Compensation and Indemnification of Victims of Catastrophic Events

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This paper provides information, perspectives, principles, and unresolved issues concerning the roles of government in dealing with private losses (of individuals and enterprises) brought about through catastrophic events like large earthquakes or hurricanes and the terrorism of 911. The losses we consider are those arising from personal injury and death, unemployment and lost profits, and physical property damage and destruction. What might be termed "financial loss from harm to intangible property" is not addressed.

I. Background Compensation/Indemnity Schemes

It is essential to appreciate at the outset that individuals and enterprises who suffer loss as a result of a catastrophic event may be eligible to receive compensation or indemnification from a variety of different public and/or private sources that are not exclusively aimed at victims of catastrophes.

A. Personal Injury and Death.

- Medical expenses may be covered by privately purchased (or employer-provided) health insurance and/or by governmental programs such as Medicare/Medicaid.
- Income loss arising from disability (especially total disability) may be covered by privately purchased (or employer-provided) disability insurance and/or Social Security. Temporary disability benefits may be covered by state plans (in a few states) and/or by employment-based sick leave.
- Death benefits may be provided to survivors by Social Security and/or life insurance.
- These same types of losses may also be covered by government-mandated workers' compensation plans (generally state-level schemes) provided that the

catastrophe-connected injury (or death) arose out of the individual's employment.

• Tort compensation may be also available (generally under state law), if the catastrophe-connected injury (or death) was proximately caused by a breach of legal duty of another. Tort recovery, it should be emphasized, will frequently extend to losses not covered by many other regimes – most importantly 1) non-economic loss (pain and suffering), 2) a much wider array of expenses of disability than conventionally qualify as medical costs under health insurance policies, and 3) 100% replacement of lost income and earning power (at least in theory).

B. Job Loss (temporary).

• For most workers, the loss of income due to temporary unemployment is partially covered by state-level governmental programs.

C. Property Damage.

- Damage to physical property (buildings, land, and tangible personal property) is not generally covered by governmental assistance programs -- except for those programs specifically designed to deal with catastrophes (see below).
- Instead, private insurance is generally available for purchase by property owners that covers losses from damage to, or destruction of, their property. But (see below) private insurers frequently seek to (and do) exclude coverage for property damage caused by several specifically listed catastrophes.
- Tort compensation may also be available for damage to property.

D. <u>Temporary Lost Profit (income loss from business interruption)</u> and temporary extra expenses.

- For enterprises, privately purchased insurance is generally available (as an optional add on) for the loss of business income caused by damage to, or the destruction of, covered physical property.
- For individuals, privately purchased insurance is also generally available (often as an optional add-on to "homeowners' insurance) for extra expenses (like relocation and temporary housing costs) caused by damage to, or the destruction of, covered physical property. (renters?)
- Because these benefits turn on coverage of the underlying property, they will not be available if harm to the property occurs because of an excluded catastrophe.
- Tort compensation may also be available for these losses.

Discussion. When a catastrophe occurs, victims may turn to these various sources of financial support just described. Sometimes the loss could have been covered, but the victim failed to acquire the relevant private insurance in advance or had not qualified for the relevant government program (e.g., because of insufficient prior/recent earnings). Sometimes, however, ex ante there was no way to have acquired protection (e.g., this was an excluded risk from available insurance). Sometimes some advance protection has been arranged, but ex post it is understood to be woefully inadequate.

Given this state of affairs, this paper explores what government has done, and what else it might and should do, to deal with losses from catastrophes that are not covered by these broader, non-catastrophe-specific arrangements.

For these purposes, we assume that there will be no changes in the basic public programs noted above (i.e., those not targeted at catastrophes), and we assume that, absent government intervention, there will be no changes in the private insurance market.

One strategy is for government to act in ways to increase insurance protection ex ante. Part II looks at this role – that is, we explore what government does, and might do, with respect to losses from catastrophic events to assure a) insurance availability, b) insurance purchase, and c) the full and prompt payment of legitimate insurance claims.

A second strategy is for government to provide special benefits for victims of catastrophes (or at least of some catastrophes) through mechanisms that are outside of what is conventionally understood to be insurance. These benefit arrangements might be established before the catastrophe occurs or they might be created afterwards. Part III explores what government has and might do in these ways.

Before beginning these discussions, however, we want to raise one additional point. Sometimes there may be strong policy reasons for not wanting victims of catastrophes to be able to successfully claim benefits from one (or more) of the basic, more general, compensation sources already mentioned. This might be apparent before the catastrophe, or it might not. In either event, government might decide to act to preclude (or reduce) certain claims before or after the event. Government may oppose such claims because, on balance, it simply does not want victims protected or because it wants to channel their claims into a special program aimed at catastrophes (or at a specific catastrophe or type of catastrophe). This theme will be developed below, but we note for now that tort claims are particularly relevant here.

II. Roles of Government with Respect to Insurance – promoting the availability and effectiveness of private/public insurance in indemnifying losses caused by catastrophes

The government, both federal and state, not only regulates insurance; it also participates in the business of insuring as either an insurer or a reinsurer, often with respect to different types of losses caused by a catastrophe. Prominent examples include important components of Social Security (survivors, disability, Medicare, and Medicaid), unemployment insurance, workers' compensation insurance, crop insurance, public property insurance, war risk insurance, nuclear hazards insurance, flood insurance, earthquake insurance, and terrorism insurance. There are varied rationales for the government's regulation of insurance and its limited participation in the business of insuring. Here we focus on the issues of particular relevance for insuring against loss arising from a catastrophic event: What can and should the government do?

The injuries caused by catastrophic event tend to be widely experienced within a geographically concentrated area, creating a difficult problem for the private provision of insurance. When there is a high-degree of correlation among losses of the same type, the private market often is unable to develop or sustain insurance arrangements. This common problem explains why the government has intervened and participated in the otherwise diverse areas of unemployment insurance, crop insurance, war risk insurance, nuclear hazards insurance, flood insurance, earthquake insurance, and terrorism insurance. In light of this difficult insurance problem, a central issue is whether we want or need mandatory comprehensive catastrophe insurance, and if so, whether the government should participate in providing the insurance.

Deciding how best to insure against catastrophic loss can involve controversial choices, but the inquiry ought to be depend upon the following principle that we assume is widely acceptable:

Public authorities should take action helping to develop and maintain insurance programs to respond to as broad an array of catastrophic events as feasible. In undertaking such action, the government should consider at least four distinctive roles:

- addressing problems that hinder the private market from offering insurance against catastrophic loss;
- assuring the availability and provision of coverage;
- assuring that insurance premiums adequately reflect risk while being affordable to all segments of the community subject to the risk of catastrophic loss; and
- assuring that the massive number of claims likely to be filed after a catastrophe are handled as fairly and expeditiously as possible.

A. Furthering the Development of Private Insurance Mechanisms.

1. The federal and state governments already extensively regulate the market for private insurance. Governmental actions regarding other forms of private insurance are not necessarily adequate for insurance covering catastrophic events. The market provision of insurance for catastrophic events involves issues of insurability that are much more difficult than those posed by other forms of insurance, creating a distinctive role for governmental action.

Discussion. The ideal risk for private insurance satisfies the statistical property known as the "law of large numbers." For these risks, each individual policyholder poses a relatively small risk of loss that is independent of the losses faced by other policyholders. When a private insurer sells a sufficiently large number of policies covering risks of this type, the insurer can be confident that the covered losses for each policy period will not greatly exceed the risk-based premiums it has collected from policyholders. The ideal risk for private insurance, therefore, is one that substantially reduces the variability of insurer costs and profits.

Private insurance covering catastrophic events does not ordinarily satisfy the law of large numbers within any given jurisdiction. Insurance is primarily governed by state law and provided by private insurers on a state-by-state basis. Within any state, a single calamity causes the same types of loss to large numbers of policyholders. The hurricane damage suffered by one property owner in Florida will be suffered by numerous others. The risk of loss among policyholders is not independent but rather correlated or

dependent. For risks of this type, the insurer cannot be confident that the covered losses for each policy period will be covered by the risk-based premiums it has collected. The risk of loss caused by calamity can produce substantial variability for insurer costs and profits, with the associated potential for severely disrupting the market for private insurance.

Sources: Dwight M. Jaffee & Thomas Russell, Catastrophe Insurance, Capital Markets, and Uninsurable Risks, 64 J. Risk & Insur. 205 (1997) (showing how the "fundamental problem of catastrophe insurance" is figuring out "how to smooth large losses over time"); see also David Cummins, Should the Government Provide Insurance for Catastrophe?, 88 Federal Reserve Bank of St. Louis Review 337 (2006) (showing that when risks are perfectly independent, the insurers' required equity capital per policy to avoid a specified chance of insolvency approaches zero as the number of insureds becomes very large); W. Kip Viscusi & Patricia Born, The Catastrophic Effect of Natural Disasters on Insurance Markets, National Bureau of Economic Research, Working Paper 12348 (June 2006) (empirical study finding that the widespread events of unexpected catastrophes and "blockbuster" catastrophes reduce total premiums earned in state, reduce the net number of firms writing insurance coverage in the state, and increase the probability a firm will exit from the state).

2. To help develop the private market for insurance covering catastrophic events, the government should consider actions that would make it easier for insurers to reinsure catastrophic losses.

Discussion. Reinsurance involves the shifting of part or all of the insurance originally written by one insurer to another insurer (the re-insurer). Reinsurance is the primary mechanism for insurers to diversify their portfolio of covered hazards. An insurer selling hurricane coverage in Florida, for example, can reinsure those risks on the London market, thereby distributing the highly correlated risk of loss from the localized Florida market into the global financial market. Reinsurance can substantially reduce the variability of insurer costs and profits for catastrophic loss, making it critical for the viability of private insurance covering catastrophic losses. The critical role of reinsurance is illustrated by the market withdrawal of terrorism insurance following the attacks of September 11, 2001. Many proposals regarding private-market initiatives for catastrophe insurance rely upon financial innovations that would increase the capacity of the reinsurance market by making it easier to diversify catastrophic risks.

Sources: The Financing of Catastrophe Risk (Kenneth Froot ed. 1999) (providing various economic studies of reinsurance market for catastrophic risks); Insurance Information Institute, Reinsurance (Sept. 2006), available on-line at

www.iii.org/media/hottopics/insurance (discussing role of reinsurance for catastrophic loss and variety of proposals for strengthening the market); see also J. David Cummins & Christopher M. Lewis, Catastrophic Events, Parameter Uncertainty and the Breakdown of Implicit Long-Term Contracting: The Case of Terrorism Insurance, 26 J. Risk & Uncer. 153 (2003) (discussing breakdown of reinsurance market following 2001 terrorist attacks and governmental response); Insurance Information Institute, Terrorism Risk and Insurance (Sept. 2006), available on-line at www.iii.org/media/hottopics/insurance (discussing limited capacity of reinsurance market for covering terrorism risks); Patrick Murphy O'Connor Benfield, Recent Trends in the Catastrophic Risk/ Reinsurance Market, in Catastrophic Risks and Insurance 41 (Organization for Economic Development and Cooperation 2005) (stating that "most industry observers continue to see commercial capacity as inadequate for catastrophic terrorism exposures"); Michele David, The Potential for New Derivatives Instruments to Cover Terrorism Risks, in Catastrophic Risks and Insurance 163 (Organization for Economic Development and Cooperation 2005) (discussing derivative instruments for diversifying terrorism risks and concluding that the primary impediment in the short run "is that accepted models do not yet exist to assess terrorism risk").

3. To help develop the private market for insurance covering catastrophic events, the government should ensure that insurers have retained sufficiently large amounts of capital to cover catastrophic losses. The government should also consider actions that would make it easier for insurers to retain capital for this purpose.

Discussion. As population has grown and become more geographically concentrated, as the economy has become increasingly globalized, and as the climate continues to change, the nature of risk may have become increasingly correlated over time. The government needs to ensure that existing regulations of the insurance industry are not based upon an outmoded understanding of insurance as largely involving relatively small, uncorrelated or independent risks. The amount of capital an insurance company should set aside to cover its expected liabilities depends upon whether the covered risks are independent or correlated. Independent risks require much lower levels of retained capital. Today the amount of capital held by insurers may be inadequate for large catastrophic losses. evaluating the adequacy of retained capital for catastrophic losses, the government should consider whether it is possible to ease obstacles faced by insurers in retaining capital, such as those posed by accounting and tax rules. The retention of capital in an insurance company is costly, and reforms to reduce these costs would make it easier for insurers to retain the amount of capital that is appropriate for catastrophic loss.

Sources: David Cummins, Should the Government Provide Insurance for Catastrophe?, 88 Federal Reserve Bank of St. Louis Review 337 (2006) (showing that when risks are perfectly independent, the insurers' required equity capital per policy approaches zero as the number of insureds becomes very large); Dwight M. Jaffee & Thomas Russell, Catastrophe Insurance, Capital Markets, and Uninsurable Risks, 64 J. Risk & Insur. 205 (1997) (describing insurer costs of retaining capital and showing that insurance companies need to retain more capital for the correlated risks involved in catastrophic losses); see also Insurance Information Institute, Catastrophes: Insurance Issues (Sept. 2006), available on-line at www.iii.org/media/hottopics/insurance (providing data showing that seven of the ten most costly catastrophes for property damage in the US have occurred in this century, and that increased coastal development has now exposed \$6.86 trillion of real estate property to hurricane and wind damage along the Gulf and Atlantic coasts); Insurance Information Institute, Terrorism Risk and Insurance (Sept. 2006), available on-line at www.iii.org/media/hottopics/insurance (discussing proposals for tax-deferred catastrophe reserves); Rawle O. King, National Flood Insurance Program: Treasury Borrowing in the Aftermath of Hurricane Katrina, Congressional Research Service Report for Congress, Order Code RS22394 (June 6, 2006) (providing data that the National Flood Insurance Program incurred liabilities of at least \$23 billion due to the 2005 Gulf Coast hurricanes, exceeding the \$2.2 billion in annual premiums and its \$1.5 billion borrowing authority from the US Treasury); Robert Klein, Regulation and Catastrophe Insurance, in Paying the Price: The Status and Role of Insurance Against Natural Disasters in the United States (H. Kunreuther & R. Roth eds. 1998) (discussing various regulatory reforms for catastrophic risk); Tillinghast, Workers' Compensation Terrorism Reinsurance Pool Feasibility Study, (Feb. 2004) (concluding that the private workers' compensation industry, which has about \$30 billion in capital, does not have enough to cover a major terrorism loss, which could reach \$90 billion).

4. To help develop the private market for insurance covering catastrophic events, the government should consider ways to increase rational consumer demand for such insurance. In addition to having readily accessible knowledge of the currently available coverage, consumers should be clearly apprised of the types of loss that are not insurable or otherwise not covered by existing programs.

Discussion. Due to the variety of sources providing compensation and indemnification for catastrophic loss, lay individuals have a hard time identifying the insurance coverage they need. The decision-making problem is compounded by the difficulty of evaluating the low probability/high loss scenarios posed by catastrophic events. The current system requires each individual to assess a variety of insurance mechanisms, with each covering specified risks such as the risk of flooding or of earthquake. All of these factors help to explain why individuals tend to purchase inadequate amounts of insurance. As compared to the current system, consumer demand might

be increased by a comprehensive form of catastrophe insurance. Whether such insurance, or any other form of insurance covering catastrophic events, should be mandated by the government depends upon whether lay individuals are likely to make good insurance decisions when sufficiently informed of the relevant factors.

Sources: Howard Kunreuther & Mark Pauly, Rules Rather than Discretion: Lessons from Hurricane Katrina, National Bureau of Economic Research, Working Paper 12503 (Aug. 2006) (analyzing consumer decision to purchase insurance and arguing that empirical studies support model in which most lay individuals behave as if there were zero likelihood of a disaster, causing them to forego costly protective measures and the purchase of sufficient insurance, even at subsidized rates); Hurricane Insurance Information Center, New Hurricane Readiness Index: Coastal Homeowners from Texas to Maine Only Half-Prepared to Recover from Major Storm, available on-line at http://www.disasterinformation.org (providing results of survey finding that the average insured homeowners "throughout Gulf and Atlantic coastal communities have taken just half the steps which would best position them to recover from a major storm"); see also Martin F. Grace, Robert W. Klein & Paul R. Kleindorfer, Homeowners' Insurance with Bundled Catastrophe Coverage, 71 J. of Risk and Insur. 351 (2004); Howard Kunreuther, Comprehensive Disaster Insurance: Has its Time Come? (2006).

B. <u>Assuring the Availability and Provision of Coverage.</u>

1. To the extent that problems of supply or demand prevent the private market from providing adequate insurance coverage for catastrophic events, the government should consider whether to provide such coverage on its own or require those individuals at risk to purchase insurance.

Discussion. The government already provides mandatory coverage for certain forms of catastrophic loss. For example, unemployment insurance generally covers everyone who has a recent earnings history and is not self-employed. Under the federal Disaster Unemployment Assistance Program, this coverage is extended to anyone who has become unemployed as a result of a major disaster declared by the President. As illustrated by this program, the government is already involved in the provision of mandatory insurance for catastrophic loss.

Nevertheless, the governmental provision of insurance can be highly controversial, as illustrated by the debate over health insurance. In evaluating the desirability of either governmentally provided insurance or the mandatory purchase of private insurance, it is important to recognize that the uninsured losses caused by catastrophic events are likely to be partially

borne by tax payers anyway. The issue is not whether individuals will receive some indemnification for catastrophic loss, but how much and from what source. By taking a realistic approach to the problems of insuring against the losses caused by calamity, governmental action is more likely to produce an efficient and equitable use of scarce social resources.

Sources: 42 U.S.C. 5177 (authorizing Disaster Unemployment Assistance Program); 20 C.F.R. 625 (regulations for Disaster Unemployment Assistance Program); David Cummins, Should the Government Provide Insurance for Catastrophe?, 88 Federal Reserve Bank of St. Louis Review 337 (2006) (cautioning against the government provision of insurance due to the possibility it will "crowd out" more efficient private-market solutions, but acknowledging an appropriate federal role for large catastrophic losses); Rawle O. King, Hurricanes and Disaster Risk Financing Through Insurance: Challenges and Policy Options, Congressional Research Service Report for Congress, Order Code RL32825 (March 25, 2005) (describing range of legislative responses to catastrophic loss, existing legislative proposals, and various issues that legislation would need to consider); see also Paul K. Freeman & Kathryn Scott, Comparative Analysis of Large Scale Catastrophe Compensation Schemes, in Catastrophic Risks and Insurance 163 (Organization for Economic Development and Cooperation 2005) (discussing approach of 16 OECD countries in providing some form of governmental insurance for large-scale catastrophic loss).

C. <u>Assuring the Affordability of Coverage.</u>

1. Whenever feasible, insurance premiums should equal the expected value of the insured-against loss plus a loading factor to cover the insurer's marketing costs, risk-assessment costs, settlement costs, and a normal profit. Rather than subsidizing premiums to make catastrophe insurance affordable, whenever feasible the government should rely upon other forms of subsidies, such as tax transfers or insurance "vouchers."

Discussion. When premiums accurately reflect risk, individuals can more readily understand the dangers of locating in hazardous areas and have an incentive to adopt costly measures for reducing risk (and premiums). Subsidized insurance premiums do not accurately reflect risk, thereby encouraging development in hazard-prone areas and undermining the economic incentive for individuals to adopt risk-mitigation measures. For example, the National Flood Insurance Program (NFIP) provided subsidized premiums for residents who were residing in flood-prone areas at the time when the program was first implemented. According to a recent government study, these properties were involved in a disproportionately high number of

claims, indicating that the subsidized policyholders had an insufficient incentive to mitigate flood hazards.

Sources: Howard Kunreuther, Reflections on U.S. Disaster Insurance Policy for the 21st Century, National Bureau of Economic Research, Working Paper 12449 (Aug. 2006) (describing benefits of risk-based premiums for individual decisionmaking); U.S. Govt. Accountability Office, Federal Emergency Management Agency: Challenges Facing the National Flood Insurance Program, GAO-06-174T (2006) (finding that structures receiving flood insurance payments of \$1,000 or more over a 10 year period constitute less than 1 percent of properties covered under NFIP but involve approximately 25-30 percent of all claims).

D. <u>Processing of Claims.</u>

1. The government should ensure that insurance claims for catastrophic loss are processed in a fair and expeditious manner.

Discussion. The fair resolution of claims has long been a matter of central importance for the law of insurance in every state. The ordinary system of civil litigation, however, may not be the most expeditious manner for resolving disputes concerning a large number of insurance claims following a catastrophe. Prolonged delay can make any resolution unfair for policyholders who are in dire need of the insurance proceeds. The government, therefore, should consider whether it would be appropriate to adopt special procedures for processing insurance claims following catastrophe. [Insert cross reference to the report on procedural principles for catastrophic loss.]

III. Roles of Government Beyond Insurance

To briefly illustrate the sorts of things we have in mind that government might do to provide compensation under this heading, we will quickly sketch some key examples of what it has done.

A. Examples of Relevant Schemes.

1. FEMA

The Federal Emergency Management Agency (FEMA) is charged with stepping in to provide help when the President declares that a catastrophe of sufficient magnitude has occurred to warrant federal intervention. We do not view this as the occasion for examining the criteria that Presidents actually use, or should use, in deciding when such a declaration is appropriately made. We should also emphasize that much of what FEMA provides by way of assistance is outside of our inquiry. For example, FEMA will help with rescue and clean-up efforts. Moreover, FEMA helps with rebuilding public infrastructure. These are all very important roles, but they do not go centrally to individual (or business) compensation.

For our realm, FEMA will, perhaps most importantly, provide temporary housing and food assistance in the immediate aftermath of a catastrophic event, ongoing transitional housing assistance while catastrophe victims are unable to return home or secure permanent alternative housing, and (through money typically made available by the Small Business Administration) below-market-rate loans to help property owners repair and rebuild. Some of this assistance is provided in cash, some via vouchers, and some in-kind.

Note that FEMA's basic function does not centrally focus on the financial consequences of deaths and personal injuries caused by catastrophic events. Those injured by, and the survivors of those killed by, the "Northridge earthquake," for example, were not provided special FEMA benefits for loss of future income, loss of life, long term medical care and the like. Rather, FEMA's core mandate in our realm is to attend to a range of needs that arise when catastrophic events damage or destroy property (especially homes).

Note further that some of these needs to which FEMA responds exist because people simply cannot readily protect themselves against the risk.

For example, renters may simply not be able to find temporary or new affordable housing to rent if their unit is made uninhabitable. Moreover, this need for help with housing may be exacerbated by temporary (or longer) job loss that also arises from the catastrophe. (However, some mention here might be made of the special Disaster Unemployment Assistance Program.)

Other times, one might have imagined that homeowners could have insured against the risk of damage to their property and the need for temporary relocation assistance. Yet, as already discussed, perhaps private insurance excluded coverage of this catastrophe and no government action had been taken to fill the insurance gap. Or perhaps there some special coverage was available (like flood insurance or terrorism insurance or earthquake insurance) that many homeowners simply failed to purchase (perhaps out of ignorance, perhaps because they psychologically discounted the risk to 0, perhaps because of what seemed to them to be the excessively burdensome cost, perhaps knowingly and deliberately, and so on). Regardless of what one thinks of their deserts, the needs of such homeowners are typically made vivid in the aftermath of the catastrophic event, especially when there are large numbers of them.

2. The September 11 Victim Compensation Fund ("911 Plan").

After the September 11, 2001 terrorism events, Congress quickly enacted a compensation plan about which much has been written and which will not be rehearsed in detail here. Many believe that the primary motivations for the 911 Plan at the time were to protect the financial solvency of the airlines, to show national solidarity with the victims, and to keep the focus of blame on the terrorists. The 911 Plan eventually paid out between \$6 and \$7 billion to claimants.

What we want to emphasize here is that this plan was targeted primarily at the survivors of those killed by the terrorist events of the day, and secondarily at those suffering physical injury directly resulting from the four plane crashes and the rescue efforts to save people trapped in or fleeing from the World Trade Center towers. Our point is that this is in sharp contrast to the needs that FEMA normally target with its assistance.

Of course, the property damage of the 911 events was most importantly to the WTC and surrounding commercial buildings, the airplanes, and the Pentagon – and those losses were centrally left to be handled by pre-existing property damage insurance (and equivalent arrangements).

3. Special Hurrricane Katrina Homeowner Assistance.

FEMA (notwithstanding all the criticism it received) provided, and continues to provide, its normal sorts of assistance to large numbers of people who fled or were eventually rescued from the consequences of hurricane Katrina.

Unlike the 911 Plan, however, no special scheme was created to provide compensation to the survivors of those who died from Katrina or to those who suffered personal injuries from the hurricane. As noted already, this is the normal rule under FEMA.

Nevertheless, Congress later enacted special plans (anticipated to cost upwards of \$10 billion and hence even more than the 911 Plan) to provide financial assistance to help Katrina victims repair and rebuild their homes (and workplaces?). Somewhat different schemes are currently up, and beginning to function, in Louisiana and Mississippi. Simplifying, these schemes are awarding grants, rather than merely loans, to homeowners.

4. A Possible Nuclear Calamity.

Fortunately, we in the U.S. have not experienced anything like the Chernobyl catastrophe. But Congress has taken steps to create in advance a mechanism to deal with the possibility of a catastrophic event connected to a nuclear power plant. This scheme is embodied in the now much-amended Price-Anderson Act.

Simply put, recovery in tort under principles of strict liability is assured to victims of all the harms that tort law would normally cover. But the size of the pool of guaranteed funds, and hence the scope of the potential financial liability of the nuclear power industry, is capped. This cap was understood to be essential to allow the nuclear power industry to get underway and remain commercially viable, a matter examined further below.

More precisely, each plant has to have in place liability insurance up to what the private market will provide (and so, as that sum increases, Congress tends to increase the required coverage -- \$300 million per plant as of now).

And then, in the event of an accident that more than exhausts the defendant's liability insurance coverage, the operators of all of the nuclear power plants in the country would have to chip in up to a Congressionally-determined sum to provide yet substantial additional compensation to victims (the amount of that contribution has also been increased over the years, standing at nearly \$100 million per plant as of now). At present, therefore, the total available for compensation would be approximately \$10 billion. We reemphasize that these pools of money could be used to pay compensation for both personal injury and death on the one hand and property and related economic loss on the other.

Were an event of the scale of Chernobyl to occur, however, the funds described so far would surely be inadequate to cover all the valid claims. While victims would not statutorily have any further recourse (apart from what FEMA might routinely provide) there are markers left in the Price-Anderson law and its legislative history suggesting that Congress would do more – although precisely what more it would do is not clear.

B. <u>Possible Justifications for Governmental Compensation Assistance</u> <u>Beyond Insurance.</u>

These quite different examples before us, we turn now to sketch a series of possible justifications for government stepping in to provide compensation to victims of catastrophes (some of which have already been hinted at).

1. Government failed in its responsibility to prevent the catastrophe (or at least failed to reduce sharply the consequences of the event that caused the catastrophe).

This first justification rests on the idea that, when the public expects government officials to prevent a large-scale harm from occurring and yet the catastrophic event happens anyway, this may in turn generate a belief that the victims of that failure are entitled to compensation.

Sometimes a "failure" of this sort may be pinned on specific government actors who were "at fault" in the ordinary sense in which we mean a tortfeasor who commits negligence is at fault. Yet, government may also be widely understood to have failed even in the absence of that narrow sense of fault.

For example, on the one hand, suppose that the breaking of the levies around New Orleans at the time of Katrina is shown to have been precisely the fault of specific members of the Army Corps of Engineers; if so, then, as just suggested, that fault might engender a special sense of entitlement to compensation of those harmed by the levies breaking. Yet, on the other hand, it may be sufficient to generate that sense of entitlement that people had strongly counted on the Corps to have solved this problem. And so, when the levies proved not to be up to the task that might be understood to be a government failure – even if it would be wrong to say that any individuals in the Corps were negligent in the traditional sense. (Parallel points might be made about the failure of government to launch an adequate evacuation and rescue effort in connection with Katrina – that is, specific government actors might be viewed as having been negligent or worse; or because government is expected to warn people in time and arrange effective ways for them to flee and it did not do that, that failure alone might engender a sense of special entitlement regardless of whether identified public officials were blameworthy.)

So, too, while some may believe that specific government actors were responsible for failing to block the terrorists from carrying out there misdeeds of 911, it might be enough that people think it is government's role to protect us from terrorism. That is, a lack of individual negligence may not matter to those who would conclude that our failure to be protected alone suffices to give government the obligation to provide compensation to the victims of the 911 terrorism. (This is not to argue that the actual 911 Plan was based on the rationale of government failure in either sense.)

It is perhaps worth highlighting that seeing government as having a duty to compensate in the event of these sorts of failures could be based on two quite different underlying conceptions of government. One of these sees government like a giant corporation with a huge deep pocket, and like a corporation that fails to prevent harms it should have prevented, it is fair to call on "the government" to pay for the consequences of that failure. The other perspective sees all of us citizens as responsible for helping out a subset of our fellow citizens when our collective government fails that subset.

Finally, we should add (a point we will elaborate further below) that along with this argument for government responsibility comes the reality that the sorts of government failures at issue here are ones that are unlikely to give

rise to the right of victims to collect from government via tort law. First, as a general proposition, government today is not held strictly liable in tort in any setting, thereby ruling out the potential of imposing through tort law the costs of catastrophes on government simply as a cost of government. Second. even if specific government actors might be judged to have acted irresponsibly in failing to prevent catastrophic harm, they will very likely be protected from lawsuits by federal (and state) tort claims act doctrine that immunizes from attack in court their "discretionary" (or policy) decisions.

2. The scale of the loss risks devastating a community absent the provision of recovery assistance to victims.

The underlying notion here is that for smaller scale events, people in need can generally turn to their family, friends and neighbors for assistance, and if that does not suffice, charitable organizations exist to provide further help, or, if required, citizens can band together through the agency of local government to aid those among them who they, in a sense, already know.

Such smaller scale events may well be catastrophic at the individual level. For someone who becomes quadriplegic through a swimming pool accident, the consequences are likely catastrophic, and so too for someone whose home burns down because of a kitchen fire. But these sorts of catastrophes do not generally incite calls for large scale governmental interventions. The basic non-catastrophe-based programs described at the outset are already in place, plus a variety of special local assistance arrangements just noted are left to deal with the need.

However, with large scale catastrophes, the local community is overwhelmed. Family, friends and neighbors of victims are often also simultaneously harmed, and even it not, the number of victims is so great as to exceed the capacity of those nearby, private charity, and local government to attend to the need.

This, we believe, is the core basis on which FEMA itself rests. At certain special times, the national community believes it should step in to provide help. Note, too, the national community has broad interests of its own in having local communities thrive, and this normally means having them recover, repair and rebuild in the wake of catastrophic events. It is not only that we value the inter-connected social webs that arise from stable communities (and would like to see those webs remain, or be reconstructed

if need be). But also, we worry about the disruptive effects elsewhere of the dislocation and dispersal of people if they are forcibly and suddenly broken away from their community in large numbers and then unable to return. This line of analysis should not be overplayed, for after all, ours is a nation of people constantly on the move, and relocation to a new community is an experience that huge numbers of Americans regularly experience. Nonetheless, this reality about geographic mobility point should not undercut the national benefit of maintaining existing communities.

Furthermore, one should not dismiss the related sense of comfort people might gain from thinking that, if some other catastrophe struck their own community, the rest of the nation would step in to help them too. Indeed, the very practice of national government intervention in cases of past catastrophes probably serves importantly to create expectations that are hard to ignore on the occasion of the next catastrophe.

Finally, we note that their very rarity make imbue catastrophic events with a special allure as occasions for providing collective assistance. Although the public costs of special catastrophe-compensation arrangements may seem large, they are actually modest in contrast with, say, the cost of attending to the housing, income, and medical care needs of America's poor more generally. In short, perhaps it is both easier and symbolically more valuable for society to step up on these dramatic occasions, as ways of showing our humanity to (and altruism towards) others. This may be particularly so in instances in which there is at least some hope that the compensation provided will actually do quite a bit of good and that the bulk of the recipients will be understood as genuinely deserving. Indeed, this sort of episodic provision of aid may salve our consciences for not providing very generous routine aid to those many suffering from the catastrophic consequences of a lifetime of grinding poverty.

3. The nature of a particular catastrophe may arouse special feelings of national empathy with the victims that yields a groundswell of insistence that these victims are especially entitled to our collective support.

While again not claiming that the 911 Plan was specifically based on this idea, one could argue that, as the first victims of a huge foreign terrorist attack on U.S. soil, the 911 victims were viewed by the nation as martyrs who took the hit for the rest of us, or as the accidental victims of an assault on all of us that happened to be pinpointed on them, and as such our sense of

national solidarity with the victims might well be thought to justify the provision of special compensation benefits to them and their survivors.

In quite a different vein, for many of us our country suffered a national embarrassment in the wake of Katrina, as the U.S. was seen around the world to look like a callous or impoverished or developing country – a portrait that we surely want to claim or pretend does not reflect the real America. Hence, the circumstances of this special event might understandably propel us to provide generous after-the-fact assistance to people who were left unprepared and un-rescued at the time of the storm and flood.

4. The special place of tort law.

We have already discussed the idea that catastrophe victims might be thought entitled to compensation when public officials/government actors are arguably to blame for causing or not preventing the catastrophe, especially since those victims normally would have no tort remedy against the government.

Here we turn to situations in which private actors have acted (or might act) in ways that would make them legally liable for the consequences of the catastrophe were regular tort law rules applied. But it may be that there are strong counter pressures against allowing a regular tort remedy.

Sometimes those pressures may prompt government to deny the possibility of tort recovery ex ante. If it does that, there may at the same time be pressure for the creation of an alternative compensation scheme. Other times legislative bodies (like Congress) see the desirability of curtailing tort remedies only after the catastrophe has occurred. In those situations, simply eliminating tort rights could be politically and/or legally difficult to achieve. But curtailing the role of tort law might be possible if a compensation scheme is provided either as a complete substitute or as an optional substitute on terms intended to entice most victims to opt for the substitute. Still other times the judiciary may find reason ex post to curtail tort liability (e.g. for fear of bankrupting vital public utilities). In that event too, there might be pressure on legislative bodies to provide a compensatory substitute.

For example, it seems clear that the nation's electric utilities would not have gone into the nuclear power business if they faced the prospect of unlimited

tort liability, especially because it was evident that the liability insurance industry at that time was only willing to sell coverage that would fall far short of an operator's potential liability in the event of a serious accident. Yet, Congress decided that it was in the national interest to promote the development of nuclear power. Faced with that dilemma, Congress might simply have sought to eliminate victims' tort rights. But this surely would have aroused considerable opposition as highly unjust. The compromise was to cap individual plant tort liability while at the same time create a specified (and capped) fund-in-waiting that would generate a much larger pool of compensation dollars in the event of a grave occurrence. Perhaps because this was all done ex ante with no real experience to draw on, perhaps because it happened some years ago, and perhaps for quite different reasons, the fund that was created stands ready to pay for the full range of possible tort damages if called upon – medical expenses, lost income, pain and suffering, wrongful death compensation, property damage and so on (in the aggregate, of course, only up to the fund's ceiling).

As another example, in the immediate aftermath of the 911 terrorism, members of Congress realized that survivors of those killed on the day were unlikely to gain any financial satisfaction by suing the estates of the terrorists (or even their out-of-country financial backers). They also were acutely award that, in search of compensation (and perhaps a fuller understanding of how this horror could have happened), many survivors of those killed in the attacks (as well as injured WTC occupants and injured rescuers) would likely bring tort suits against the two airlines (United and American) and other firms connected to the flights (those in charge of airport screening, the planes' manufacturer, etc.). United and American did carry \$1.5 billion in tort liability insurance with respect to each plane, but, if the New York City victims and their survivors were all to bring tort claims and win, that insurance would clearly not suffice, remembering as well all of the property and related damage that also occurred. Congress might simply have limited airline liability out of a concern that those two already financially troubled carriers would just go under, to the detriment of the nation as a whole. And indeed, the 911 Plan includes a provision that does indeed cap airline liability at their insurance limits. But, as with the nuclear power setting, Congress quickly concluded that merely enacting a cap would be the wrong thing to do, even quite apart from arguments that this might amount to an unconstitutional denial of due process when enacted after the Hence the 911 fund provided for a publicly-funded alternative compensation mechanism (one that was made optional to the days' victims and their families, but on terms that were sufficiently generous to make nearly all seek compensation via the fund rather than via tort).

Fears of crushing liability through the pursuit of victim tort claims have not been restricted to the nuclear power industry and the airline companies involved on 911. For example, at least two leading decisions of the highest court in New York reflect similar fears. In 1928, in Moch v. Rensselaer Water Works Co., Justice Cardozo and his colleagues denied recovery to the owner of a building that burned down because of the negligent failure of the water company to provide water at the nearby hydrant. While Cardozo casts his opinion in other language, today this limit on tort recovery (which remains the law in nearly all states) is widely understood as designed to protect against the potential bankruptcy of water companies who might be said to have failed to provide adequate water (recall the famous Chicago fire or the more recent Oakland fire that destroyed 3000 homes) and in turn the possible denial to the public of a vital service. So, too, in the wake of the 1977 New York City vast power "black-out" the New York high court, in Strauss v. Belle Realty Co., freed Consolidated Edison from tort liability to at least some victims of the darkness on the ground that to allow tort law its normal reach might be financially devastating to this provider of an essential public service.

Courts, of course, have been understood traditionally as not readily able to create alternative compensation funds for the victims to whom they deny recourse by curtailing their tort rights. Nonetheless, at least in the water cases, property owner victims normally would be expected to have just such an alternative compensation source already available to them - their own property insurance. (An alternative remedy for Con Ed victims whose tort rights were cut off is not so easily identified, although the actual plaintiff in the case before the court may well have had a valid claim against his landlord.) Moreover, with the development of class actions and their mass settlement, we have seen how (most prominently in the Agent Orange settlement and others that followed it) courts have indeed been able to engineer compensation plan substitutes to traditional tort remedies solutions that, as with legislative plans, have had to mesh concerns for what the funding source (defendants) can plausibly provide (or pay without going into bankruptcy) with the traditional measures of tort recovery that claimants might plausibly win were the matter to go to trial without settlement.

In contrast to these various settings in which an alternative to full tort recovery is arranged, what is to be emphasized is that victims injured or killed by large earthquakes and hurricanes do not usually have ready defendants to sue who provide critical public goods and services (although some inventive lawyers will often find some actor – say, the home builder – to bring a claim against). This fundamental difference might best explain why benefits made available to 911 victims and potential nuclear accident victims are more generous than have typically been provided to "natural" disaster victims.

In today's world, there are reasons to doubt that most large public utilities actually need tort liability limits in order to assure the ongoing provision of critical public services (perhaps the prospect of a large nuclear accident aside). After all, the capacity of the liability insurance industry is much larger that it was in earlier times, and, in the end, we have seen how companies can go into bankruptcy, deal with their creditors (including tort claimants), and carry on with their operations. But even assuming valid concerns remain about tort law's potential to undermine the continued delivery of public services by *private* enterprises, there is a certain irony here.

As noted, when tort rights against these enterprises are restricted, government seems to couple that with alternative compensation arrangements of some sort (we see this as well with respect to worker injuries and workers' compensation, with the presumed victims of childhood vaccines and the Childhood Vaccine Compensation Plan, and so on). Yet, when it comes to government, the deepest pocket of all, we have not provided in advance for specific catastrophe-related benefits to victims of government *failure* even though we have largely in advance precluded those victims from recovering in tort.

Several explanations might be at work here. First, perhaps we have become so accustomed to the principles of sovereign immunity that the "starting point" in our thinking is that, whereas enterprises are legally responsible for the catastrophic consequences of their fault, government is not. From that viewpoint, restricting claims against private actors may naturally seem to require an alternative, whereas when it comes to the fault of public officials, a compensation plan alternative may seem quite special.

A second explanation is that FEMA is the public alternative that stands ready to provide public help when government fails. The problem with this explanation, however, is that FEMA benefits are equally available for natural disasters where government was not at fault, and that seems inconsistent with the 911 Plan and nuclear power schemes in which more generous benefits are offered in lieu of tort.

In the end, perhaps the best explanation is that, rather than making special arrangements ex ante for catastrophic losses caused by government failure, political leaders wait until after the event, and when government is seen to have been at fault, they then consider whether special arrangements (better than FEMA) are appropriate. And, indeed, this might explain why Congress has provided more special funding for individual victims of Katrina than it appears to have provided to victims of prior hurricanes that also left catastrophic devastation in their wake.

C. The Government's Provision of Compensation.

As we have explained, there are numerous reasons why the government might be justified in providing compensation for at least some forms of catastrophic loss, and the government has responded by providing various sorts of compensation. What must not be lost sight of it that the government's provision of compensation for the consequences of catastrophic events further underscores the importance of insurance. To the extent that individuals receive insurance proceeds for their losses, they arguably have a reduced need for compensation. This suggests that insofar as the government ought to compensate the victims of any particular catastrophe, it might at least partially satisfy that obligation by helping to develop and maintain insurance programs as described earlier in Part II.

More specifically, then, in the event that the government decides to provide special compensation, the appropriate form of the program depends upon a variety of factors.

1. The government should decide whether the compensation program importantly rests upon the value of providing full compensation or instead on the welfare/social insurance value of meeting basic need – or perhaps some mix of the two.

Discussion. An objective of full compensation corresponds to the value of tort law and therefore may be appropriate when the compensation scheme displaces, either in whole or in part, any tort remedies that might otherwise be available to the victims. When the compensation scheme does not otherwise impinge upon tort remedies, a compensation program that addresses basic needs is perhaps more defensible.

The full compensation objective of tort law is intended to make each victim "whole," and so it routinely requires higher awards for more wealthy victims (due to their higher lost income or destruction of their more valuable property) and lower awards for those with less wealth. A government program that distributes resources in such an unequal manner ordinarily requires special justification, such as the displacement of a tort right that would otherwise entitle the individual to such an award. Moreover, a program that is designed to "entice" victims to opt for it instead of tort law may well have to be more generous if it is to succeed than one that creates an involuntarily substitute. Compare, for example, the typically more generous benefits of the Childhood Vaccine Compensation program with the typically less generous benefits of workers' compensation.

2. Many losses that could be covered by a compensation program are also covered by private insurance, most notably health insurance and property insurance. In formulating a compensation program, the government should decide whether the compensation program covers losses against which the individual is otherwise insured.

Discussion. A compensation program covers losses, and so it may seem axiomatic that it would not compensate any loss otherwise covered by the individual's insurance. Nonetheless, the common law tort damages rule ignores those other sources as "collateral" and awards recovery to victims for losses that have already been otherwise compensated. (Especially in recent years, however, some states have, to various degrees, reversed this "collateral sources" rule.) Victims with double recovery are then left to sort out with the collateral source provider whether that provider must be reimbursed, per contract provisions or principles of equitable subrogation. The point for our purposes is that, in providing for the compensation of victims of catastrophic events, the government must decide the extent to which benefit source will be primary (and which secondary) by once more looking to the contrasting perspectives of tort and welfare/social insurance.

Interestingly enough, on this dimension the 911 Plan adopted a strong version of the welfare/social insurance perspective by reducing benefits under the plan by the amount received from other sources including life insurance, even though life insurance remains ignored by tort law in those states that have most aggressively reversed the collateral sources rule. By contrast, it would appear that were a large nuclear power accident to occur in a state that continues to follow the common law rules, then benefits under the Price-Anderson law would be paid in ignorance of other sources of victim compensation.

3. Of the variety of losses that might be compensated, the government should give special consideration to whether individuals who are physically injured by (and survivors of those killed by) catastrophic events should be compensated for non-monetary harms, such as pain and suffering. These types of injuries involve distinctive compensatory issues that can justify distinctive treatment.

Discussion. Again, the provision of what is often termed non-economic loss is justified by the tort objective of full recovery, while the basic loss principle of the welfare/social insurance value is generally thought to leave these losses on victims. Moreover, if non-monetary losses are to be compensated at all, then government needs to consider whether the maximum award should simply be capped (so as to reduce the payout of the plan) and whether a schedule of awards should be established for similar harms (so as to provide more consistent and less individualized recovery, and to reduce the costs of making difficult individualized determinations). For survivors of those killed by the 911 terrorism, Kenneth Feinberg adopted the latter approach in the way he administered the 911 Plan, by awarding \$250,000 for every life lost plus an additional \$100,000 if there were a surviving spouse and a similar additional sum for every surviving child.

To illustrate some contrasting alternatives, (a) no such non-monetary-loss-restricting arrangements are in place with respect to possible nuclear accidents (with regular tort rules that call for individualized non-monetary awards therefore applying), and (b) claimants under the Childhood Vaccine Compensation program face a cap on pain and suffering awards of \$250,000. (Note: under Price-Anderson, presumably the state law of damages of the place of the accident would apply.)

4. In formulating a compensation program, the government should consider how it might affect individual decisions to purchase insurance.

Discussion. If the governmental compensation program requires a deduction of the insurance proceeds to which a victim is entitled, that deduction might affect the individual decision of whether to purchase insurance in the first instance. For example, as already noted, the 911 Plan required a deduction of life insurance. Yet that requirement had no impact on any individual's earlier decision to purchase such insurance. By contrast, the availability of FEMA benefits (which also take into account the availability of insurance) might well impact some people's willingness to purchase flood or earthquake insurance.

In dealing with this matter, government has more than one way to think about addressing the problem. One strategy is to work on ways to get nearly everyone to obtain insurance in advance. This could be largely achieved by making insurance mandatory, or partly achieved by substantially subsidizing Some of the relevant considerations concerning those possibilities are discussed in Part II above. A different strategy addresses the matter on the compensation benefit side. In approaching the problem from this angle, government could simply treat all claimants equally, regardless of whether they had insurance. But this could be sharply inconsistent with the welfare/social insurance objective of the compensation plan, and it still might have the effect of discouraging the purchase of insurance. So, yet a different approach would be to penalize on the benefit side those who could have, but failed to, buy insurance in advance, thereby discouraging people from counting on the compensation plan and choosing not to insure. However, applying this principle too harshly may undermine the key goals of the compensation plan itself.

Perhaps FEMA's normal approach is explicable as a pragmatic compromise. To the extent you already have private insurance to rebuild your home, FEMA will not cover that need; but to the extent you do not, the conventional assistance government provides is a subsidized loan, not a grant, and that loan has a moderate cap on it (\$250,000).

Perhaps the basic point to keep in mind, then, is that if government compensation is routinely provided in a broad enough set of cases, individuals and enterprises might treat the compensation scheme as a form

of insurance, thereby undermining their incentive to pay for their own insurance.

5. Charitable gifts.

When a catastrophic event occurs, there is often an outpouring of altruistic activity on behalf of the victims, including charitable giving directed towards the victims via organizations like the Red Cross. Any compensation program has to decide how to integrate its benefits with the funds that victims and their families receive from these charitable contributions.

From the tort perspective, these gifts are ignored and victims, in effect, are entitled to double recovery. (This is perhaps best justified on the lesser of evils principle – better that the victim gets overcompensated than the tortfeasor benefits from a gift clearly not meant for him or her.)

From the welfare/social insurance perspective, it would initially seem that, if victim need is reduced by charitable contributions, a compensation plan should take that into account and reduce what it otherwise provides. (This, for example, seems to be the rule under state Victims of Violent Crimes schemes.) Yet, there are other relevant considerations here too. For one thing, fully deducting the receipt of charitable gifts might erode charitable giving, not only with respect to the specific catastrophic event but more generally, as people begin to assume that somehow this is a governmental responsibility. Many would bemoan that effect. Furthermore, most charitable donors surely did not think of what they were doing as saving taxpayer money, for example.

For this reason, even though it arguably took a very aggressive reading of the 911 Plan statute to get there, many applauded Feinberg's decision not to count charitable receipts in determining claimant benefits under the scheme. (A rough alternative might be to try to get the charities to deal with the immediate aftermath of the catastrophic event and have the organized plan deal with longer-term need.)

6. A mental experiment – imagining a revamped scheme for large nuclear reactor accidents.

Although the Price-Anderson Act has been amended several times, its original core features have been maintained. Perhaps legislative inertia,

along with the lack of any real experience with the plan (fortunately), well explain a decision to stick with what we have. Yet, given our experience with other schemes it is easy to imagine that this catastrophic risk might be dealt with differently in its benefit parameters.

- Personal injury and death claims might be given first priority against the fund (over property damage and related business income loss claims, the latter of which are on a par with the personal injury and death claims under the current plan)
- Benefits for personal injury and death might be made broadly comparable to those under the 911 plan as to both non-monetary loss and income replacement. (That is, a flat \$250,000 perhaps inflation-adjusted as a non-monetary loss payment for each death perhaps supplemented with an extra flat sum for family member survivors and generous income replacement for nearly all killed or disabled wage earners, but perhaps with income replacement fading out for the top 1 or 2 percent of American earners something that it appears may have been done under the 911 Plan.)
- Property damage (and related) claims would come second against remaining fund assets. But their coverage would importantly depend on what government may be able to do to deal with the current exclusion from property insurance of damages caused by nuclear accidents.