

## 6. Elite Appraisals of the NFIP

TABLE 6.10

Comparison of State and Local Elite Mean Opinions of the National Flood Insurance Program by State

State	State Elite Mean	Local Elite Mean	Difference <sup>a</sup>
AL	1.63 (N = 16)	1.62 (N = 71)	+.01
CA	1.57 (N = 21)	1.88 (N = 173)	-.31
CO	1.65 (N = 23)	1.68 (N = 104)	-.03
CT	1.48 (N = 21)	1.48 (N = 64)	.00
DL	2.00 (N = 22)	1.56 (N = 18)	+.44*
FL	1.64 (N = 22)	1.74 (N = 194)	-.10
IL	1.60 (N = 20)	1.93 (N = 70)	-.33
LA	1.58 (N = 19)	1.50 (N = 96)	+.08
MA	1.36 (N = 22)	1.58 (N = 78)	-.22
MO	1.82 (N = 22)	2.05 (N = 116)	-.23
NH	1.35 (N = 20)	1.73 (N = 40)	-.38*
NJ	1.44 (N = 23)	1.26 (N = 54)	+.18
NY	1.05 (N = 21)	1.45 (N = 75)	-.40**
NC	1.36 (N = 22)	1.68 (N = 60)	-.32*
OK	2.00 (N = 21)	1.59 (N = 41)	+.41*
PA	1.13 (N = 24)	1.35 (N = 133)	-.22
SC	1.75 (N = 24)	1.64 (N = 72)	+.11
TX	1.80 (N = 25)	1.80 (N = 183)	.00
UT	2.04 (N = 24)	1.81 (N = 32)	+.23
VA	1.54 (N = 24)	1.55 (N = 56)	-.01

<sup>a</sup>State elite mean opinion minus the local elite mean opinion.

\*\*Statistically significant at Alpha = .10.

different circumstances, perhaps surrounding the specific experiences of local communities with the NFIP program and its provisions.

## THE REACTIONS OF LOCAL ELITES

The targets of the NFIP are local communities. At a very general level, most local elites in our 100 communities either "strongly favor" (49.1%) or "somewhat favor" (38.6%) NFIP. Only 7.9% were "somewhat opposed," and 4.4% were "strongly opposed." Therefore, as among state elites, local elites are generally quite favorable toward the NFIP.

## The Reactions of Local Elites

### Awareness of the NFIP

How knowledgeable are local elites about NFIP? In order to deal with this issue, the local elites were asked if they had heard of the NFIP, if their community had been notified by the Federal Insurance Administration that it was eligible to participate, and if their community was currently participating in the program. Table 6.11 presents our findings. Only 10.9% had not heard anything about the NFIP; knowledgeability varies according to pro-

TABLE 6.11

Local Elite Awareness of NFIP by Community Status in NFIP Program

1. "Have you heard anything about the Federal Government's Flood Insurance Program?"			
<u>Community Status</u>	<u>Yes</u>	<u>No or Don't Know</u>	<u>N</u>
Those living in communities not yet in the NFIP	75%	25%	( 251)
Those living in communities in the emergency phase	90%	10%	(1174)
Those living in communities in the regular phase	95%	5%	( 406)
<u>Total</u>	89%	11%	(1831)

  

2. "As far as you know, has (LPJ) been notified by the Federal Insurance Administration that it has a flood hazard problem and is eligible to participate in the Flood Insurance Program?"					
<u>Community Status</u>	<u>Yes</u>	<u>No</u>	<u>Don't Know</u>	<u>Not Applicable<sup>a</sup></u>	<u>N</u>
Those living in communities in the emergency phase	69.3%	8.1%	12.6%	10%	(1174)
Those living in communities in the regular phase	80.8%	2.0%	12.3%	4.9%	( 406)
<u>Total</u>	72.3%	6.5%	12.5%	8.7%	(1580)

  

3. "Is your community now participating in the program, or not?"					
<u>Community Status</u>	<u>Yes</u>	<u>No</u>	<u>Don't Know</u>	<u>Not Applicable<sup>b</sup></u>	<u>N</u>
Those living in communities in the emergency phase	53.6%	5.5%	10.2%	30.7%	(1174)
Those living in communities in the regular phase	72.4%	.7%	7.7%	19.2%	( 406)
<u>Total</u>	58.4%	4.3%	9.6%	27.7%	(1580)

<sup>a</sup>Those who had not heard of the program

<sup>b</sup>Those who had not heard of the program and those who did not know that their community had been notified

gram phases. Some 95% of those living in communities in the regular phase, and 90% of those living in communities in the emergency phase, had heard of the program; among those from communities not yet in the program, only 75% had heard of the NFIP. Regardless of phase, awareness of the NFIP among local elites is relatively high.

Respondents are less knowledgeable about whether or not the community has been notified by the Federal Insurance Administration that it is flood prone and eligible to participate in the NFIP. Of those living in participating communities, 72.3% knew that their community had been notified; the percentage is higher among elites from local political jurisdictions in the regular phase, lower among elites from communities in the emergency phase (80.8% versus 69.3%).

More than 58% of the elites from participating communities were aware of that participation; again, more elites from regular phase communities are aware of this than are those from communities in the emergency phase (72.4% versus 53.6%). Overall, then, awareness of the NFIP in general, and of the NFIP status of one's community in particular, increases as a community moves through the various program implementation stages. The remainder of our data deal only with respondents from the 82 participating communities; our measure of awareness is whether respondents know that their communities are participants.

In some states, local elites from participating communities exhibit very low levels of awareness (Table 6.12). In five states, the majority of local elites in all participating communities are not aware that their communities are participating; these communities are in Massachusetts, California, South Carolina, Connecticut, and Illinois. In some other states, 75% or more of the local elites are aware of their communities' NFIP participation.

Levels of awareness also vary sharply across the participating communities. In two communities, for example, all elites knew that their communities were participating; yet, in one community that had been in the program since 1974, only 1 of 19 respondents was aware of the community's status. What accounts for this widespread variation? Table 6.13 shows how community awareness correlates with other selected variables. Community awareness is determined by the percentage of respondents in a community who knew that their community was participating. We find that the higher the total general revenue of a community, the larger the 1970 population, and the higher the percentage unemployed, the lower the level of awareness. We also find that the higher the percentage of a community's labor force is employed in construction, the higher the percentage of houses that are owner-occupied, and the greater the population growth of the community from 1960 to 1970, the higher the level of awareness.

Most of the disaster variables are significantly correlated with community

TABLE 6.12

Awareness of Community Status by State Among Local Elites Living in Participating Communities

State	FIA Region	N	% Aware	% Unaware
Alabama	IV	53	64.2	35.8
California	IX	148	34.5	65.5
Colorado	VIII	82	73.2	26.8
Connecticut	I	65	47.7	52.3
Delaware	III	18	77.8	22.8
Florida	IV	193	57.0	43.0
Illinois	V	64	48.4	51.6
Louisiana	VI	98	74.5	25.5
Massachusetts	I	82	25.6	74.4
Missouri	VII	46	63.0	37.0
New Hampshire	I	42	76.2	23.8
New Jersey	II	58	65.5	34.5
New York	II	78	60.3	39.7
North Carolina	IV	37	64.9	35.1
Oklahoma	VI	42	88.1	11.9
Pennsylvania	II	138	75.4	24.6
South Carolina	IV	63	47.6	52.4
Texas	VI	177	55.9	44.1
Utah	VIII	35	54.3	45.7
Virginia	III	61	62.3	37.7

awareness, especially those variables dealing with floods. The more serious flooding or hurricanes are seen to be, the higher the probability of a return flood, and the more consensus there is among community elites that the community experienced a serious flood or hurricane within the last 10 years, then the higher the level of community awareness. Only two of the disaster philosophy items correlate significantly with awareness, both rather weakly. Awareness is highest in communities with high levels of support for the compulsory insurance approach and with low levels of support for the post-disaster relief approach.

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TABLE 6.13

## Correlations of Overall Community Awareness With Selected Community Variables

Structural Variables	r	p	N
1970 Population	-.29	.005	82
Growth (1960-1970)	.20	.037	80
Median Income	.02	NS	77
% Houses Owner-occupied	.29	.005	77
% Unemployed	-.27	.008	77
% in Construction	.22	.028	77
Total General Revenue	-.32	.003	73
Median Years of Education	.04	NS	77
<b>Disaster Variables</b>			
Seriousness of Flooding	.60	.000	82
Seriousness of Hurricanes	.32	.002	82
Probability of Flood	.63	.000	82
Probability of Hurricane	.15	NS	82
Community Flood Experience	.49	.000	82
Community Hurricane Experience	.31	.002	82
<b>Opinion of NFIP</b>			
	-.25	.013	82

Awareness is positively and significantly correlated with support for the program: The more favorable the community is toward NFIP, the more aware the community is of its status. Variation in awareness is also related to position (Table 6.14). The Taxpayers Association, police and fire chiefs, building trades councils, television station managers, and the League of Women Voters are least aware of their communities' status in NFIP; planners predictably the most aware, by a substantial margin. Other groups with relatively high levels of awareness include city managers, zoning officials, public works officials, Civil Defense members, Regional Alliance of Local Government (RALG), flood control officials, and Farmer's Home Administration officials. Finally, awareness varies with disaster experience (Table 6.15). Individuals who said that their community had experienced a serious flood or hurricane are most aware of their community's status. Similarly, most individuals who had personally experienced a flood or hurricane are also more aware of their community's participation.

## Local Outlook: General Opinions of NFIP

Attitudes toward NFIP vary across the 100 communities in the sample. The average favorability of the least favorable community among our sample

## The Reactions of Local Elites

TABLE 6.14

Proportion Aware of Community's Status in the Flood Insurance Program by Position<sup>a</sup> (Local Elites)

Position	Regular <sup>b</sup>	N	Emergency <sup>b</sup>	N	Total <sup>b</sup>	N
Mayor-Exec.	79%	(14)	59%	(54)	63%	(68)
Managers	82%	(11)	81%	(32)	81%	(43)
Legislators	76%	(70)	53%	(227)	58%	(295)
Planning Off.	--	(20)	87%	(56)	91%	(74)
Zoning Off.	92%	(12)	65%	(34)	72%	(46)
Police-Fire	34%	(38)	20%	(108)	24%	(146)
Public Works Off.	76%	(17)	77%	(44)	76%	(61)
Civil Defense	65%	(23)	73%	(56)	71%	(76)
Chamber of Comm.	84%	(19)	30%	(54)	44%	(73)
Red Cross	90%	(20)	51%	(57)	61%	(77)
Taxpayers	--	(3)	25%	(20)	22%	(23)
League of Women Voters	44%	(18)	33%	(43)	36%	(61)
Bldg. Trades Council	50%	(16)	14%	(39)	25%	(53)
Bankers	76%	(17)	59%	(56)	63%	(73)
Real Estate	80%	(20)	58%	(52)	64%	(72)
Newspaper Editors	58%	(19)	53%	(59)	54%	(78)
Homebuilders	62%	(16)	52%	(40)	55%	(56)
TV Managers	69%	(13)	23%	(35)	35%	(48)
Reg. All. Loc. Govt.	--	(14)	72%	(36)	80%	(50)
Flood Control	73%	(11)	81%	(27)	79%	(38)
Farmer's Home Admin.	89%	(18)	67%	(49)	73%	(67)
TOTAL	72%	(406)	54%	(1174)	58%	(1580)

<sup>a</sup> Respondents living in communities which are in either the regular or emergency phase of the program who have either not heard of the program, do not know that their community has been notified by FIA or do not know that their community is participating in the program.

<sup>b</sup> The columns present the percentage of the respondents in a given position who are aware of their community's status in the program and the total N representing the total number of respondents in a given position, of the respondents in communities in the regular, and emergency phases and for the two, combined (in the column labelled, Total).

was 1.05 on our scale of 1-4; the highest was 3.00. This is a wider spread than among the states.

Sixty-two of the communities in our sample are in the emergency phase of the flood insurance program. An additional 20 are in the regular phase. Another 14 have been identified as flood prone. The remaining 4 have had their flood-hazard areas identified by the Federal Insurance Administration. Ten of the 20 communities in the regular phase are among the top 25 most

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## The Reactions of Local Elites

TABLE 6.15

### Disaster Experience and Awareness

"Thinking back over the last ten years, has (LPJ) experienced a flood that you would consider to be a serious event?"

	Yes	No
% Aware	74.4	49.8
% Unaware	25.6	50.2
100% = (566)	(1000)	

"Thinking back over the last ten years, has (LPJ) experienced a hurricane that you would consider to be a serious event?"

	Yes	No
% Aware	75.7	55.1
% Unaware	24.3	44.9
100% = (255)	(1315)	

"Have you ever personally experienced a flood, either here or elsewhere?"

	Yes	No
% Aware	62.0	53.2
% Unaware	38.0	46.8
100% = (928)	(652)	

"Have you ever personally experienced a hurricane, either here or elsewhere?"

	Yes	No
% Aware	59.4	56.6
% Unaware	40.6	43.4
100% = (1000)	(580)	

favorable communities; 10 of the 14 communities that are not in the program but have been identified as flood prone are among the 25 least favorable. Table 6.16 shows the correlations between aggregate community favorability to NFIP and selected other community characteristics.

Across the 100 communities, we find that the more serious the community rates flooding, the more they favor the flood insurance program; likewise, the more serious a problem hurricanes are, the more the community tends to favor the NFIP. Similar effects are also shown for the estimated return probabilities for floods and hurricanes, and for both personal and community disaster experiences.

Three of the five disaster philosophy measures are significantly correlated with attitude toward the NFIP at the local aggregate level. The communities most favorable to the NFIP tend to oppose the free-market and postdisaster

TABLE 6.16

### Correlations of Community Average Opinions of the Flood Insurance Program with Other Selected Community Characteristics (N = 100)

Independent Variables	r
Flood Seriousness	-.26**
Hurricane Seriousness	-.36**
Return Probability-Flood	-.21**
Return Probability - Hurricane	-.27**
Flood Experience - LPJ	-.16*
Hurricane Experience - LPJ	-.28**
Flood Experience - Personal	-.27**
Hurricane Experience - Personal	-.44**
Free-Market	-.45**
Structural Works	-.07**
Land Use Controls	.31
Insurance	.07
Relief-Rehabilitation	-.46**
Republican	-.05
Economic Liberalism	-.24**
Social Liberalism	-.40**
Pro-Government Regulations	-.45**
Seriousness of "Too Little Growth"	-.24**
Population 1970	-.12
Area	.27**
Age 1970	.22**
Education - 1970 <sup>a</sup>	-.20**
Manufacturing - 1970 <sup>a</sup>	-.31**
Income - 1970 <sup>a</sup>	-.33**
% Owner Occupied 1970 <sup>a</sup>	.43**
% White Collar <sup>a</sup>	-.27**
% Built After 1960 <sup>a</sup>	.15
Median Value - 1970 <sup>a</sup>	-.32**
% Rural	.41**
Construction - 1970	.13
SBA Flood Home Loans - Dollar Damage 1960-1970	.08
SBA Flood Business Loans - Dollar Damage 1960-1970	-.12
SBA Hurricane - Home Loans Dollar Damage 1960-1970	-.16*
SBA Hurricane Business Loans Dollar Damage 1960-1970	-.17**

Independent Variables	r
Number of Flash Floods 1945-1971	-.19**
Number of Flood Events 1945-1975	-.20**
Annual Damage from Hurricanes in Thousands	-.10
Mortality Rate Per 10 Million Population from Hurricanes	-.11

<sup>a</sup>N = 95 for these variables which are not given in the census for certain political units.

\*\* Statistically significant at Alpha = .05

\* Statistically significant at Alpha = .10

relief approaches and favor the land-use approach. Interestingly, favorability toward compulsory hazards insurance does not predict favorability toward the NFIP across these 100 communities. All measures of community liberalism are significantly correlated with aggregate attitudes toward the NFIP. The more liberal a community is on economic issues, social issues, and government regulations, the more it tends to favor the program.

Some of the census variables characterizing the communities in our sample are also significantly correlated with aggregate attitudes toward the NFIP. The less favorable communities tend to be rural, have a high percentage of owner-occupied homes, and are disproportionately lower on all measures of aggregate socioeconomic status. Finally, communities with the most extensive prior disaster experiences also tend to be more favorable toward the NFIP. This pattern obtains across seven of the eight indicators, although all effects are moderate to weak.

### Personal Variation in Opinions of the NFIP

Attitudes toward the NFIP vary by elite job position as well as by community. In the predictable manner, Red Cross officials, planning and zoning officials, mayors and city managers, the Regional Alliance of Local Governments, and fire chiefs all are significantly more favorable toward the NFIP than the average. The Chamber of Commerce, real estate representatives, the Homebuilders Association, and the Taxpayers Association are significantly less favorable.

Table 6.17 shows the regression of local elites' attitudes toward the NFIP on selected characteristics of elites. Overall, the model explains 16% of the variance in opinions. Three disaster philosophy items are significant. The more respondents oppose the free-market approach to disaster mitigation,

TABLE 6.17 (Continued)

Pro-Government Regulation	-.110**	.030
Seriousness of "Too Little Growth"	-.002	.007
3. <u>Personal Characteristics</u>		
College-Educated	-.046	.046
Years Residing in LPJ	-.003**	.001
4. <u>Respondent's Disaster Experience</u>		
Hurricanes	-.030	.044
Floods	-.012	.041
5. <u>Respondent's Rating of Seriousness</u>		
Hurricanes	.008	.013
Floods	-.022**	.010
6. <u>Community Disaster Experience</u>		
Hurricanes	-.142**	.069
Floods	-.024	.051
7. <u>Community NFIP Status</u>		
Regular Program	-.058	.050
Not Participating	.250**	.062
8. <u>Community Characteristics</u>		
Population 1970	.92710 <sup>a</sup>	.37110 <sup>-7</sup>
Growth (1960-1970)	-.001	.001
% Houses Owner-Occupied	.003**	.002
9. <u>Position Dummies<sup>c</sup></u>		
Executives	.018	.099
Legislators	.110	.082
Business	.141	.090
Development	.182**	.091
Media	.102	.095
Hazard Specialists	-.094	.080
Supralocals	.076	.079
Appointed	.093	.087
Constant = 2.05	$r^2 = .16^{**}$	
	N = 1490	

<sup>a</sup>Unstandardized regression coefficients.

<sup>b</sup>For the exact wordings of these items, see pp. 4-6 to 4-7.

<sup>c</sup>Position Groups:

Executives = mayors, city managers

Legislators = local legislators

Business = Chamber of Commerce, taxpayers, bankers

Development = Building trades, realtors, homebuilders

Media = newspaper editors, television managers

Hazard Specialists = Civil Defense, Red Cross, Flood Control

Supralocals = League of Women Voters, Regional Alliance, Farmers' Home Administration

Appointed = police and fire and public works officials

Planners and Zoners = planning and zoning officials (the omitted category).

\*Indicates statistical significance Alpha = .05

\*\*Indicates statistical significance Alpha = .10

TABLE 6.17

Regression of Local Elites Opinions of the NFIP on Selected Characteristics of Local Elites  
(N = 1490)

Independent Variables	b <sup>a</sup>	se
1. <u>Disaster Philosophies<sup>b</sup></u>		
Free-Market Position	-.140**	.021
Structural Works	-.013	.021
Non-Structural Mitigation	.038*	.019
Hazard Insurance	.067**	.020
2. <u>Respondent's Political Ideology</u>	-.017	.020
Republican	-.011	.044
Economic Liberalism	-.003	.034
Social Liberalism	-.061**	.027

(Continued)

the more favorable their opinions of the NFIP. Likewise, the more respondents oppose nonstructural mitigation or hazards insurance, the less favorable their opinion of the NFIP.

Two items involving the respondent's political ideology are also significant. The more liberal respondents are with regard to social issues or government regulation, the more favorable they are toward the flood insurance program. Also, the longer residents have resided in the community, the more favorable they are to the NFIP. Only one disaster experience item was significant: Respondents who state that their community experienced a serious hurricane have more favorable opinions toward the NFIP than do other respondents. Also, the more seriousness respondents attribute to flooding, the more favorable they are toward the NFIP.

Respondents from communities that are not yet participating in the NFIP have less favorable opinions than those from emergency phase communities. We also find that the larger the community and the greater the percentage of houses that are owner-occupied, the less favorable the respondent. Finally, as in the previous analyses, respondents representing real estate and development interests are less enthusiastic about the NFIP than are other respondents. In short, the correlates of favorability to the NFIP among local elites are very similar to those shown previously for state elites.

### Justification of Community Participation

Regardless of their opinions of the NFIP and its objectives, all respondents who had heard of the flood insurance program were asked, "In your opinion, does [Local political jurisdiction] have a serious enough problem—at least in some areas—to justify participating in the Flood Insurance Program? Seventy-eight percent said that their community *did* have a serious enough problem; these respondents were, of course, more favorable to the NFIP. The tendency to believe that the problem was serious enough to justify participation also varied across elite job positions: Planners, zoners, and hazards specialists are most likely to say yes; respondents in the media, business, or in real estate and development groups are most likely to say no (Table 6.18). Also of some interest, respondents from regular phase communities were more likely to feel that community participation was justified (91%) than were respondents in emergency phase communities (76%)

### THE PROBLEMS, CONTROVERSIES, AND FUTURE OF THE NFIP

Since its inception, the NFIP has received a fair amount of publicity, a lot of it bad and most of it focusing on one or more of several implementation

TABLE 6.18

Justification of Community Participation in the National Flood Insurance Program by Local Elite Position

GROUPS <sup>a</sup>	"In your opinion, does (LPJ) have a serious enough problem - at least in some areas - to justify participating in the Flood Insurance Program?"	
	% Yes	N
EXEC	79.5	117
LEGIS	74.4	289
PLZON	88.5	122
APPOINT	78.0	191
BUS	70.3	182
DEV	69.0	174
MEDIA	66.9	130
HAZARD	83.4	211
SUPRALOC	84.3	191

<sup>a</sup>See Table 6-17, Note c.

problems. Floodplain mapping has been especially vexing. For example, in a letter to HUD, one insurance company complained about the "inordinate amount of difficulties in obtaining maps of the Southern California area for distribution" and about the fact that "page 3 of the map for Imperial Beach (California) was not of Imperial Beach, but had printed on it portions of the city of Milwaukee, Oregon." The complaints with mapping are by no means confined to those involved in implementing the program. In another letter to HUD, a resident of Florissant, Missouri stated, "I live in a house which is located on a hill not near a major river for at least five to ten miles. . . I believed someone just glanced at a map and said the whole area needs flood insurance." Others complain about the consequences of having their property designated as flood prone. A resident of Elmhurst, Illinois wrote to HUD about his frustration with the NFIP: "I cannot believe that a governmental agency would go into a program like this without some study or consideration of the effects of what they are doing. They are hurting innocent people through diminishing the valuation of their homes, and affecting the future marketability of these homes" (All material here is from FIA files.)

How widespread are these and related problems? Respondents who said that their communities were participating in the program were shown a list of 11 possible problems and asked which, if any, had been a problem in

their communities, and if so, how serious the problem(s) had been. The results are shown in Table 6.19. The problem most frequently cited was that eligible homeowners were not interested in buying the insurance. Problems with the maps were also frequently mentioned; they were either not detailed enough or had too many errors and inaccuracies. The least frequently mentioned problem was that ongoing development projects had to be abandoned before completion. There is a predictable relationship between mentioning a problem and overall favoring the program: Mentioning a problem and low favorability toward the NFIP were positively and significantly correlated for 7 of the 11 problems. All 11 of the problems questions are posi-

tively intercorrelated among themselves, with coefficients ranging from  $r = .04$  to  $r = .52$ , averaging  $r = +.17$ .

The average respondent in this sequence mentioned 3.76 problems (Table 6.20). The average number of problems mentioned varies, rather predictably, by job position. Developers see the greatest number of problems, with an average 5.58 problems mentioned, local chief executives see the fewest (2.71 average). Of some possible interest, the average number of problems mentioned was about the same in regular phase and emergency phase communities (3.85 and 3.69 averages, respectively).

The hostility of real estate and development interests to the NFIP also comes through on an item-by-item analysis we performed. Indeed, for each of the 11 problems, the percentage of respondents in those fields mentioning it is above the overall average. For 9 of the 11, the developers show the highest percentage of mentions of all elite groups. Respondents in real estate and development were more likely to mention problems of administrative burden than were the planners who actually administer the program, and they were more likely to mention problems with appeals and variances than were the zoning officials who actually deal with appeals and variances.

Two of the 11 problems are more frequently mentioned in regular phase than in emergency phase communities; these are the problems of "too many

TABLE 6.19

Mean Opinion of the Flood Insurance Program by Problems With the Program<sup>a</sup>

PROBLEM <sup>b</sup>	% "Yes"	Average Opinion of NFIP Among Those Who Replied			
		"Yes"	N	"No"	N
Property values fell	31	1.59	(269)	1.55	(588)
Development abandoned	12	1.74*	(104)	1.54*	(785)
FHBM had too many errors	45	1.76*	(366)	1.45*	(441)
FHBM not detailed enough	43	1.65*	(349)	1.53*	(457)
Eligible homeowners not interested	56	1.59	(424)	1.57	(336)
Program is a burden to administer	22	1.86*	(188)	1.48	(667)
Program does not offer enough coverage	24	1.47	(154)	1.59	(492)
Insurance companies don't understand the program	22	1.72*	(149)	1.54*	(523)
Homeowners complain about the program	27	1.76*	(229)	1.48*	(626)
There are too many appeals and variances	33	1.58	(256)	1.56	(521)
Insurance costs are excessive	28	1.80*	(224)	1.46*	(568)

<sup>a</sup>Each of these problems was in a series of questions which preceded the following remark: "Earlier you mentioned that (LPJ) is participating in the Flood Insurance Program. Some communities have had good experiences with the Flood Insurance Program, and others have had some problems. I am going to read you a list of some of the problems communities have had with the program. As I read each problem, please tell me whether or not this community has ever had that problem with the Flood Insurance Program ..."

<sup>b</sup>For the exact wording of these questions, see the interview schedule, questions L301 to L3011, in Appendix A.

\*Statistically significant at  $p \leq .05$ .

TABLE 6.20

Average Number of Problems with the Flood Insurance Program by Local Elite Groups

Groups <sup>a</sup>	Average No. of Problems with NFIP	N
EXEC	2.71	80
LEGISL	3.38	177
PLZON	3.98	105
APPOINT	3.36	91
BUS	3.96	93
DEV	5.58	100
MEDIA	3.25	65
HAZARD	3.51	143
SUPRALOC	4.02	130
TOTAL	3.76	984

<sup>a</sup>See Table 6-19, Note c.

appeals and variances" and "ongoing development projects had to be abandoned." In contrast, the problem of insurance companies not understanding the program was more often mentioned in emergency phase than in regular phase communities. There were no significant differences by participation status for the remaining 8 problems.

Respondents were also asked how serious these problems had been (1 = very serious, 2 = somewhat serious, 3 = not serious at all). On average, most problems were viewed as being "somewhat serious" (Table 6.21). The most serious problem was that of flood-hazard maps not being detailed enough (1.79 average), closely followed by other mapping problems (1.80 average); the least serious problem was that of homeowners complaining about the program (2.06 average). The average seriousness attributed to each problem did not vary significantly by elite position. Also, these problems were usually seen as rather more serious by respondents in regular phase communities than by those in emergency phase communities.

Aggregating the problem data over the 100 communities shows that the intercorrelations among problems are substantially higher in the aggregated data than in the individual data; that is, a community that has any one of these problems is also likely to have all the others, not a favorable finding so

TABLE 6.21

The Mean Seriousness Ratings of Various Problems with The Flood Insurance Program

Problem	Seriousness Rating <sup>a</sup>		
	$\bar{X}$	sd	N
Property values fell	1.92	.523	266
Development abandoned	1.98	.557	104
Flood Hazard Maps had too many errors	1.80	.676	364
Flood Hazard Maps not detailed enough	1.79	.619	348
Eligible homeowners not interested	1.99	.603	414
Program is a burden to administer	1.94	.539	188
Program does not offer enough coverage	1.92	.571	154
Insurance companies don't understand the program	1.95	.540	147
Homeowners complain about the program	2.06	.609	228
There are too many appeals and variances	1.98	.627	255
Insurance costs are excessive	1.94	.631	220

<sup>a</sup>Seriousness rating ranged from 1 = very serious to 3 = not at all serious

far as the future of the NFIP is concerned. Also of some interest, levels of awareness of the community's status within the program are highest in communities reporting the most problems. Thus, a high level of awareness is not necessarily a good sign for the NFIP. Also, aggregate favorability toward the NFIP tends to decrease as the number of problems mentioned increases; as one would expect.

### The "Fairness" of the NFIP

Local elites who said that their community was participating in the program were asked how fair they felt the NFIP was to various groups: to homeowners who live on floodplains or seacoasts; to persons who own undeveloped land on floodplains or seacoasts; to business and industries located in floodplain areas; and to local officials who have to administer the plan. Fairness was measured on a 4-point scale (1 = very fair, 4 = very unfair). The respondents felt that the program was most fair to the homeowners ( $\bar{X} = 1.67$ ); followed by business and industry ( $\bar{X} = 1.84$ ) and local officials ( $\bar{X} = 1.87$ ); the program was felt to be least fair to landowners ( $\bar{X} = 1.96$ ).

Table 6.22 shows the mean fairness ratings, by job position. Real estate and development respondents have the highest scores in all four categories. They see the NFIP as unfair to everybody, but particularly to persons owning undeveloped land in flood-hazard areas. In contrast, supralocal elites tend to attribute more fairness to the NFIP than other elite groups do. Of some additional interest, the attributed fairness of the NFIP was the same in both emergency phase and regular phase communities, on all four indicators. Also, as one would expect, respondents who judge the NFIP as fair have more favorable attitudes toward it than others.

### Controversy over the NFIP

Given the number and kinds of problems with the NFIP mentioned by our respondents, it would follow that the program might be (or have been) a source of controversy in many communities. We asked all respondents who stated that their community was participating, "Would you say that the program, during its most controversial period, sparked much controversy, some controversy, or no controversy at all?" Overall, approximately 50% of the respondents stated that the program had sparked at least some controversy; 40.6% stated that the program sparked "no controversy at all", and 9.1% stated that the NFIP had sparked "much controversy."



TABLE 6.22

## The "Fairness" of the National Flood Insurance Program By Local Elite Position

Groups <sup>a</sup>	Fairness to			
	Homeowners <sup>b</sup>	Landowners <sup>c</sup>	Bus. & Ind. <sup>d</sup>	Local Officials <sup>e</sup>
EXEC	1.60 (73)	1.93 (71)	1.79 (67)	1.70 (74)
LEGIS	1.66 (151)	1.92 (132)	1.89 (145)	1.89 (145)
PLZON	1.74 (98)	1.87 (96)	1.78 (96)	1.84 (100)
APPOINT	1.80 (73)	1.88 (72)	1.92 (72)	1.88 (69)
BUS	1.64 (85)	2.01 (76)	1.94 (82)	1.92 (75)
DEV	1.87 (93)	2.55 (86)	2.17 (87)	2.10 (80)
MEDIA	1.67 (52)	1.96 (44)	1.82 (49)	1.86 (44)
HAZARD	1.60 (128)	1.90 (118)	1.71 (116)	1.79 (116)
SUPRALOC	1.56 (117)	1.71 (112)	1.60 (111)	1.83 (113)

NOTE. The scale was 1 = very fair to 4 = very unfair

<sup>a</sup>The groups are as follows:

EXEC - mayors, city managers  
 LEGIS - local legislators  
 PLZON - planning and zoning officials  
 APPOINT - police, fire and public works officials  
 BUS - Chamber of Commerce, taxpayers, bankers  
 DEV - Building trades, realtors, homebuilders  
 MEDIA - newspaper editors, television managers  
 HAZARD - Civil Defense, Red Cross, Flood Control  
 SUPRALOC - League of Women Voters, Regional Alliance, Farmers' Home.

<sup>b</sup>The question was worded, "In your opinion, does the Flood Insurance Program appear to be very fair, somewhat fair, somewhat unfair, or very unfair to each of the following groups, Homeowners who live on flood plains or seacoasts,

<sup>c</sup>Persons who own underdeveloped land on flood plains or seacoasts,

<sup>d</sup>Businesses and industries that have buildings in the flood-prone areas,

<sup>e</sup>Local officials who have to administer the plan.

An examination of controversy ratings by elite groups shows us that most elite groupings are within .05 points of the overall mean (Table 6.23). Predictably, realtors and developers see the NFIP as more controversial than other elite groups ( $\bar{X} = 2.09$ ). Therefore, the group that found the most problems with the program also tends to view the program as the most controversial.

Respondents who said that the program had sparked "much" or "some" controversy were asked which, if any, of a list of potential opponents of the program had, in fact, been opposed to the NFIP in their community (Table 6.24). Developers were by far the most often cited group of opponents (mentioned by 59%). They were followed by homeowners (34%), city offi-

TABLE 6.23

## Mean Controversy Scores by Elite Group (Only Local Elites Who Stated that Their Community was Participating)

	Was [GROUP] opposed to NFIP?			
	Yes	No	DK	N
Real Estate	29.3	54.4	16.3	563
Local Industry	18.3	66.0	15.7	562
Retail Businesses	12.4	71.6	16.0	563
Insurance Agents	14.4	67.5	18.1	563
Land Developers	59.4	37.8	9.8	563
Homeowners	33.9	56.7	9.4	564
Farmers	12.8	68.4	18.8	538
Construction Firms	25.7	59.0	15.3	561
City Officials	30.5	61.7	7.8	561
Conservationists	8.2	77.4	14.4	563
Construction Unions	11.7	66.1	22.2	555
Newspapers	11.0	74.8	14.2	563
Chamber of Commerce	13.7	72.7	14.6	560
Banks	13.9	71.2	14.9	563

cials (30%), the local real estate firms (29%), and construction firms (26%). The least-cited group of opponents were local conservationist groups (mentioned as opponents by 8%).

We performed a detailed analysis of responses to the "who opposed NFIP?" sequence by elite job position that showed, interestingly, that realtors and developers were consistently more likely than other respondents to report that any given group had been opposed to the NFIP. This obtained for 12 of the 14 groups asked about in the sequence. In short, realtors and developers tend to see a lot of support for their position on the NFIP among the various segments of the community—more support than is seen for their position by any of the other elite groups. Local appointed officials cited the fewest groups. Over the total sample, the average number of groups cited as opposing NFIP was 1.64 groups (respondents were asked about 14 groups). This low average shows that most of our respondents do not see a lot of opposition to the NFIP among these community groups. The average

## 6. Elite Appraisals of the NFIP

TABLE 6.24

### Perceived Opposition of Groups to NFIP

GROUPS <sup>a</sup>	Controversy Rating <sup>b</sup>	N
EXEC	2.36	80
LEGISL	2.37	173
PLZON	2.31	102
APPOINT	2.29	87
BUS.	2.35	91
DEV.	2.09	97
MEDIA	2.29	63
HAZARD	2.37	137
SUPRALOC	2.32	123
TOTAL	2.32	953

<sup>a</sup>See Table 6-19, Note c.

<sup>b</sup>1 = much controversy; 3 = no controversy.

## The Problems, Controversies, and Future of the NFIP

the higher the return probability of a flood, the more consensus about the community having experienced a serious flood within the past 10 years, and the more people in a community who have personally experienced a flood, then the more controversy about the NFIP there is in the community. NFIP becomes more controversial as the salience of the community's flood problem increases.

Only one disaster philosophy item was significantly correlated with mean controversy scores at the aggregate level. The more the community, as a whole, disagreed with the relief-rehabilitation approach to disaster mitiga-

TABLE 6.25

### Zero-Order Correlations of Aggregate Controversy Means with Other Selected Characteristics (N = 82, Only Those LPJs in the Emergency or Regular Phase of NFIP)

Independent Variables	r	N
Flood Seriousness	-.37**	82
Hurricane Seriousness	-.09**	82
Return Probability - Flood	-.47**	82
Return Probability - Hurricane	-.05**	82
Flood Experience - LPJ	-.35**	82
Hurricane Experience - LPJ	-.10**	82
Flood Experience - Personal	-.28**	82
Hurricane Experience - Personal	-.03	82
Free-Market	-.09	82
Structural Works	.03	82
Land Use Controls	.12	82
Insurance	.10	82
Relief-Rehabilitation	-.24**	82
% Republican	-.24**	82
% Owner-Occupied	-.20**	77
% in Construction	-.17	77
Population 1970	-.003	82
Median Income 1970	-.03	77
% Groups-Active Dis. Legisl.	-.28**	82
% Groups-Impt. Dis. Legisl.	-.04	82
% Groups-Favor Land Use Control	-.03	82
% Groups-Support Environmental Concerns	-.15	82
Serious Enough Problem	-.27**	82
Property Values	-.35**	81
Development	-.29**	82
FHBM Too Many Errors	-.14	81
FHBM Not Detailed Enough	-.14	81
Homeowners Not Interested	-.04**	82
Administering the Program	-.19**	82
Coverage	-.24**	82
Insurance Companies	-.09**	81
Homeowners Complain	-.36**	82
Too Many Appeals and Variances	-.44**	82
Insurance Costs-Excessive	-.23**	82

number of opposing groups mentioned, of course, did vary by respondents' formal positions. Real estate and development interests cited the largest number of opposing groups on average ( $\bar{X} = 3.02$ ); local appointed officials cited the least number of groups on average ( $\bar{X} = 1.08$ ).

### Aggregate Level Controversy over the NFIP

The amount of controversy touched off by the NFIP varies quite substantially across the 82 sample communities that are in either the regular or emergency phases of the program. In two communities, for example, every respondent who answered the question said that NFIP had sparked "no controversy at all." At the other extreme, the mean level of perceived controversy in Houston was 1.57—about midway between "much" and "some" controversy. What accounts for this city-by-city variation in the controversiality of NFIP?

Table 6.25 presents the zero-order correlations of mean aggregate controversy scores with other selected community characteristics. The most striking finding is that all flood variables are significantly correlated with aggregate mean controversy. The more seriousness is attributed to flooding,

tion, the more controversial the NFIP became. Also, the greater the percentage of Republicans, the greater the percentage of owner-occupied homes, and the larger the number of groups or individuals active in disaster legislation in the community, the more controversial the NFIP became. Having had problems with the program also increases the level of controversy; all coefficients are negative, and seven are statistically significant.

### The Brighter Side

We have discussed respondents' opinions concerning the problems and controversies of the NFIP, but not their opinions regarding its accomplishments. Those who said their community was participating in the NFIP were also asked whether they agreed or disagreed with the statement that, "homeowners who live in flood-prone areas can now feel more secure that flood damage will be covered by insurance." Over 90% of the respondents agreed that this was true (Table 6.26); those agreeing, of course, have significantly more positive attitudes toward the NFIP. We also asked whether respondents agreed or disagreed that "people who want to buy a home are more conscious of flood risk hazards now that flood-prone areas have been mapped." A strong majority—70.2%—agreed that this was true, and those agreeing tended to have more favorable attitudes.

The data reveal some other bright spots as well. In discussions of the NFIP, for example, one often hears the complaint that areas identified as flood prone by the Federal Insurance Administration "have never been flooded as far back as anyone can remember." We asked our respondents whether this complaint had been voiced in their communities and found that 42% had never heard the complaint, 36% had heard it "once in a while," and only 23% had heard it "frequently." We also asked whether each respondent felt that the NFIP restrictions on building and development were "too strict," "too lenient," or "about right." About 67% thought they were "about right," and only 20% felt they were "too strict."

An analysis of these four questions by elite job position showed the by now predictable pattern. Hazard specialists were most likely to feel that the provisions of the NFIP were "too lenient." Respondents with careers in real estate and development were most likely to disagree that prospective homebuyers would now be more aware of flood hazard; they were most likely to have heard the complaint that flood-hazard areas had not been flooded in recent memory; and they were most likely to feel that the NFIP provisions were "too strict." The consistency of their position on NFIP and all of its components comes through in every data analysis.

TABLE 6.26

#### Selected Views About What the National Flood Insurance Accomplishes (Local Elites Only)

"The defenders of the Flood Insurance Program say that it has a number of good points. For example, homeowners who live in flood prone areas can now feel more secure that flood damages will be covered by insurance. Do you agree or disagree with this statement?"

Agree	Disagree	100% =
91.3%	8.7%	(941)

"People who want to buy a home are more conscious of flood risk hazards now that flood prone areas have been mapped. Do you agree or disagree with this statement?"

Agree	Disagree	100% =
70.2%	29.8%	(941)

"One criticism that has been made of the Flood Insurance Program is that places that have never been flooded as far back as anyone can remember have been identified as flood hazard prone. Have you heard this criticism here in (LPJ) frequently, once in a while, or not at all?"

Heard Frequently	Once in a While	Not at All	100% =
22.8%	35.6%	41.6%	(961)

"Do you think the Flood Insurance Program's current restrictions on building and development in flood hazard areas are too strict, about right, or too lenient?"

Too Strict	About Right	Too Lenient	100% =
20.0%	67.5%	12.6%	(851)

A final question in this sequence asked, "In the long run, let's say over the next twenty years, how much effect do you think the flood insurance program will have on development and construction in flood hazard areas—a very strong effect, some effect, or no effect at all?" Over 31% of the respondents anticipated that the NFIP would have "a very strong effect," and another 53.9% felt it would have at least "some effect." Thus, only 14.5% feel that the NFIP will have no effect along these lines.

Table 6.27 shows mean perceived NFIP effectiveness scores by elite groupings. The anticipation that the NFIP will prove effective in restricting development in hazardous areas does not vary substantially across elite groupings. Of particular interest, the real estate and development interests are just as likely to feel that the NFIP will prove effective toward this end as all other groups shown, contrary to what might have been predicted.

TABLE 6.27

## Perceived Effectiveness of the Flood Insurance Program By Local Elite Groups

GROUPS <sup>a</sup>	"In the long run, let's say over the next twenty years, how much effect do you think the flood insurance program will have on development and construction in flood hazard areas in (LPJ) - a very strong effect, some effect, or no effect at all?"	
	$\bar{X}$	N
EXEC	1.85	79
LEGISL	1.73	168
PLZON	1.78	105
APPOINT	1.87	86
BUS	1.97	93
DEV	1.75	98
MEDIA	1.90	62
HAZARD	1.87	142
SUPRALOC	1.84	128

<sup>a</sup>See Table 6-19, Note c.

## SUMMARY AND CONCLUSIONS

The evidence presented in this chapter concerning the reception of the NFIP at state and local levels supports the following general conclusions:

1. At the state level, virtually all elites have at least heard of the NFIP. General opinion about the NFIP is highly favorable, although opinions about the NFIP itself are substantially more favorable than are opinions toward the global risk-mitigation policies it expresses (see Chapter 4.). In general, the favorability of a respondent or of a state toward the NFIP increases with the seriousness attributed to water-borne hazard problems and with general political outlooks favorable to the concepts contained within the program. As in previous analyses, respondents' generalized political views (liberalism-conservatism) provide a good fix on their outlooks toward the NFIP: Liberals support the program; conservatives tend to oppose it.

2. On all relevant indicators, state elites representing real-estate and development interests are least favorably disposed toward the NFIP.

## Summary and Conclusions

3. In general, state elites are not very well informed about the status of floodplain regulations in their states. Among those with enough information to answer the question, however, the large majority believe that the NFIP has not interfered with other statewide efforts to regulate the use of land in potential flood-hazard areas.

4. In most of the sample states, state elites are somewhat more favorable toward the NFIP than are local elites, probably reflecting the increase in seriousness of hazards problems at the state level.

5. The findings for local elites are similar to those for state elites for the NFIP question sequence. As among state elites, most local elites had at least heard of the NFIP at the time of the survey, although their awareness of one's community's participation in the program was generally lower than was that of the state elites. In general, awareness of community participation is highest where the salience of the hazard problem is also highest.

6. Local elites are generally favorable toward the NFIP; as among the state elites, more people favor the program per se than the specific risk-mitigation philosophies inherent in it. Favorability toward the NFIP increases with disaster seriousness, salience, and prior experience, but, interestingly, tends to decrease as community socioeconomic status increases.

7. Real estate and development interests at the local level represent the major opponents to the NFIP on all relevant indicators.

8. Most respondents in most communities feel that the community's flood problem is sufficient to justify participation in the program.

9. Most communities have experienced at least some problems in implementing the NFIP. Local respondents mentioned an average of about 4 (of 11 total possible) problems with the NFIP arising in the local community. Problems with the maps are most frequently mentioned; problems with abandoned development projects are least frequently mentioned. In general, real estate and development interests mention more problems than other respondents.

10. Most local respondents feel that the NFIP is fair to all groups affected by it. The NFIP is seen as being most fair to homeowners living in hazardous areas and least fair to owners of undeveloped land in these same areas. Realtors and developers tend to see the NFIP as less fair than do other respondents.

11. Our respondents do not consider the NFIP to be a highly controversial issue. Forty percent say that it sparked "no controversy at all" in the community, and only 10% say it sparked "much controversy." Realtors and developers see the NFIP as being more controversial than do other respondents.

12. The real estate and development interests' opposition to the NFIP is common knowledge throughout the communities; more respondents men-

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tioned these interests than mentioned any other single group as having been opposed to the NFIP.

13 The NFIP tends to be most controversial in communities where the seriousness, salience, and prior experience with flooding is highest. As suggested in previous chapters, prior experience with disaster seems to increase the stakes involved in any hazard-mitigation program, but does not create a community consensus regarding which policies should be pursued.

14. Finally, despite the problems and controversies noted by our sample, the large majority of the respondents feel that the NFIP has increased the security of persons living in hazardous areas and has raised the level of consciousness of flood risk within the community. Most respondents also feel that the the NFIP restrictions on construction in flood-hazard areas are "about right"; only 20% feel they are "too strict." Likewise, the large majority feel that, in the long run, NFIP will be at least somewhat (or strongly) effective in reducing development and construction in flood-hazard areas.