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COMPENSATION
FOR LOSSES FROM THE
9/11 ATTACKS

LLOYD DIXON
RACHEL KAGANOFF STERN



INSTITUTE FOR CIVIL JUSTICE

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1200 South Hayes Street, Arlington, VA 22202-5050
201 North Craig Street, Suite 202, Pittsburgh, PA 15213-1516
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Summary

The terrorist attacks of September 11, 2001, caused tremendous losses of life, health, property, and income. The response of the federal government, private insurers, and charities to the losses experienced by individuals and businesses were of a scope and scale never before seen. Congress limited the role of the tort system and set up the September 11th Victim Compensation Fund (VCF) to provide compensation to those who were killed or suffered serious physical injuries in the attacks. Soon after the attacks, President Bush promised \$20 billion to help the New York City area recover from 9/11. Insurers paid out far more than they had for any other single event in U.S. history. Charitable giving and distributions from charitable organizations were unprecedented.

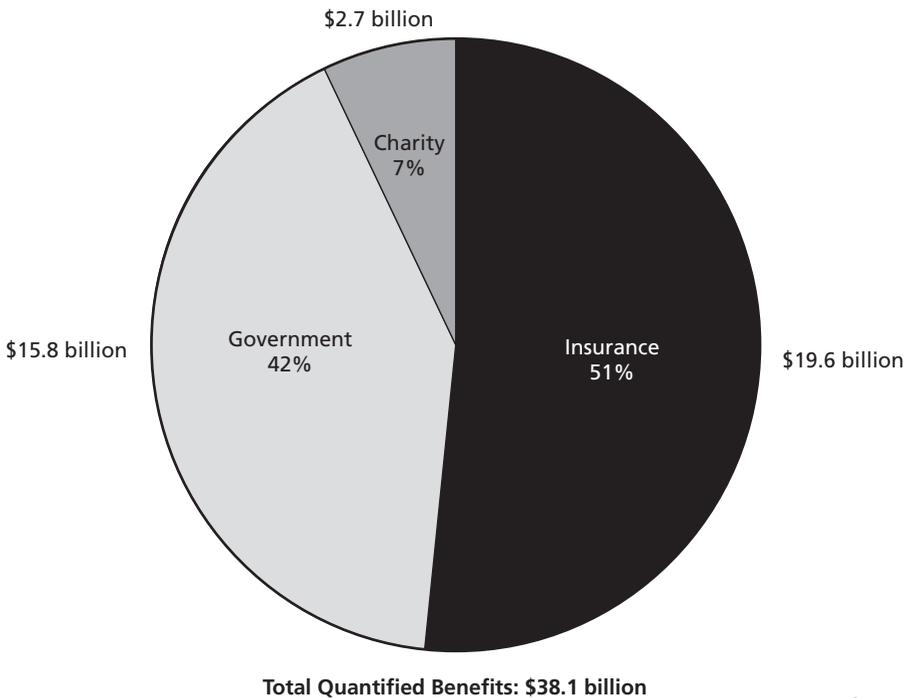
The institutions, programs, and policies that provided benefits to businesses and individuals affected by the 9/11 attacks can be thought of as a system composed of four primary compensation mechanisms: insurance, the tort system, government programs, and charity. This report provides a comprehensive description of how the compensation system as a whole operated after 9/11 and provides an assessment of the response for each group of victims—those who died or were seriously injured, those in New York City who were injured by environmental exposures or who suffered emotional injuries, residents of Lower Manhattan¹ who experienced property and financial losses, workers in New York City who were economically affected by 9/11, and New York City businesses that suffered property damage and declines in revenue and profits. This report also identifies issues that should be addressed in developing policies for compensation for losses in the event of future terrorist attacks. The findings are based on analysis of a comprehensive set of published reports, articles in academic journals, pieces from the popular press, and a series of structured interviews with a wide range of key stakeholders in New York City.

¹ We use the term *Lower Manhattan* to refer to the area south of Canal Street. See Appendix D for a map of that area.

Total Quantified Benefits

Figure S.1 illustrates the magnitude of the benefits provided to those killed in the attacks at the World Trade Center (WTC), the Pentagon, and the Pennsylvania crash site and to businesses and individuals in New York City affected by the attack on the WTC. The figure offers only a rough estimate of the benefits because some benefits could not be quantified, and other benefits were estimated with considerable uncertainty. Overall, we were able to capture \$38.1 billion in expenditures, which we describe as “quantified benefits.” Payments by insurers accounted for more than half of the total, and payments by government programs accounted for most of the rest. Despite their unprecedented scale, charitable distributions constituted only a modest share of the overall benefits. As of this writing, no payments have been made through the tort system. Some tort cases are being pursued, but it will be some time before the tort cases that have been filed are settled.

Figure S.1
Quantified Benefits by Compensation Mechanism



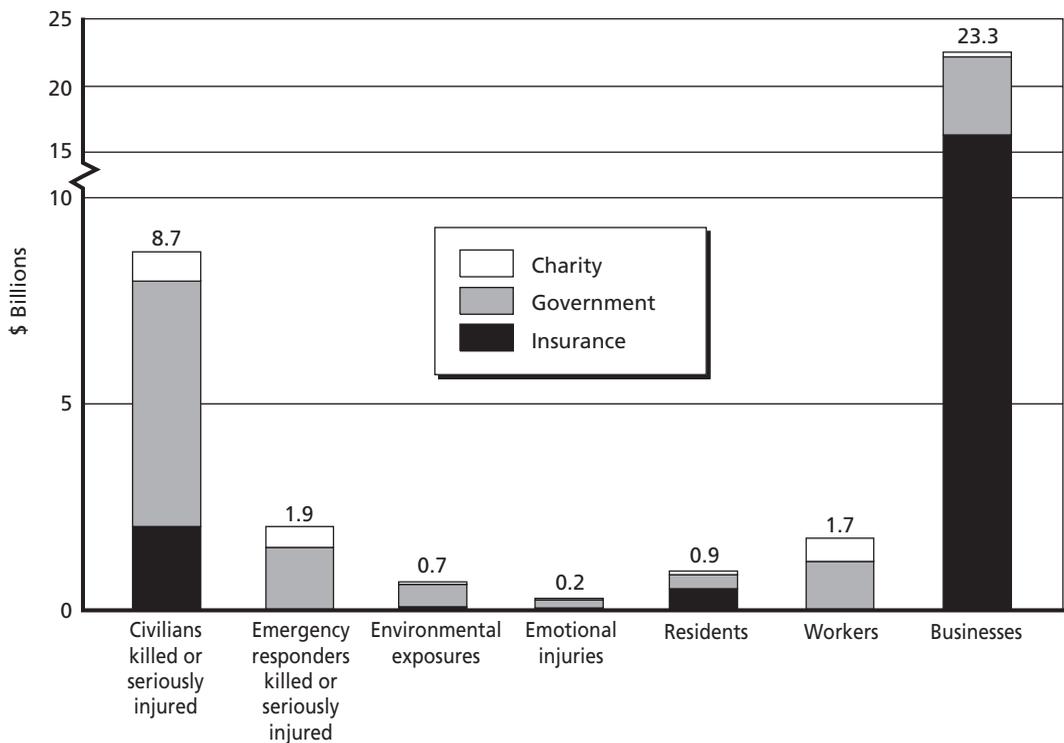
RAND MR264-S.1

NOTE: The government total does not include assistance to airlines or benefits paid for the repair of public buildings, the transportation system, or other components of the public infrastructure in New York City.

Figure S.2 shows the total quantified benefits for each of the victim groups examined in our analysis. For each victim group, the figure denotes the benefits provided by the various compensation mechanisms.²

The benefits we were able to quantify for those who were killed or seriously injured (the first two bars in Figure S.2) amount to nearly \$10.6 billion, or 28 percent of the total across all victim groups. Emergency responders received \$1.9 billion of that amount, or 18 percent of the benefits going to the dead and seriously injured, although emergency responders accounted for only 14 percent of those who were killed or seriously injured.

Figure S.2
Quantified Benefits by Victim Group and Source of Benefits



RAND MG264-S.2

NOTE: The first column, reading from left to right, includes benefits for those killed or seriously injured at the World Trade Center, the Pentagon, and the Pennsylvania plane crash site. The figure does not include \$650 million in unallocated charitable benefits.

² Individuals can be in more than one victim group. For each group, we focus on the benefits for an individual in his or her capacity as a member of that group.

One of the most striking findings is the large proportion of overall benefits that went to businesses: \$23.3 billion, or 61 percent of the total. The high proportion of benefits going to businesses reflects both the considerable property damage suffered by businesses in the attacks and the substantial effects of the attacks on the New York City economy.

The benefits provided to workers also reflect the extensive economic impact of 9/11. The aid provided directly to workers is much less than that provided to businesses, but workers also indirectly benefited from benefits provided to businesses.

Figure S.2 also shows how the source of benefits varied across the victim groups. Businesses were the most dependent on insurance, receiving benefits through property damage and business interruption policies; those who were killed or seriously injured were compensated primarily by the government, although they also received a substantial share of benefits from life insurance and charity. Workers, emergency responders, and those with emotional injuries were the victim groups that received the highest proportions of their total benefits from charity (although no group received more than one-third of its total benefits from charity). Each victim group received a substantial proportion of the benefits that we were able to quantify from the government. For example, workers received more than two-thirds of their benefits from the government.

Performance of Each Compensation Mechanism

Insurance

Insurers were able to mobilize hundreds of adjusters to evaluate and process claims after 9/11. Many of those we interviewed praised the insurance industry's quick response to claims and generous interpretation of their policies. Nevertheless, some problems with business-interruption insurance were reported, including significant disputes over business-interruption coverage and complaints about slow payments on business-interruption claims.

More than 85 percent of insurance payments went to businesses. Those who were killed or seriously injured received most of the remainder, with a small percentage going to those with residential property damage. Even in the first two groups, however, insurance payments were often modest compared with losses. Individuals usually carried small amounts of life insurance relative to their annual earnings. Many small businesses had very limited or no business-interruption insurance.

Without the huge insurance payments, the economic disruption caused by the attack on the WTC would have been much greater. Greater demands for assistance would have been placed on government and charities, and a greater portion of the losses likely would have been borne by businesses and their workers.

Government Programs

The government response went far beyond that seen in most disasters. While the amount of resources expended was unprecedented, performance of the various government agencies was uneven. Most interviewees positively assessed the response of the VCF, unemployment insurance, Medicaid, and Social Security programs to the crisis. On the other hand, the Federal Emergency Management Agency (FEMA) was roundly criticized by our interviewees, and by the media and other analysts, for their slow response, inflexibility in adapting programs to the particular circumstances of the attack on the World Trade Center, and its poor coordination with charities. Because FEMA's programs for responding to the broader economic impacts of a disaster are limited, FEMA was poorly suited to responding to a disaster with such large economic ripple effects on workers and businesses. Criticism has also been levied against the U.S. Environmental Protection Agency (EPA) and state and local environmental protection groups. Both our review of published material and perspectives obtained from interviewees indicate that these groups handled the pollution threats poorly.

Charity

Charities were commended by many of those we interviewed for responding quickly and for distributing substantial amounts of money in short order. In many cases, charities were able to mobilize staff and provide assistance more quickly than FEMA or other government programs were able to do.

Charities also identified needs that were missed by government and insurance programs. In particular, they provided assistance to undocumented workers, others who did not qualify for unemployment insurance, and small businesses. Charities also drew attention to—and provided important resources for—mental health needs, an area that prior to 9/11 had not been emphasized in federal disaster relief programs. Although charities were praised for identifying unmet needs, the largest charities were criticized by some observers for focusing too much of their resources on Lower Manhattan and paying too little attention to other parts of the New York City metropolitan region.

Coordination among and between charities and the government was poor, particularly right after the attack. The bigger charities did not talk to the smaller charities, and for many months there was almost no way one charity could know what an applicant had received from another charity. As a result of this lack of coordination, there were repetitious application forms and possible duplication of benefits. Charities should be credited for acknowledging the coordination problem and for setting up the 9/11 United Services Group to address the problem. Charities did not coordinate well with FEMA, although this was likely due as much to FEMA's communication strategy as it was to choices made by the charities.

The charitable response was strongly criticized by interviewees representing higher-income earners who were killed or seriously injured in the attack on the

WTC. They were resentful because, in their view, the charities had raised money on the pretext that it would be distributed to survivors of the dead and to the seriously injured, but, instead, large amounts of money were distributed to other victim groups. Charities were criticized by others, however, for going far beyond their traditional role of meeting basic needs (for which they required special exemptions from the Internal Revenue Service). Charities distributed large amounts of aid to the survivors of those who were killed and to the seriously injured, when arguably their basic needs were well met by the VCF.

Tort

Liability caps and the Victim Compensation Fund have limited the role of the tort system in providing compensation after 9/11, at least so far. Nearly all of the families of those who were killed decided to go through the VCF for benefits, and a large number of emergency responders who initially considered claims for respiratory injuries against the City of New York dropped those suits and applied to the VCF instead. Some tort cases are being pursued, however. Approximately 70 families are pursuing wrongful death cases; a class-action suit has been filed on behalf of site cleanup workers; suits have been filed against the EPA on behalf of residents and workers in Lower Manhattan and Brooklyn; and lawsuits have been filed by businesses, individuals, and the Port Authority of New York and New Jersey against the Saudi royal family, the Saudi government, and al Qaeda. It will be some time before solid estimates are available for the amount that will ultimately be paid out through the tort system.

System Performance by Victim Group

We assess the benefits provided to the various victim groups in terms of two fundamental goals for a compensation system: equity and economic efficiency. In most cases, we are not able to directly assess whether specific equity and efficiency goals have been or will be met; rather, we describe key equity and efficiency issues raised in the process of compensating various groups of 9/11 victims.

Corrective justice and distributional justice are two concepts of equity. If *corrective justice* is the goal, benefits are considered a means of correcting the wrong inflicted. *Full corrective justice* would require that benefits be equal to actual losses, both economic and noneconomic. *Distributional justice* refers to the fair distribution of benefits across beneficiaries, based on need or some other measure of merit. *Economic efficiency*, by comparison, calls for allocating productive resources to maximize the social value of what we as a society produce. Economic efficiency includes making sure that benefits are distributed with low administrative and other transaction costs, providing incentives to individuals and businesses to maximize economic activity,

and providing incentives to individuals and businesses to take appropriate security measures. Equity and efficiency goals may conflict with or work to reinforce each other, depending on the circumstances.

Civilians Killed or Seriously Injured

Almost all civilians who were killed or seriously injured³ in the 9/11 attacks decided to file claims with the VCF. Awards from the VCF ranged from \$250,000 to \$7.1 million and averaged \$2.08 million. Quantified benefits for the 2,551 killed and 215 seriously injured totaled \$8.7 billion, or an average of \$3.1 million per recipient, with 69 percent of total benefits coming from the VCF, 23 percent from insurance, and 8 percent from charity.

For those killed in the attacks, we evaluate economic loss in terms of the probable contributions the deceased would have made to his or her survivors should the deceased have lived. Economic losses are fully compensated if the financial situation of the survivors is the same as what would have been expected if the deceased had lived.

Certain features of VCF awards tended to increase compensation relative to economic loss. For example, the VCF did not deduct charity donations or the value of 9/11 tax benefits from its awards. Other features of VCF awards tended to decrease compensation relative to economic loss. For example, no payments were made for lost parental guidance, and some of the assumptions by the VCF likely underestimated lifetime earnings. The VCF capped annual income at \$231,000 in its projections of lifetime earnings and benefits, and the program rules stated that compensation based on income above this level would rarely be necessary to meet financial needs. However, the VCF special master had a large amount of discretion in setting awards for high-income earners. Unfortunately, data are not available on how he exercised that discretion. Insufficient data are available to determine the net effect of these various factors on the degree to which benefits compensated for economic losses, both for those killed and those seriously injured. Individual data from the VCF on projected lifetime earnings, collateral offsets, and awards are needed to evaluate how benefits received by the families of high-income earners compared with their economic loss.

Noneconomic damages are difficult to objectively quantify, and thus it is difficult to assess whether VCF awards for noneconomic damages covered full noneconomic losses. One comparison that can be drawn is between VCF awards for noneconomic damages and noneconomic awards from jury verdicts in aviation wrongful death cases, although care must be taken when making such comparisons because verdicts can be subsequently reduced, and the compensation in cases that go

³ We define *serious injuries* as physical injuries that resulted in hospitalization for one day or more in the immediate aftermath of the attack.

to trial is higher than that for all cases, most of which settle before trial. Nonetheless, we found that VCF awards for noneconomic damages were substantially lower than those from a sample of aviation wrongful death cases from the mid-1990s, suggesting that the VCF did not provide full compensation for such losses.

In terms of distributive justice, the compensation provided to civilians who were killed or seriously injured in the attack on the WTC raises fairness issues both within the set of individuals killed or seriously injured and between those killed or seriously injured and other groups of victims. First, tailoring payments to expected lifetime earnings meant that some families received considerably more than others. Those who received less wondered why the lives of their loved ones were less valued than those of others who made more money. It is not clear, however, that a more equal distribution of payments would have resulted in any less divisiveness among beneficiaries, given the complaints about the VCF from families of the highest wage earners. Second, concerns were raised by a substantial number of interviewees about the distribution of benefits across victim groups. None of those we interviewed disputed the tragic losses inflicted on those families whose loved ones were in the World Trade Center or the Pentagon or on one of the airliners that crashed on 9/11. However, some interviewees felt that a higher share of resources should have gone to other victim groups, such as workers or small businesses. Some interviewees noted that previous victims of terrorist attacks in the United States received no comparable set of benefits, that benefits for military personnel killed in the line of duty are nowhere near as large, and that no other set of crime victims in the United States has ever received this level of assistance from federal, state, or local authorities.

Turning to efficiency issues, all those we interviewed felt that the seriously injured and the survivors of the dead faced an enormously complex and confusing array of benefit programs. There was strong support among interviewees for more coordination among charities, nongovernmental organizations (NGOs), and government benefit programs and for a common benefits application form.

Further work is needed before the transactional efficiency of the VCF can be evaluated. Information has not yet been collected on the administrative costs of the VCF and the paid and donated services of attorneys representing claimants. It is difficult to imagine, however, that the VCF did not resolve claims faster and more efficiently than the tort system would have done given the size of the losses, the parties primarily responsible for the attacks, and the complicated liability issues surrounding the events of 9/11.

Emergency Responders Killed or Seriously Injured

Approximately 425 emergency responders were killed or seriously injured in the attack on the WTC. Nearly all filed claims with the VCF. In addition to their VCF settlements, these victims received an average of \$880,000 more in charitable contributions than did the survivors of civilians killed in the attack. As shown in Figure

S.1, approximately one-quarter of the \$1.9 billion in total benefits received by emergency responders came from charities. The large charitable gifts combined with other government benefits not available to civilians meant that an emergency responder killed in the attack likely received \$1.1 million more than a civilian with a similar economic loss. Evaluation of benefits in terms of corrective justice is not yet possible for emergency responders for much the same reason that it is not yet possible for civilians.

The comparatively large benefits received by emergency responders who were killed or seriously injured in the attack on the WTC raised questions of equity. Several interviewees argued that benefits were too high because preexisting salary and pension benefits accounted for the increased risk of death or serious injury on the job. More frequently, interview respondents did not argue that emergency responders were overcompensated relative to their losses, but rather focused on distributional inequities. Some interviewees wondered why emergency responders who were killed in the WTC attack received so much more in the way of benefits than did emergency responders killed in other settings. Others thought that emergency responders received too large a share of the total resources available to all categories of parties adversely affected by 9/11.

Environmental Exposures

Government agencies and charities set up several programs that provided health monitoring and health care services for people who suffered injuries from environmental exposures, but there were some significant shortcomings of the government response to the public health threats posed by the smoke, dust, and debris released during the collapse and cleanup of the World Trade Center, according to both published sources and interviewees. The division of responsibility among the EPA, FEMA, and state and local environmental protection agencies was not clear, and political interference compromised accurate communication of health risks after 9/11. Communication concerning appropriate cleanup procedures after the attack was also poor. A residential cleanup program was established, but the first homes were not cleaned until nearly a year after the attack. Public trust in environmental protection agencies was very low after 9/11.

Quantified benefits for those injured by environmental exposures totaled \$660 million, with 82 percent coming from the government and 9 percent each coming from insurance and charity. (The total amount and percentage provided by insurance would be higher if data on employer-provided health benefits and short- and long-term disability benefits were available.) The VCF provided benefits to those who were at the World Trade Center site during or soon after the attack and who suffered injuries that had surfaced by the time of the filing deadline for the VCF. Charities and government funded health monitoring, health care services, and indoor residential cleaning for others who suffered respiratory problems due to the WTC attack.

Further data on the utilization of these government and charity programs is required before any conclusions can be made about whether the health care and health monitoring needs of those affected by environmental exposures have been met. A major unknown is whether resources will be available to pay for health care for respiratory injuries that might appear in the future. Long-term health effects among emergency responders and site cleanup workers are the greatest concern. Employer-provided health care may be available to these groups, and they may also pursue benefits through the tort system.

The VCF made payments for economic and noneconomic losses to eligible claimants suffering respiratory injuries; however, data on individual economic and noneconomic awards were not yet available as of this writing. Those who were not eligible for the VCF may have recovered some lost wages or other economic losses through workers' compensation, disability, or other programs, but would have to recover noneconomic damages through the tort system.

The benefits for those who were injured from environmental exposures raise some distributional-justice issues within this victim group. Noneconomic damages were available for some with respiratory injuries, but not others. Also, it remains to be seen how benefits for those with latent injuries from 9/11 will compare with benefits for those with injuries that manifested themselves quickly.

Emotional Injuries

The effects of 9/11 on the mental health of New York City residents and workers were, by all accounts, extensive. Although the response by government and charities was unprecedented, it took some time for the key programs to be put in place. We were able to quantify \$210 million in mental health benefits, with 67 percent of those benefits provided by government, 19 percent by charity, and 14 percent by insurers. If dollar figures on mental health care covered by employer-provided health and employee-assistance plans were available, the percentage paid by insurance would be higher.

Generous charitable programs for both short-term and longer-term care augmented government programs and insurance for those with emotional injuries who lived or worked south of Canal Street. Utilization of charitable programs was lower than anticipated, perhaps indicating that demand was satisfied. However, further analysis of the implementation, accessibility, and utilization of the various mental health programs is required before conclusions can be reached about whether the mental health care needs of those who lived or worked below Canal Street were met. The treatment needs of those who lived or worked above Canal Street were likely satisfied to a lesser extent than the treatment needs for those below Canal Street. This population was not eligible for many of the charity benefits available in the first few months after the attacks, and delayed implementation of FEMA's Project Liberty—a program that provided free crisis counseling, education, and referral services to peo-

ple affected by the 9/11 attacks—may have meant that some immediate needs were not met. There was also a mismatch between the short-term nature of FEMA’s mental health programs and the long-term mental health impact of the 9/11 attacks, raising concerns that longer-term needs will not be met.

Victims who are or were emotionally injured may also have sustained economic losses (such as wage loss due to inability to work) and noneconomic losses (such as pain or suffering) due to their condition. Workers’ compensation and unemployment benefits covered at least part of the economic losses in some cases, but we are not able to determine to what degree they did. Benefits for noneconomic loss were not available from any of the mental health benefit programs.

The experience of 9/11 highlighted the short supply of mental health clinicians who are trained to treat disaster trauma and the need to assess what investments in mental health provider capacity should be made to prepare for the possibility of a future attack.

Residents

Quantified benefits not related to personal injury for residents of Lower Manhattan totaled \$920 million, with 54 percent provided by property insurance, 37 percent by government programs, and 9 percent by charity. Payouts by insurers to Lower Manhattan residents were substantial, charities mobilized quickly, and the federal government financed unprecedented incentives to induce individuals to remain in or move to Lower Manhattan.

Dollar figures are not available on how the benefits provided to residents of Lower Manhattan compare with their losses for property damage and additional expenses not related to personal injury, but individuals we interviewed for this study did not identify residents of Lower Manhattan as being undercompensated. The incentive programs for residents of Lower Manhattan did raise some distributional equity issues. Some interviewees criticized government programs for offering rent subsidies and other benefits to households that were not in Lower Manhattan at the time of the attack and for focusing too many resources on high-rent areas.

Efforts to bring back residents to Lower Manhattan address the efficiency goals of a compensation system. The aim of these efforts was to put underutilized housing resources back into use and to increase the overall level of economic activity in the area. The residential market in Lower Manhattan did recover, but it is difficult to discern the marginal effect the Residential Grant Program and other similar programs had on the recovery process. When evaluating the advantages and disadvantages of these revitalization efforts, the security ramifications of encouraging large numbers of people and businesses to return or relocate to Lower Manhattan should also be considered.

Workers

The events of 9/11 disrupted a highly integrated economy, and the economic ripple effects were far more wide-ranging and persistent than those from most disasters. The existing social safety net cushioned the losses to some extent. Unemployment insurance programs paid out substantial sums in New York City, and other programs were expanded, reflecting the perception that preexisting programs were not sufficient to respond to a disaster with such broad economic effects. Gaps in compensation for losses remained, however. Unemployment benefits did not cover full wage loss and were unavailable to undocumented workers and to those whose hours were reduced but who were not laid off after 9/11. The situation of immigrant workers, and especially undocumented workers, was a source of concern among those we interviewed. Charities attempted to fill in some of the gaps by allocating more than one-half billion dollars to workers economically affected by the attacks. Quantified benefits for workers totaled \$1.7 billion, with approximately two-thirds provided by government and one-third by charity.

Despite this extraordinary response, benefits for workers come up short when held to a standard of full corrective justice for economic losses. The social welfare system in the United States historically has not attempted to provide full compensation to workers affected by economic downturns or other adverse events. This limitation is by design, partly due to budgetary concerns and partly due to concerns that full compensation for job loss will reduce incentives to find new work.

The benefits provided to workers also raised questions of distributional fairness. Interviewees across a broad spectrum of stakeholder groups thought that workers were among the least well compensated of the victim groups. The dissatisfaction of many with the benefits available to workers was caused in part by raised expectations for assistance due to the large amounts paid by the VCF to those who were killed or seriously injured and the \$20 billion in federal aid earmarked for New York City after 9/11. Questions also arose over the distribution of benefits among workers. In the course of our interviews, dissatisfaction was expressed with the distinction between workers who were “directly” and “indirectly” affected by the attacks. The largest charities tended to focus their assistance on those who had worked in the World Trade Center or south of Canal Street, and many government programs initially focused on workers located in or near Ground Zero. Fewer resources were available to those in the metropolitan area who had worked outside Lower Manhattan.

The most important aspect of the compensation system for workers in terms of efficiency is that workers maintain strong incentives to get back to work. Full compensation works against such incentives, which illustrates one of the tradeoffs between equity and efficiency considerations that should be considered in designing systems for compensating losses from a terrorist attack.

Business

Businesses in New York City sustained major property damage, their operations were disrupted, and the customer base of many small businesses was decimated. Businesses received a tremendous amount of compensation, assistance, and services: \$23.3 billion, or 61 percent of the total quantified benefits paid to all victim groups. Insurance payments accounted for nearly 75 percent of the quantified benefits to businesses. While benefits were huge, business losses were undoubtedly even larger. Property damage to businesses in New York City totaled an estimated \$16 billion, but insurance payments for property damage came to roughly \$7.5 billion. Insurers made large payments on business-interruption and event-cancellation policies, but even so, lost profits caused by the attacks were not fully addressed.

Small businesses were poorly compensated for their losses. The government stepped in to cover some of the losses of small businesses that had not purchased insurance, but studies suggest that these programs covered only a modest portion of uninsured losses. Several factors made it difficult to reach small businesses: the slow realization by policymakers and the public that small businesses were in serious need of assistance, the difficulty in reaching the culturally diverse population of small-business owners, and the unattractiveness to small businesses of loans secured by personal collateral when the future of the Lower Manhattan economy was so uncertain.

From a distributional justice perspective, many of those we interviewed thought that small businesses were one of the least well compensated of the victim groups after 9/11. Many interviewees also thought that benefits to businesses could have been better targeted based on need. Some pointed out that most benefits programs were focused on businesses in Lower Manhattan, yet many small businesses throughout New York City and the metropolitan region were severely affected. One investigation found that a sizable proportion of monies from the World Trade Center Business Recovery Grant program for small businesses went to finance and law firms, firms that some observers suspected were in less precarious financial circumstances than other small firms.

From an economic efficiency point of view, the most salient aspect of business benefits was the unprecedented effort to revitalize Lower Manhattan. Programs targeted at economic revitalization amounted to \$4.9 billion, or approximately 20 percent of total business benefits. The economy of Lower Manhattan has largely recovered since 9/11, but it is difficult to determine the role that revitalization programs played in the recovery compared with the influence of general economic conditions. A full evaluation of the costs and benefits of revitalization efforts should include several considerations that are easy to overlook. First, the evaluation should consider the extent to which revitalization programs reduce incentives for businesses to buy terrorism insurance against losses from future attacks. Second, the impact of revitalization efforts on national security should be considered. Rebuilding Lower Manhattan may recreate a prime target for terrorists, and the evaluation of revitalization pro-

grams should also consider whether rebuilding Lower Manhattan is preferable to reducing its attractiveness to terrorists by encouraging businesses to disperse to suburban areas.

Moving Forward

The benefits received by individuals and businesses affected by the September 11 attacks were the result of a unique combination of insurance, tort, government programs, and charity. There is no guarantee that a similar mix of resources will be available for the victims of future attacks: Congress may not reauthorize the VCF for future attacks, purchase of terrorism insurance after 9/11 has been spotty even with the federal Terrorism Risk Insurance Act, and one cannot be sure that the charitable response will be so generous next time. There is also no general agreement in the public policy community on the role each mechanism should play in a compensation system for individuals and businesses affected by terrorist attacks. Analysis of the compensation system for losses from 9/11 suggests several issues that policymakers should consider as they formulate policies for compensation and assistance in the event of a future attack.

Issues Related to Personal Injury

Benefits for Those Killed or Seriously Injured. Discussion is needed on the extent to which those who are killed or seriously injured by a terrorist act should receive benefits that differ from those received by victims of other crimes or other adverse events. If there is a special obligation to compensate victims of terrorist acts, policymakers should consider how compensation for losses should be split between citizens and the government. A fixed flat amount of compensation, for example, would place the responsibility on high-income earners to purchase life insurance to cover losses above the government payment.

Benefits for Those Injured from Environmental Exposure. Potential exposure to hazardous substances raises a new issue in disaster response policy. Programs for cleaning up hazardous substances released by attacks and criteria for awarding government compensation to individuals who have been injured from environmental exposure should be evaluated. In particular, policies regarding compensation for latent injuries should be considered.

Benefits for Those with Emotional Injuries. Current government programs are not well suited to treating or providing compensation for long-lasting emotional injuries that may result from terrorist attacks. Consideration should be given to the costs and benefits of programs to address longer-term injuries and to efforts to increase the capacity of the mental health system to treat emotional injuries caused by terrorist attacks.

Issues Related to Financial Injuries

Programs for Workers Affected by a Terrorist Attack. Policymakers should consider the extent to which the existing social safety net provided by government programs should be augmented for those directly, and particularly for those indirectly, affected by an attack.

Benefits for Small Firms. Policymakers and policy analysts should consider whether equity or economic efficiency considerations warrant expansion of the benefits given to small firms after a major terrorist attack. The degree to which assistance programs should emphasize grants as opposed to emphasizing low-interest loans should also be considered.

Economic Revitalization Goals. The extent to which government programs should strive to restore economic activity in affected areas to pre-event levels should be considered in the policy debate over compensation for losses due to terrorist attacks. Domestic security should be factored into an analysis of the costs and benefits of revitalization efforts. For example, dispersing economic activity may reduce the number of attractive targets for terrorists but may also result in lower economic productivity.

Undocumented Workers' and Business Owners' Eligibility for Benefits. With the notable exception of the Victim Compensation Fund, undocumented workers and business owners were excluded from most government assistance programs after 9/11. Many people in these groups were in precarious situations financially before 9/11 and fell into dire financial straits after the attacks. Policymakers should consider whether undocumented workers and business owners warrant special treatment following a large-scale terrorist attack, or whether the needs of these groups should be left to charity to satisfy.

Issues Regarding the Role of and Coordination Among the Four Compensation Mechanisms

The Role of Insurance. Policymakers and policy analysts should consider goals for the role insurance should play in a terrorism compensation system and evaluate what policies would best achieve the agreed-upon goals. For example, the goal may be for losses to be covered primarily by insurance payments. To achieve such a goal, the federal government might require all property/casualty insurance policies to cover terrorism losses (as is done in France and Spain). Alternatively, terrorism insurance might be viewed as a supplement to government-provided benefits. For example, the government might provide modest payments for business interruption after a terrorist attack and then leave it up to businesses to purchase supplemental business-interruption insurance.

The Role of Liability. If no restrictions are placed on tort remedies, and absent an attractive government program for compensating losses, the tort system may be the primary means available to businesses and individuals for recovering losses in the

event of a future terrorist attack. Thought needs to be given to what the appropriate role of liability should be in such an event. The main disadvantage of tort in recovering losses from terrorism is that the parties primarily responsible for the damages probably lack the resources to compensate victims or are beyond the reach of U.S. courts. Tort liability, however, may create incentives for firms to adopt security measures that reduce the vulnerability of their employees and customers to terrorist attack. Security implications thus should be considered when evaluating the role tort should play in a terrorism compensation system.

The Role of Charity. As policies on terrorism compensation are developed, thought should be given to the role that charities should be expected to play in future attacks. By reducing suspicions about how funds will be spent, a widely accepted role for charities may make it easier for them to raise funds in the future. The key issue for charities is whether they should move beyond their traditional role of giving to meet basic needs and instead compensate victims for some or all of the losses caused by a terrorist attack. Policymakers and policy analysts should evaluate how to best take advantage of the ability of charities to distribute aid quickly, to contact difficult-to-reach populations, and to fill gaps left by other compensation mechanisms.

The Extent to Which Programs Should Be Established and Funded in Advance of or After an Event. Compensation programs can be set up and funded before an event, decided on after an event, or some mix of both. Setting up government compensation programs in advance of a terrorist attack may encourage individuals and firms to determine how they will cover losses that would not be covered by government programs and may strengthen arguments against the creation of additional compensation programs after an attack. Terrorism insurance contracts in effect set up compensation in advance by precommitting resources to be expended in the event of a terrorist attack. Such precommitments by government programs or insurance contracts can also have a downside. They reduce the ability of government, and society more generally, to allocate resources to meet the most pressing needs after an attack. Policymakers should examine the extent to which committing resources in advance serves broad social goals.

Coordination and Sequencing of Compensation Mechanisms. Poor coordination of benefits within and among compensation mechanisms was identified as a problem in our assessment of the benefits received by each 9/11 victim group. Policymakers need to address how such coordination might be improved. Increased coordination will not necessarily come cheaply, however, and its costs must be considered along with its benefits. One approach to improving coordination among benefit mechanisms is to impose a sequence on the order in which government, charity, and perhaps insurance would act in providing benefits. Policymakers and stakeholders more generally should evaluate the advantages and disadvantages of various sequences.

Setting Priorities

The issues discussed above are complex and interrelated. Compensation options should be evaluated in light of the overall goals for the compensation system. Policy analysis can contribute to the decisionmaking process by examining how different options measure up against the various concepts of equity and the extent to which they promote economic efficiency. Domestic security is a particularly important component of overall economic efficiency in this context, and policy analysis can also help policymakers to better understand how domestic security is affected by various compensation approaches. Choosing among alternatives will involve tradeoffs between equity, economic efficiency, and domestic security, and it will be up to policymakers to determine the relative importance of each of these goals.