

Dissertation Proposal Abstract
Department of Public Policy
University of Maryland Baltimore County

An Evaluation of the National Flood Insurance Program

James Patrick Howard, II

Scott Farrow

September 28, 2010

In the proposed dissertation, the author will examine the effects of the National Flood Insurance Program (NFIP). The NFIP was created by Congress in 1968 and provides federal flood insurance to policyholders through private insurance sales (“National Flood Insurance Act of 1968,” 1968). The program is intended to be self-funded but it is significantly in debt due to major flooding throughout the last decade. The NFIP has grown to be the largest monoline insurer in the United States and is nearly \$20 billion in debt to the United States Treasury (Frank, 2010).

The NFIP may influence development in coastal areas by providing insurance and requiring changes to building codes for participation. At the same time, there are outstanding problems with its implementation. Economically, the program provides funds for rebuilding local business and putting local employees to work following a flood disaster, in addition to funds for homeowners’ recovery. However, the NFIP is a potential financial burden to taxpayers because it provides subsidized policies to some program participants. Disparities in how the subsidy for flood insurance is applied, the sources of funds and its effects can lead to reduced equity among program participants. Finally, the political environment for the NFIP gives policy makers a strong incentive to leave the program unchanged, despite looming prospects that the program will produce large and continuing deficits. While academic research on the NFIP is limited, it is expanding in response to recent catastrophes and there are a number of governmentally-funded evaluations. None, however are from the

perspective of economic efficiency and few inform distributional equity.

The data for the proposed dissertation will come from existing sources. Recent research on the NFIP has led to significant data collection and estimation operations that can be used with benefit-cost analysis (BCA). Bingham, Charron, Kirschner, Messick, and Sabade (2006) provides extensive information on the actuarial soundness of the NFIP. Information on the environmental and developmental impacts of the NFIP are available from Rosenbaum and Boulware (2006). Finally, impacts of flooding are quantifiable based on a 2006 study (Sarmiento & Miller, 2006).

The proposed dissertation will examine the NFIP using BCA and distributional impacts analysis. BCA asks the question of whether or not the social benefits of a program outweigh the social costs. This gives policymakers a tool for determining whether a program benefits society in aggregate and a measure of its economic efficiency. However, BCA can be subjective in implementation and the proposed dissertation will use two different methods for analyzing the NFIP. In addition to a pure BCA, the proposed dissertation will include a distributionally-weighted BCA, for understanding how impacts vary among social classes, which can also set the stage for a political analysis. Among the distributional effects likely to be studied are the impacts of the NFIP on certain social classes by income and assets as well as regional effects caused by community adoption of NFIP flood mitigation guidelines. Some of the major challenges likely to be confronted in carrying out a BCA of the NFIP include understanding the willingness to pay for flood protection separate from the transfer element of the insurance program, disaggregating the discount caused by locating in a floodplain in modern housing markets, and any changes in damages due to changed building codes as a result of counties agreeing to be part of the NFIP. There are three principal research questions to be addressed are

1. What are the net social benefits of the NFIP?

2. What are the distributionally-weighted net social benefits of the NFIP?
3. What is the comparison between the two net social benefit calculations?

The outcomes of this research will be a deeper understanding of both the NFIP and governmental insurance programs, generally. This knowledge will enable policymakers to make more informed judgements about how insurance can affect the private market for goods in the United States. In particular, if the hypothesis tests suggest that the NFIP has provided benefits exceeding costs over its lifetime, it is likely to continue doing so provided no substantial changes are made to the programs implementation and objectives. If the hypothesis tests suggest that the NFIP has not provided sufficient benefits to exceed the costs to society, the program is then opened to questions about its efficiency, its efficacy, and its place in society.

In addition to gaining a better understanding of the NFIP, this dissertation may increase understanding of similar insurance-of-last-resort programs administered through governmental programs. Proposed programs, such as a federal wind insurance program attached to the NFIP, and other existing disaster insurance programs, such as the Federal Crop Insurance Corporation, can be better understood and analyzed with knowledge of how distributional effects impact the BCA of an insurance program. Because the NFIP is a public program, understanding its impacts, both positive and negative, is a core public policy question for study. There are political impacts as NFIP policyholders are a broadly diffuse group. The NFIP has economic impacts through its payments to policyholders and the premiums it collects. Finally, the NFIP has social impacts as different social groups are affected differently by the economic and legal impacts of the program.

PRELIMINARY BIBLIOGRAPHY

- Bingham, K., Charron, M., Kirschner, G., Messick, R., & Sabade, S. (2006, October). *The role of actuarial soundness in the national flood insurance program*. Washington.
- Frank, T. (2010, August 25). Huge losses put federal flood insurance plan in the red. *USA Today*, pp. A1.
- National flood insurance act of 1968 [Public law 90–448]. *U. S. Statutes at Large*, 82, 572–589. (codified at U. S. Code 42 (2010), §4001)
- Rosenbaum, W. A., & Boulware, G. (2006, October). *The developmental and environmental impact of the national flood insurance program: a summary research report*. Washington.
- Sarmiento, C., & Miller, T. R. (2006, October). *Costs and consequences of flooding and the impact of the national flood insurance program*. Washington.