigation grant requires capacity and capability within each of these entities. This capacity includes a requirement for some non-Federal financial or in-kind contributions to

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Appendix III: Comments from the  
Department of Homeland Security

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mandatory mitigation activity. FEMA notes that requiring mitigation via the mitigation grant programs would represent a shift in current policies and procedures and require amendments in current statutes and rules.

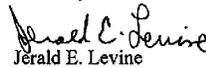
FEMA believes that a mandatory mechanism for certain mitigation activities of pre-Flood Insurance Rate Map (pre-FIRM) properties exists through the administration of the substantial damage provision of a local floodplain management ordinance. To facilitate compliance with the local ordinance, up to \$30,000 is typically available to policy holders undertaking required mitigation activities.

Third, with regard to the GAO discussion of Need-Based Subsidies, FEMA believes that while there is probably merit to such a proposal, the insurance agents that sell flood insurance policies should not be asked to do double duty in making "needs-based" determinations. Such determinations are well outside the scope of their normal activities in flood insurance or any other line of insurance. FEMA recommends that if Congress desires to address the flood risk of low income individuals, they should consider placing the eligibility determination on someone other than the insurance agent. Further, discussion should be held on how such discounted premiums would be borne by the NFIP. Would it simply be revenue foregone by the NFIP (as is the case with current subsidized policyholders) or should it take the form of General Revenue funds being transferred to the NFIP?

Finally, there is a group of NFIP policyholders who currently qualify for heavily discounted premiums as a result of needs-based testing. These are the Group Flood Insurance Policyholders (GFIP) who were recipients of Individual Family Grants (IFG). Since IFG recipients must agree to buy flood insurance for as long as they own or reside at that property, the NFIP introduced the GFIP to assist these individuals in meeting that requirement. These recipients are eligible for IFG because they have suffered a major financial setback. It would be very difficult for them to be able to pay the required flood insurance premium in order to satisfy the IFG requirement. In order to resolve that dilemma, the NFIP has coordinated with the IFG administrators so that a small amount of the IFG grant is transferred to the NFIP and in exchange the NFIP issues a three-year group policy for all recipients following a disaster. We cite the example of the GFIP as one case where we are able to meet the short-term needs of some low income individuals by relying on the needs-based determination made by a third party (the IFG grants personnel).

The U.S. Department of Homeland Security would like to thank you for the opportunity to provide comments on this draft report. We look forward to working with you on future homeland security issues.

Sincerely,



Jerald E. Levine

Director

Departmental DHS GAO/OIG Liaison Office

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# Appendix IV: GAO Contact and Staff Acknowledgements

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## GAO Contact

Orice M. Williams, (202) 512-8678, or [williamso@gao.gov](mailto:williamso@gao.gov)

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## Staff Acknowledgements

In addition to the contact named above, Patrick Ward, Assistant Director; Lawrence Cluff, Assistant Director; Tania Calhoun; Emily Chalmers; William (Rudy) Chatlos; Martha Chow; Nima Patel Edwards; Christopher Fors; Catherine Hurley; Karen Jarzynka; and Melvin Thomas made significant contributions to this report.

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