



AMERICAN INSTITUTES FOR RESEARCH

Evaluation of the National Flood Insurance Program

Annual Report 2002-03

**Contract Number 282-98-0029
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The American Institutes for Research (AIR) and its core subcontractors, the Pacific Institute for Research and Evaluation (PIRE) and Deloitte and Touche LLP, are pleased to submit the second annual report on the evaluation of the National Flood Insurance Program (NFIP). Although much remains to be completed, AIR made significant progress in the past year. Eight studies are in progress, all of which address one or more of the primary evaluation questions. In addition, AIR has continued to work closely with FEMA and other stakeholders to fine-tune scopes of works on studies that address the coordination of federal flood programs and insurance rating and floodplain management. AIR ensures the agency’s complete satisfaction with the scopes of work before we begin their implementation as well as before studies are initiated. AIR, its core subcontractors, and its outside contractors continue to apply a cohesive vision to the effort.

AIR has maximized the resources devoted to the evaluation studies while accommodating the need to address appropriately the required management tasks, including the preparation of requests for proposals and statements of work; issuing requests for proposals; evaluating responses and issuing awards; assessing the need for and obtaining OMB clearance; performing and monitoring work; updating the annotated bibliography and chronology; convening meetings of the national steering committee; preparing reports and briefings and, most important, maintaining overall quality control.

As required by our contract, to date AIR has prepared numerous scopes of work, issued three requests for proposals, awarded five contracts and initiated a total of eight substudies as part of the evaluation. AIR believes that it should have FEMA’s full approval before AIR initiates any study. Not only does AIR thoroughly review draft scopes of work but FEMA also provides detailed comments and feedback to AIR and its partners. Often this has required multiple drafts of scopes of work, including significant changes to the original design, based on comments from FEMA. For example, AIR changed its focus of its study on marketing and risk communication from marketing efforts by FEMA to marketing efforts by Write Your Own program participants or subcontractors. Despite the changes, we believe the time invested in revising and reframing the scopes of work is worthwhile. Our goal is to improve the NFIP’s effectiveness, and we can best contribute to this goal by insuring that our studies address FEMA’s most important needs. Table 1 lists the studies AIR and its subcontractors are currently conducting, eight of which are underway and two are in the design phase. A detailed description of each of the studies follows.

Table 1: Summary of Work Completed 2002-2003

Topic	Status of Work	Work Completion Date
Mandatory-purchase Requirements	Work Initiated	November 2003 (phase one only)
Minimal Building Standards	Work Initiated	December 2003
Mapping Anticipated Development	Work Initiated	December 2003
Market Penetration	Work Initiated	June 2004
Environmental and Developmental Impacts	Work Initiated	September 2004

Evaluating Community Compliance and Compliance of Structures in Special Flood Hazard Areas	Work Initiated ¹	September 2004
Marketing and Risk Communication	Work Initiated	May 2005
Crosscutting Measures for Assessment	Work Initiated	To be determined (phase one) September 2005 (phase two)
Unified National Program; Coordination of Federal Flood-related Programs	Design Phase	To be determined
Insurance Rating and Floodplain Management	Design Phase	To be determined

First, AIR started the study on mandatory-purchase requirements in March 2003. This study will be conducted in two phases. The first phase will provide a comprehensive analysis of the processes that come into play to require the purchase and renewal of flood insurance on structures in Special Flood Hazard Areas (SFHAs) with mortgages: a) from federally regulated lenders; b) that are insured, subsidized, or guaranteed by federal agencies; or, c) that are sold or transferred to a government-sponsored enterprise. The analysis will identify the legal roles and responsibilities of all parties, including banks, regulators, property owners, insurance companies and agents, and others, the procedures used to comply with the legal requirements, areas of overlap and duplication, and any gaps in the law or its implementation that may result in noncompliant loans and structures. The second phase of this study will provide, pending FEMA's approval, an empirical examination of compliance with the mandatory-purchase and retention requirements discussed in phase one, including the purchase, renewal, and retention of flood insurance among homeowners located in areas that are remapped into SFHAs after their mortgages from federally regulated lenders are issued, increased, extended, or renewed. Phase two will also examine the issues of retention/renewal of flood insurance among recipients of federal disaster assistance (including disaster-related grants from FEMA and loans from the Small Business Administration).

For phase one of the study on mandatory-purchase requirements, AIR met with staff from banks, lenders, insurance companies, oversight agencies and others to determine their role and what processes they have adopted to comply with the mandatory-purchase requirement. AIR is currently working on a draft report for phase one, and will submit it to FEMA in late 2003.

Second, Chris Jones and Associates initiated a study on minimal building standards in September 2002. The study is calculating the costs and benefits of modifying NFIP building standards across defined ranges of flood conditions and building configurations, differentiated by flood hazard zone. In particular Jones will define flood conditions and assess the building standards for loads and building configurations for V zones, coastal A zones, and riverine A zones. To date, Jones and Associates has selected several communities to study in the Wilmington, NC area and will assess the damage and improvements made to structures in this area since Hurricane Fran in 1996. The estimated completion date for this study is November 2003.

¹ The scope of work associated with this issue proposes two related studies.

Third, ABS Consulting started its study on the mapping of anticipated development in December 2002. The study is assessing the costs and advantages of reflecting anticipated development in flood insurance rate maps versus maintaining current practices. ABS Consulting is conducting case studies in Pensacola, FL; Grand Forks, ND; Houston, TX; Fort Collins, CO; and Mecklenburg County, NC, and will map future conditions hydrology or identify previously prepared studies for each community. ABS Consulting will estimate damage by varying degrees of flood events by using the HAZUS flood model. The model is an integrated system for identifying and quantifying flood risks based on advanced science and engineering technology. It provides decision support to help communities make informed decisions regarding land use and other issues in flood prone areas. The estimated completion date for this study is December 2003.

Fourth, RAND initiated a study on market penetration in November 2002. The study will attempt to estimate the percentage of properties in SFHAs that have flood insurance and examine the costs and benefits of increased market penetration in the context of the NFIP's programmatic goals. RAND will also analyze the implications of the costs and benefits for optimal market penetration rates and develop a model that predicts the effects of pursuing various policies to increase market penetration on outcomes of interest. RAND randomly selected 100 communities for this study. RAND also initiated a pilot test of two communities by collecting data on census tracts, addresses, policies, and flood determinations. The planned completion date for this study is June 2004.

Fifth, Dr. Tony Rosenbaum of the University of Florida is assessing the NFIP's environmental and developmental impacts. Initiated in May 2003, the study will examine whether the NFIP promotes and protects "natural and beneficial floodplain functions." The study will also examine whether, in accordance with the National Flood Insurance Act of 1968, the NFIP constricts the development of land that is exposed to flood damage, minimizes damage caused by flood losses, and guides the development of proposed future construction, where practicable, away from locations that are threatened by flood hazards. The NFIP's environmental consequences will be an important component of this undertaking. Rosenbaum is currently planning two surveys as part of this study. The first will survey community residents in and outside of SFHAs as well as individuals in each selected community that have and have not purchased flood insurance. The second survey will target developers, financial institutions, local public officials and other relevant informants in the local communities to be studied in order to determine whether those who finance and design development on floodplains consider flood insurance an important factor in planning and underwriting floodplain development. The planned completion for this study is September 2004.

Sixth, a two-part study of community compliance began in August 2002. Study A is evaluating the community compliance process by examining the NFIP's approach to training and technical assistance; the extent to which states and communities implement the NFIP's requirements for floodplain management effectively; and the appropriateness of sanctions available when communities do not perform responsibilities effectively. AIR has accomplished an impressive amount of work on this study. AIR interviewed staff from six of FEMA's regional offices and officials from eight states and 15 local floodplain programs. AIR staff also

observed three community assistance visits and two reviews of a community's compliance with the requirements of the Community Rating System. We have collected information on multiple issues that affect community compliance, including variances, submit for rates, substantial damage and improvement. The anticipated completion date for Study A is September 2004.

Study B, conducted by Dewberry and Davis, began in March 2003. This portion of the compliance study will assess the percentage of post-FIRM structures, both insured and noninsured in SFHAs, that are in compliance with the NFIP's floodplain management regulations, especially those related to construction and elevation relative the base flood elevation. Dewberry and Davis originally proposed 18 clusters of communities, from which a random sample of communities and structures within those communities in 15 clusters will be selected to assess compliance with the NFIP's building standards. Dewberry narrowed its selection of communities by targeting those that have 25 or more insured post-FIRM structures. As a result, Dewberry chose to eliminate a community cluster because of the overall lack of post-FIRM structures. The expected completion date for Study B is September 2004.

Seventh, PIRE began its work on the performance measures and assessment study in March 2003. The study's purpose is to evaluate the performance assessment and evaluation measures used by the NFIP and to recommend improvements, if appropriate. The study will be conducted in two phases, focusing first on current measures, and later on how the measures fit into the overall evaluation. As part of the first phase, PIRE interviewed FEMA staff, representatives from the Congressional Research Service, the General Accounting Office, and the steering committee for the NFIP Evaluation. The interviews thus far have provided valuable information on performance measures. These measures are being logged into a matrix that lists the existing or suggested measure, a detailed description of issues related to the measure, the current availability, cost issues in collecting data if not readily available, and the potential usefulness of the performance measure. The completion date for phase one has yet to be determined.

Finally, AIR will begin a study of the NFIP's marketing and risk communication in October 2003. The study will focus on how Write Your Own (WYO) program participants or their subcontractors market to consumers. AIR will 1) assess the strategies and marketing materials used; 2) examine the marketing terminology used by the NFIP; 3) investigate the marketing and communication strategies of WYO companies; 4) integrate information from the Risk Perceptions in Setting Flood Insurance Rates study (conducted separately from the evaluation) with the evaluation data to provide the effects of marketing and risk communication effects to consumers; and 5) provide in-depth statistical analysis of the data collected. The study will be completed in May 2005.

In addition to the studies just noted, Deloitte and Touché continues to work with AIR and FEMA on its scope of work addressing insurance rating and floodplain management. FEMA requested that Deloitte modify the scope of work to focus on the actuarial soundness of the NFIP, what information is used to rate policies, and how premium rates promote effective floodplain management practices. Deloitte is currently working on a revised scope of work based on these suggestions.

An integral part of the evaluation work will require AIR and its partners to interview private stakeholders, policy owners, and local and state government officials. In order to do so,

we must obtain approval from the Office of Management and Budget (OMB). Our submission of the OMB package has been delayed because of the feasibility of response rates for a large survey proposed by one of the studies. The delay to date in submitting the package has been a major impediment to further progress, and we recognize the need to remedy this situation as soon as possible.

In anticipation of reports issued on the behalf of the NFIP Evaluation, AIR has issued three guidelines on data sources and documentation, reporting, and style. These products will assist our researchers in generating reports that will be consistent in reporting format and content. Consistency will allow individual reports to be easily recognized as part of the evaluation as well as collated into a capping report at the conclusion of the evaluation in September 2005. In addition, we have created a system of documenting data sources that will ensure that evidence used in the reports will be verified internally before a report is sent to FEMA for review.

AIR produced and published a comprehensive chronology and a searchable annotated bibliography of the NFIP in 2002, both of which are posted on FEMA's web site. AIR will complete updated versions of both documents in October 2003.

AIR created a national steering committee with members whose expertise on the NFIP will prove invaluable to the success of the evaluation. Thus far we have conducted two meetings of the committee to assign priority levels to the research questions and to review the research designs. The third meeting is scheduled for November 6-7, 2003 in Washington, DC, and will focus on the findings of the evaluation thus far, as well as revisit topics identified by steering committee members as important to the evaluation.

In addition, we have reached out to external stakeholders by presenting on the NFIP Evaluation at the annual Association for State Floodplain Managers (ASFPM) conference in May 2003. AIR staff also attended the National Flood Conference in San Francisco, CA and the annual meeting of the National Flood Determination Association in Scottsdale, AZ. The project's director also made a presentation at the Hazards Research and Application Workshop in Boulder, CO. AIR is organizing two concurrent sessions for next year's ASFPM conference, and several subcontractors will present their findings.

In sum, AIR and its partners have had a full and productive year. We are well on our way to issuing several reports as part of the evaluation. We are also working to initiate new substudies addressing primary evaluation questions. This effort has required the collaboration and cooperation of multiple stakeholders in order to design as well as implement a successful and effective comprehensive evaluation of the NFIP. We have continued this effort in the same vigor as we begin to implement substudies. In addition, we expect to complete several reports in the coming year, which will be integrated into a cohesive final capping report at the end of the evaluation. AIR and its partners look forward to future collaboration with FEMA, other stakeholders, and future subcontractors.